

# **Network UPS Tools Change Log**

NUT project community contributors

REVISION HISTORY			
NUMBER	DATE	DESCRIPTION	NAME
2.8.2.1827 2.8.2.1840-1840- g09ad17e5b	2025-01-05	Current release snapshot of Network UPS Tools (NUT).	
2.8.2	2024-04-01	Some changes to docs and recipes, libnutscan API and functionality. Added nutconf (library and tool). Fixed some regressions and added improvements for certain new device series.	JK
2.8.1	2023-10-31	Some changes to API, docs and recipes, in particular to simplify local builds and tests (e.g. to help end-users check if current NUT codebase trunk has already fixed an issue they see with a packaged installation). Revived NUT for Windows effort, further improved other OS integrations. NUT became reference for "UPS management protocol", Informational RFC 9271. Documentation files refactored to ease maintenance. More drivers and new driver categories introduced.	JK
2.8.0	2022-04-26	Change of maintainer. Many changes to API, docs (both style and content), and recipes, with a stress on non-regression test-ability, run-time debug-ability, general codebase maintainability, as well as OS integrations (notably nut-driver-enumerator for systemd and SMF service instance maintenance). Added a lot in area of CI support and documented pre-requisite package lists for numerous platforms, and CI agent set-up. Added libusb-1.x support and many new driver categories (and drivers), and daisychain device connection support. Instant commands enhanced with TRACKING to enable protocol-based waiting for completion of a particular INSTCMD or SET operation.	JK
2.7.4	2016-03-09	NUT variables namespace updated, in particular for outlet groups, alarms and thresholds, ATS devices, and battery.charger.status to supersede CHRG and DISCHRG flags published in ups.status readings. NUT network protocol extended with NUMBER type; some API changes.	AQ

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NUMBER	DATE	DESCRIPTION	NAME
2.7.3	2015-04-22	Documentation revised, including some API changes. Added NUT DDL links. NUT variables namespace updated.	AQ
2.7.2	2014-04-17	The nut-website project was offloaded into a separate repository. FreeDesktop HAL support was removed (obsoleted in GNOME consumer). Introduced nutdrv_atcl_usb driver.	AQ
2.7.1	2013-11-19	NUT source codebase migrated from SVN to Git (and from Debian infrastructure to GitHub source code hosting). jNut binding split into a separate project. Introduced libnutclient (C++ binding), al175, apcupsd-ups and nutdrv_qx drivers, Mozilla NSS support for simpler licensing than OpenSSL, and a newer apcsmart implementation. Documentation support enhanced with a spell checker, contents massively updated to reflect project changes.	CL
2.6.5	2012-08-08	New macosx-ups driver, new implementation of mge-shut driver. NUT variables namespace updated. Docs cleaned up and revised.	AQ
2.6.4	2012-05-31	New NUT network protocol commands (LIST CLIENTS, LIST RANGE and NETVER), and socket protocol commands (ADDRANGE, DELRANGE). NUT variables namespace updated. Introduced nut-recorder tool.	AQ
2.6.3	2012-01-04	No substantial changes to documentation.	AQ
2.6.2	2011-09-15	Introduced nut-scanner tool and nut-ipmipsu driver, systemd support, and a new apcsmart implementation.	AQ
2.6.1	2011-06-01	Introduced default.* and override.* optional settings in ups.conf, an ups.efficiency report, and outlet.0 special handling.	AQ
2.6.0	2011-01-14	First release of AsciiDoc documentation for Network UPS Tools (NUT).	AQ



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2.451	2023-08-31	Jim Klimov <jimklimov+nut@gmail.com>	127
2.452	2023-08-30	Ross Williams <ross@ross-williams.net>	127
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2.458	2023-08-13	Tomasz Fortuna <bla@thera.be>	129
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2.463	2023-08-06	Craig Holyoak <craig@helmsdeep.org>	129



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2.484	2023-06-17	Blaz Zakrajsek <zakrajsek.blaz@gmail.com>	133
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2.499	2023-05-13	Jim Klimov <jimklimov+nut@gmail.com>	136
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2.509	2023-04-19	Jim Klimov <jimklimov+nut@gmail.com>	140
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2.597	2022-12-20	Clappier, Eric <EricClappier@eaton.com>	163
2.598	2022-12-08	Jim Klimov <jimklimov+nut@gmail.com>	163
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2.601	2022-12-01	Jim Klimov <jim@jimklimov.com>	164
2.602	2022-11-28	Tiph <titi__13@hotmail.com>	164
2.603	2022-11-27	Florian Weimer <fweimer@redhat.com>	164
2.604	2022-11-25	Jim Klimov <jimklimov+nut@gmail.com>	165
2.605	2022-11-25	Arnaud Quette <ArnaudQuette@eaton.com>	166
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2.6522022-08-29 Jim Klimov <jimklimov+nut@gmail.com> . . . . .	173
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2.664	2022-08-21	Cy Schubert <cy@FreeBSD.org>	177
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2.696	2022-07-26	Evgeny Klimov <klimov@provys.com>	190
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## 1 Introduction

The primary goal of the Network UPS Tools (NUT) project is to provide support for Power Devices, such as Uninterruptible Power Supplies, Power Distribution Units and Solar Controllers.

## 2 Very detailed Change Log

This document intends to detail the change log for relatively recent work (roughly since the source code was tracked in Git).

### 2.1 2025-01-05 Jim Klimov <jimklimov+nut@gmail.com>

- clients/upslog.c: fix max loops CLI arg processing [#2753]
- NEWS.adoc, UPGRADING.adoc: report that upslog is now also a service [#1803]
- tests/NIT/nit.sh: testcase\_sandbox\_upsc\_query\_timer(): use upslog for a second opinion [#1803]
- drivers/cps-hid.c, NEWS.adoc: try to fix frequency scaling dynamically [#2717]
- clients/Makefile.am: upslog is now an integrated service, use the full library [#1803]
- scripts/systemd/nut-logger.service.in: revise systemd integration mishaps [#1803]

### 2.2 2025-01-04 William Goodspeed <86338960+goodspeed34@users.noreply.github.com>

- drivers/liebert-gxe.c: fix bad backup time report It seems `battery.runtime` should be used for battery backup time instead `.low` one. Also the division was also faulty probably because I copied and pasted the code from previous lines but the manual says it shouldn't be there. The commit should give correct backup time readings and corrected variable name.

### 2.3 2025-01-03 Jim Klimov <jimklimov+nut@gmail.com>

- clients/upslog.c, docs/man/upslog.txt: clients/upslog.c: support limit of loop count
- clients/upslog.c: revise code markup
- tests/NIT/nit.sh: `stop_daemons()`: first stop upsmon by its own command, then kill it As of now we make `check-NIT-sandbox-c` and eventually `kill $UPSMON_PID` but this only stops the parent process, but the forked-off child keeps running.
- scripts/Windows/README.adoc: remind about prerequisite installation
- scripts/Windows/README.adoc: fix markup for pthreads installation
- scripts/Windows/README.adoc: clarify envvar persistence for the build
- Makefile.am: enable distcheck --with-systemdsystemdprestdir
- docs/Makefile.am, docs/man/Makefile.am: .prep-src-docs: play nice with different MKDIR\_P as we "cd" around [#722]

### 2.4 2025-01-02 Jim Klimov <jimklimov@gmail.com>

- docs/Makefile.am, docs/man/Makefile.am: .prep-src-docs for out-of-tree builds: only rewrite "linkman" references for doc text sources that have them [#722] Spare asciidoc.conf, docinfo.xml and similar resource files, as well as docs that do not have those tags in the first place.
  - docs/Makefile.am, docs/man/Makefile.am: .prep-src-docs for out-of-tree builds with Sun make: handle plain filenames in \$(PREP\_SRC) without a prefixed directory Looking at generated docinfo.xml and linkman-\* files respectively.
  - docs/configure.txt: clarify that --with-docs-man-\* options do not enable doc building by themselves
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## 2.5 2025-01-02 Jim Klimov <jimklimov+nut@gmail.com>

- scripts/systemd/Makefile.am: wrap long lines in EXTRA\_DIST
- configure.ac, scripts/systemd/.gitignore, scripts/systemd/Makefile.am, scripts/systemd/{ nut-driver.target ⇒ nut-driver.target.in }: scripts/systemd/nut-driver.target et al: make it a .in template [#722]
- scripts/systemd/nut-driver-enumerator-daemon-activator.path.in, scripts/systemd/nut-driver-enumerator-daemon-activator.service.in, scripts/systemd/nut-driver-enumerator-daemon.service.in, scripts/systemd/nut-driver-enumerator.path.in, scripts/systemd/nut-driver-enumerator.service.in, scripts/systemd/nut-driver.target, scripts/systemd/nut-driver@.service.in, scripts/systemd/nut-monitor.service.in, scripts/systemd/nut-server.service.in, scripts/systemd/nut-sleep.service, scripts/systemd/nut.target.in, scripts/systemd/nutshutdown.in: scripts/systemd/nut\*.in: bump © to 2025
- UPGRADING.adoc, scripts/systemd/Makefile.am, scripts/systemd/nut-systemd.preset: scripts/systemd/nut-systemd.preset, UPGRADING.adoc: introduce the file, document the units and why they are enabled or disabled by default [#2721]
- scripts/systemd/nut-sleep.service: typo fix, bump ©
- configure.ac, docs/configure.txt, NEWS.adoc, docs/nut.dict: introduce --with-systemdsystempresetdir setting
- configure.ac: refactor detection of systemd directories (yes/auto mode via pkg-config)
- clients/upslog.c: help(): clarify that "-m tuple" option(s) can override "-s ups -l file" in effect
- docs/man/upslog.txt: clarify that "-m tuple" option(s) can override "-s ups -l file" in effect
- configure.ac, scripts/Solaris/.gitignore, scripts/Solaris/Makefile.am, scripts/Solaris/nut-logger.xml.in, scripts/Solaris/svc-nut-logger.in, scripts/systemd/.gitignore, scripts/systemd/Makefile.am, scripts/systemd/nut-logger.service.in, scripts/systemd/nut.target.in: Introduce service wrapping for upslog client daemon [#1803]

## 2.6 2025-01-01 Jim Klimov <jimklimov+nut@gmail.com>

- docs/man/Makefile.am: fix typo of recent change

## 2.7 2024-12-31 Jim Klimov <jimklimov+nut@gmail.com>

- include/nutconf.hpp: fix getStr() for string literals after refactoring for case-sensitivity [#694]
- common/nutconf.cpp, include/nutconf.hpp: allow to get some entries by case-insensitive names [#2739]

## 2.8 2024-12-30 Jim Klimov <jimklimov@gmail.com>

- configure.ac, scripts/Solaris/nut-driver-enumerator.xml.in, scripts/Solaris/nut-driver.xml.in, scripts/Solaris/nut-monitor.xml.in, scripts/Solaris/nut-server.xml.in, scripts/Solaris/nut.xml.in, scripts/upsdrvsvctl/nut-driver-enumerator.sh.in: configure.ac, scripts/upsdrvsvctl/nut-driver-enumerator.sh.in, scripts/Solaris/\*.xml.in: when suggesting man pages in service metadata, refer to packaged NUT\_MANDIR [#722]
- common/common.c, scripts/Solaris/nut-driver-enumerator.xml.in, scripts/Solaris/nut-driver.xml.in, scripts/Solaris/nut-monitor.xml.in, scripts/Solaris/nut-server.xml.in, scripts/Solaris/nut.xml.in, .../nut-driver-enumerator-daemon-activator.path.in, .../nut-driver-enumerator-daemon-activator.service.in, scripts/systemd/nut-driver-enumerator-daemon.service.in, scripts/systemd/nut-driver-enumerator.path.in, scripts/systemd/nut-driver-enumerator.service.in, scripts/systemd/nut-driver@.service.in, scripts/systemd/nut-monitor.service.in, scripts/systemd/nut-server.service.in, scripts/systemd/nut.target, scripts/upsdrvsvctl/nut-driver-enumerator.sh.in: common/common.c, scripts/upsdrvsvctl/nut-driver-enumerator.sh.in, scripts/systemd/nut\*.in, scripts/Solaris/\*.xml.in: when suggesting man pages for further reading, refer to correct (configurable) section identifier [#722]
- autogen.sh: fix typo in message
- docs/Makefile.am, docs/man/Makefile.am: \*/Makefile.am: Use \*.txt-prepped files not as symlinks but as sources to provide corrected man page sections where needed

- `configure.ac`: fix fallback for `NUT_WEBSITE_BASE` [#722]
- `scripts/upsdrvsvctnl/nut-driver-enumerator.sh.in`: complete `smf_setDocLink()` for actual SMF command syntax [#722]
- `scripts/Solaris/precheck.py.in`: handle new string semantics for Python 3
- `scripts/Solaris/pkginfo.in`: refer to `NUT_WEBSITE_BASE` as vendor URL [#722]
- `UPGRADING.adoc`, `docs/nut.dict`, `scripts/Solaris/Makefile.am`: `scripts/Solaris/Makefile.am`: consider ISA info (specific 32/64-bit CPU support) of build target host in package naming
- `scripts/Solaris/precheck.py.in`: consider ISA info (specific 32/64-bit CPU support) of installation host vs. build target host
- `Makefile.am`, `UPGRADING.adoc`, `scripts/Solaris/Makefile.am`: `*/Makefile.am`: name HPUNIX and Solaris package files with a dash before the SEMVER part
- `scripts/Solaris/nut-driver-enumerator.xml.in`: fix `envvar` passing to NDE script launch
- `scripts/Solaris/nut-driver-enumerator.xml.in`: missed one set of documentation links [#722]
- `INSTALL.nut.adoc`, `Jenkinsfile-dynamatrix`, `NEWS.adoc`, `README.adoc`, `UPGRADING.adoc`, `ci_build.sh`, `clients/nutclient.cpp`, `docs/asciidoc-vars.conf`, `docs/config-prereqs.txt`, `drivers/apc-mib.c`, `drivers/bcmxcp_usb.c`, `drivers/blazer_ser.c`, `drivers/blazer_usb.c`, `drivers/delta_ups-hid.c`, `drivers/dstate.c`, `drivers/hidparser.c`, `drivers/nutdrv_qx_voltronic.c`, `scripts/installer/common/shutdown`, `tests/getvaluetest.c`, `tests/nutlogtest.c`, `tools/nut-dumpdiff.sh`, `tools/nut-scanner/nutscan-ip.c`: Standardize wording of "vs." over "vs" (comments, messages, docs) to be consistent

## 2.9 2024-12-30 Jim Klimov <jimklimov+nut@gmail.com>

- `NEWS.adoc`, `UPGRADING.adoc`, `configure.ac`, `docs/configure.txt`, `docs/man/.gitignore`, `docs/man/Makefile.am`, `docs/nut.dict`: `configure.ac`, `docs/man/Makefile.am`, et al: allow configuring man page section names Certain distributions have to patch built NUT artifacts for their packaging with their man page sectioning standards. Make life easier, be friendlier out of the box :)
- `include/nutconf.hpp`: add support for `STATEPATH` in `ups.conf` [#694]
- `scripts/augeas/nutupsconf.aug.tpl`: add support for `STATEPATH` in `ups.conf` [#694]
- `configure.ac`, `scripts/systemd/.gitignore`, `scripts/systemd/Makefile.am`, `scripts/systemd/{nut.target ⇒ nut.target.in}`: `scripts/systemd/nut.target` et al: make it a `.in` template [#722]

## 2.10 2024-12-29 Jim Klimov <jimklimov+nut@gmail.com>

- `scripts/augeas/nutupsconf.aug.tpl`: USB drivers should now accept a `LIBUSB_DEBUG=INTEGER` setting in `ups.conf` [#2616]
- `NEWS.adoc`, `UPGRADING.adoc`, `conf/ups.conf.sample`, `conf/upsd.conf.sample`, `docs/man/ups.conf.txt`, `docs/man/upsd.conf.txt`, `server/conf.c`: `server/conf.c` and docs: allow setting `STATEPATH` via `ups.conf` [#694]
- `NEWS.adoc`, `conf/ups.conf.sample`, `docs/man/ups.conf.txt`, `drivers/main.c`: `drivers/main.c` and docs: allow setting `STATEPATH` via `ups.conf` [#694]
- `docs/man/upsd.conf.txt`, `conf/upsd.conf.sample`: clarify `STATEPATH` entanglement of `upsd` and `drivers`, and `envvar` override [#694]

## 2.11 2024-12-25 Jim Klimov <jimklimov+nut@gmail.com>

- `scripts/Windows/wininit.c`: refer to local man (ifdef `WITH_DOCS`) and website page for `nut.exe` wrapper [#722]
  - `scripts/upsdrvsvctnl/nut-driver-enumerator.sh.in`: `smf_setDocLink()`: complete the proposed SMF implementation [#722]
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## 2.12 2024-12-24 Jim Klimov <jimklimov+nut@gmail.com>

- common/common.c: suggest\_doc\_links(): do not preallocate buf2, ensure use of only basename of a program [#722]
- drivers/upsdrvctl.c: refer to local man (ifdef WITH\_DOCS) and website page for this tool [#722]
- scripts/upsdrvsvctctl/upsdrvsvctctl.in: refer to local man and website pages for this tool [#722]
- scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: refer to local man and website pages for this tool [#722]
- clients/upsc.c, clients/upscmd.c, clients/upsrw.c, clients/upslog.c, clients/upsmon.c, clients/upssched.c: refer to local man (ifdef WITH\_DOCS) and website page for these tools [#722]
- tools/nutconf/nutconf-cli.cpp: refer to local man (ifdef WITH\_DOCS) and website page for the nutconf tool [#722]
- tools/nut-scanner/nut-scanner.c, tools/nut-scanner/Makefile.am: refer to local man (ifdef WITH\_DOCS) and website page for this tool [#722]

## 2.13 2024-12-23 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/main.c: main(): avoid notification at exit after just showing help
- drivers/main.c: move WIN32 var declarations up in main()
- server/upsd.c: refer to local man (ifdef WITH\_DOCS) and website page for the data server [#722]
- server/sockdebug.c, server/pipedebbug.c: refer to local man (ifdef WITH\_DOCS) and website page for these tools [#722]  
Reminder: both sources are built as sockdebug for different platforms and share the man page.
- NEWS.adoc, common/common.c, drivers/main.c, include/common.h: common/common.c, include/common.h, drivers/main.c: introduce suggest\_doc\_links() [#722]

## 2.14 2024-12-22 hajar97 <ehajiyev@gmail.com>

- data/driver.list.in: Update driver.list.in Added report for Greencell PowerProof 2000

## 2.15 2024-12-22 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/blazer\_ser.c, drivers/blazer\_usb.c, drivers/main.c, drivers/nutdrv\_qx.c, drivers/usbhid-ups.c: drivers/main.c: refer to local man (ifdef WITH\_DOCS) and website page for the driver [#722]
- scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: introduce \*\_setDocLink() to refer to specific driver man pages, provide systemd implementation [#722]

## 2.16 2024-12-21 Jim Klimov <jimklimov+nut@gmail.com>

- NEWS.adoc, configure.ac, .../nut-driver-enumerator-daemon-activator.path.in, ...t-driver-enumerator-daemon-activator.service.in, .../nut-driver-enumerator-daemon.service.in, scripts/systemd/nut-driver-enumerator.path.in, scripts/systemd/nut-driver-enumerator.service.in, scripts/systemd/nut-driver.target, scripts/systemd/nut-driver@.service.in, scripts/systemd/nut-monitor.service.in, scripts/systemd/nut-server.service.in, scripts/systemd/nut.target: scripts/systemd/nut\* units: add documentation links [#722]
  - scripts/Solaris/nut-driver-enumerator.xml.in, scripts/Solaris/nut-driver.xml.in, scripts/Solaris/nut-monitor.xml.in, scripts/Solaris/nut-server.xml.in: scripts/Solaris/\*.xml.in: revise heading comments and documentation links [#722]
  - configure.ac: derive NUT\_WEBSITE\_BASE from PACKAGE\_URL [#722]
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## 2.17 2024-12-19 RikyPlaza <158032745+RikyPlaza@users.noreply.github.com>

- scripts/Windows/README.adoc: corrected instructions of pthread installation

## 2.18 2024-12-19 Jim Klimov <jimklimov+nut@gmail.com>

- m4/nut\_check\_libmodbus.m4: do not detect other libmodbus features if header was not found [#2289] ... in requested location, e.g. wrong path provided by the `--with-modbus-includes=-I.../include` parameter without the `/modbus` sub-directory.
- m4/nut\_check\_libavahi.m4, m4/nut\_check\_libfreeipmi.m4, m4/nut\_check\_libgd.m4, m4/nut\_check\_libgpod.m4, m4/nut\_check\_libm4/nut\_check\_libneon.m4, m4/nut\_check\_libnetsnmp.m4, m4/nut\_check\_libnss.m4, m4/nut\_check\_libopenssl.m4, m4/nut\_check\_libm4/nut\_check\_libregex.m4, m4/nut\_check\_libsystemd.m4, m4/nut\_check\_libusb.m4: m4/nut\_check\_lib\*.m4: use `AC_REQUIRE([N` etc, not plain macro calls

## 2.19 2024-12-18 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/cps-hid.c: `cps_fix_report_desc()`: complete the original fix-up for `input_logmin/input_logmax` vs. high voltage transfer [#1245, #2718]
- docs/nut.dict, scripts/Windows/README.adoc: scripts/Windows/README.adoc: pthreads: comment on issues with "time-spec" [#2724]
- scripts/Windows/README.adoc: pthreads: built directly by `make`, should not use `$BUILD_FLAG`
- scripts/Windows/README.adoc: add a note about not-running builds as root
- scripts/Windows/README.adoc: update markup at start of doc

## 2.20 2024-12-17 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/mge-hid.c: check that KSTAR is the maker of KSTAR\_VENDORID hits [#2661]
- drivers/cps-hid.c: `cps_fix_report_desc()`: take the higher ground [#2718]
- drivers/cps-hid.c: `cps_fix_report_desc()`: simplify `sizeMax` now that original error was caught [#2718]
- drivers/hidparser.c, drivers/cps-hid.c: add comments about presumed LogMin/LogMax error origins [#1024, #1512, #2718]

## 2.21 2024-12-16 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/mge-hid.c, data/driver.list.in, docs/nut.dict, NEWS.adoc, scripts/upower/95-upower-hid.hwdb: added support for 0x09d6:0x00 (KSTAR) UPSes using MGE HID [#2661]
  - drivers/cps-hid.c: `cps_fix_report_desc()`: fix powers of 2 maths [#2718]
  - drivers/cps-hid.c: `cps_fix_report_desc()`: update debug-logging [#2718]
  - docs/man/usbhid-ups.txt: warn that (some?) CPS models can not use `ondelay` [#625] ... according to support, per <https://github.com/networkupstools/nut/issues/625#issuecomment-1790213635>
  - NEWS.adoc, UPGRADING.adoc, docs/man/usbhid-ups.txt, drivers/cps-hid.c, drivers/usbhid-ups.c, drivers/usbhid-ups.h: drivers/usbhid-ups.{c,h}, docs/man/usbhid-ups.txt, NEWS.adoc, UPGRADING.adoc: introduce `DEFAULT_ONDELAY_CPS` and `DEFAULT_OFFDELAY_CPS` on CPS devices [#1394, #432]
  - NEWS.adoc, UPGRADING.adoc, docs/man/usbhid-ups.txt, drivers/usbhid-ups.c, drivers/usbhid-ups.h: drivers/usbhid-ups.{c,h}, docs/man/usbhid-ups.txt, NEWS.adoc, UPGRADING.adoc: introduce `DEFAULT_POLLFREQ_CPS` and suggest pollonly on CPS devices [#1689]
  - drivers/usbhid-ups.c: `upsdrrv_initups()`: update comments about logical progression through init
  - UPGRADING.adoc: typo fix
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## 2.22 2024-12-13 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/cps-hid.c, NEWS.adoc: cps\_fix\_report\_desc(): address mismatched LogMax for input/output voltages [#1512] Note: not bumping version, as it was done in another commit of same PR #2718
- drivers/cps-hid.c, NEWS.adoc: cps\_fix\_report\_desc(): do actually "set Input Voltage" for a fix [#1245]
- drivers/hidparser.c, drivers/hidtypes.h, NEWS.adoc: track the fact of assumed\_LogMax [#1512]
- drivers/cps-hid.c: cps\_fix\_report\_desc(): debug-log if we skipped work, to be clear in troubleshooting
- drivers/cps-hid.c: cps\_fix\_report\_desc(): comment HEX variants of ReportIDs
- NEWS.adoc, drivers/cps-hid.c: drivers/cps-hid.c: cps\_fix\_report\_desc(): line-wrap big comments and debug prints
- NEWS.adoc: regroup "USB-capable drivers generally" entries

## 2.23 2024-12-12 RikyPlaza <158032745+RikyPlaza@users.noreply.github.com>

- drivers/phoenixcontact\_modbus.c: Updated author
- drivers/phoenixcontact\_modbus.c: corrected placeholder of fatalx log
- drivers/phoenixcontact\_modbus.c: corrected placeholder of fatalx log
- drivers/phoenixcontact\_modbus.c: corrected placeholder of fatalx log
- drivers/phoenixcontact\_modbus.c: corrected placeholder of fatalx log

## 2.24 2024-12-12 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/usbhid-ups.c, NEWS.adoc: apply disable\_fix\_report\_desc, interruptsize and interruptonly before comm\_driver→open\_dev() [#1512, #1575]
  - docs/nut-names.txt: update markup and a bit of wording
  - NEWS.adoc: highlight recent fixes to .circleci/config.yml
  - .circleci/config.yml: fetch git tags to help SEMVER look right (optionally) [#1949]
  - data/driver.list.in: add Ippon Innova RT 3/1 models [#2712]
  - NEWS.adoc: update for phoenixcontact\_modbus PR list [#2716]
  - drivers/phoenixcontact\_modbus.c: fix "Uknown" typo [#2716]
  - drivers/phoenixcontact\_modbus.c: fix conversion/printing of certain data types [#2716]
  - drivers/phoenixcontact\_modbus.c: fix trailing whitespace and indentations [#2716]
  - drivers/phoenixcontact\_modbus.c: constrain DRIVER\_VERSION format, add recent author [#2716]
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**2.25 2024-12-11 RikyPlaza <158032745+RikyPlaza@users.noreply.github.com>**

- drivers/phoenixcontact\_modbus.c: Removed break after fatalx func.
- drivers/phoenixcontact\_modbus.c: corrected placeholder of fatalx log
- drivers/phoenixcontact\_modbus.c: Corrected fatalx logs.
- drivers/phoenixcontact\_modbus.c: inserted comment for new method and updated version.
- drivers/phoenixcontact\_modbus.c: Corrected alarms1 register reading for QUINT4 UPS.
- drivers/phoenixcontact\_modbus.c: Added management for different QUINT and QUINT4 UPS models.
- drivers/phoenixcontact\_modbus.c: Corrected register concatenation.
- drivers/phoenixcontact\_modbus.c: Added part number variable in exit message when it's not recognized.
- drivers/phoenixcontact\_modbus.c: First implementation of the new logic to establish UPS model.

**2.26 2024-12-10 Viktor Drobot <linux776@gmail.com>**

- drivers/nutdrv\_qx\_innovart31.c: We can use full Blazer claiming and initialization routines now
- drivers/nutdrv\_qx\_innovart31.c: Giving up on reading firmware and serial number data from UPS
- drivers/nutdrv\_qx\_innovart31.c: Firmware reading leads to the driver stale state
- drivers/nutdrv\_qx\_innovart31.c: Checked remaining classic Qx commands (beeper toggle removed as not recognized by hardware). Added firmware version and serial number of UPS. Reorganized readings to minimize data between host and UPS according to the developer docs. Added known input, output and bypass readings as comments for future development (3/3 versions).

**2.27 2024-12-10 Jim Klimov <jimklimov+nut@gmail.com>**

- .circleci/config.yml: uncomment HOMEBREW\_NO\_AUTO\_UPDATE=1 to cut down pre-build CI overhead for faster turnaround (1hr timeout) [#1579] Currently Homebrew auto-update done before we install anything takes 45-50 minutes, so we often don't have time to complete even configuration for our actual CI tests (subject to CircleCI server farm congestion, I guess). This also bites a big chunk from the monthly opensource credits available for the builds. Note the baseline image currently uses a slightly older Python as well. But the speedup frmo 45\+ to 3.5min is commendable!

**2.28 2024-12-09 Viktor Drobot <linux776@gmail.com>**

- drivers/nutdrv\_qx\_innovart31.c: Use battery runtime and charge data from UPS

**2.29 2024-12-09 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/nut.dict: add MGE "designator" [#2713]
  - drivers/nhs\_ser.c: pass buffer sizes as size\_t not int [#2692]
  - drivers/nhs\_ser.c: interpret\_pkt\_data(): cache ah, pf, va, numbat, vbat and min\_input\_power in static vars [#2692]
  - docs/nut-names.txt: stress that DOMAIN.CONTEXT.SPEC suffixes are not complete names
  - drivers/nhs\_ser.c: upsdrrv\_updateinfo(): refactor away interpret\_pkt\_hwinf() and interpret\_pkt\_data() logic, separated by domain [#2692] Also rename some data points that do not conform to NUT standards, or drop if redundant.
  - drivers/nhs\_ser.c: upsdrrv\_updateinfo(): revise byte-reading loop vs. packet data interpretation; un-indent more code [#2692] Add range-check to not overflow the datapacket[] buffer.
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**2.30 2024-12-09 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- data/cmdvartab: remove typo
- data/cmdvartab: typo for rerun CI

**2.31 2024-12-08 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/nhs\_ser.c: size porta[] as PATH\_MAX [#2692]
- drivers/nhs\_ser.c: use strncpy() to init porta[] [#2692]
- drivers/nhs\_ser.c: upsdrv\_updateinfo(): refactor with reconnect\_ups\_if\_needed() [#2692]
- drivers/nhs\_ser.c: upsdrv\_updateinfo(): revise reconnections with data-stale related messages and status changes [#2692]
- drivers/nhs\_ser.c: upsdrv\_updateinfo(): simplify reconnect-check, un-indent main code a bit [#2692] Fixed the retries from being an infinite loop along the way...
- drivers/nhs\_ser.c: reshuffle HW init code between upsdrv\_initups() and upsdrv\_initinfo() [#2692]
- docs/new-drivers.txt: clarify relation of dstate\_addcmd() and upsh.instcmd and upsdrv\_initinfo()
- drivers/nutdrv\_qx.c: bump DRIVER\_VERSION due to addition of innovart31 subdriver [#2712]
- docs/nutdrv\_qx-subdrivers.txt, drivers/nutdrv\_qx.c, docs/nut.dict: clarify that "subdriver" is for Serial-over-USB dialect, and "protocol" is for Qx dialect [#2712]
- NEWS.adoc: introduced `innovart31` in `nutdrv_qx` [#2712]

**2.32 2024-12-08 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- data/cmdvartab, docs/nut-names.txt: some more vars added
- docs/nut-names.txt: add device.usb.version to nut-names.txt
- data/cmdvartab: add device.x descriptions \+ more to cmdvartab
- data/cmdvartab, docs/nut-names.txt: battery.charger.type description changed
- data/cmdvartab, docs/nut-names.txt: spme missing vars added

**2.33 2024-12-06 Viktor Drobot <linux776@gmail.com>**

- docs/nut.dict: Fix aspell complaining about InnovaRT
- docs/man/nutdrv\_qx.txt, docs/nutdrv\_qx-subdrivers.txt, drivers/Makefile.am, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx\_blazer-common.c, drivers/nutdrv\_qx\_blazer-common.h, drivers/nutdrv\_qx\_innovart31.c, drivers/nutdrv\_qx\_innovart31.h: First attempt to add support for Innova RT 3/1

**2.34 2024-12-06 Jim Klimov <jimklimov+nut@gmail.com>**

- clients/upsmon.c: upsmon\_cleanup(): free(configfile) in the end
  - clients/upsmon.c: ups\_free(): release ups→status\_tokens if needed [#415, #2709]
  - tests/NIT/nit.sh: refer to scripts/valgrind for debugging in a sandbox
  - tests/NIT/nit.sh: generatecfg\_upsmon\_trivial() allow to toggle NOTIFYFLAG targets
-

- common/common.c: Revert "common/common.c: only close\_sdbus\_once() if we are the same PID that originally opened it [#1070]" This reverts commit a6496a6af1c1b90ca4b836bd0f0cf9c07d6ade3b: close from a child process does not seem to impact parent, but a non-close is a memory leak when such child exits.
- clients/upsmon.c: addups(): start with definitive states of all fields Kudos to make check-NI-sandbox-devel and LD\_LIBRARY\_PATH=pwd/clients/.libs valgrind --leak-check=full --show-leak-kinds=all --track-origins=yes ./clients/.libs/upsmon -F
- clients/upsmon.c: redefine\_ups(): comment a concern about "pv" changes

### 2.35 2024-12-05 RikyPlaza <158032745+RikyPlaza@users.noreply.github.com>

- drivers/phoenixcontact\_modbus.c: Updated driver version with beta one
- drivers/phoenixcontact\_modbus.c: Added NONE value for models enumeration and managed in switch statemets

### 2.36 2024-12-05 Jim Klimov <jimklimov+nut@gmail.com>

- clients/upsmon.c: parse\_status(): fix releasing of ups→status\_tokens [#415, #2709]
- clients/upsmon.c: notify(): clarify (when debug-logging) upsmon-centric messages if upsname==NULL [#415, #2709]
- clients/upsmon.c: change time maths in delay between main loop cycles from time\_t to more precise timeval [#1070]
- clients/upsmon.c: report start/end/duration of the "sleepval" delay between main loop cycles [#1070]
- clients/upsmon.c: break the main sub-loop where we check sleep\_inhibitor\_status also if exit\_flag gets raised (e.g. Ctrl+C during the wait) [#1070]
- common/common.c: only close\_sdbus\_once() if we are the same PID that originally opened it [#1070]
- common/common.c: debug-log isPreparingForSleep() outcomes (when extremely high verbosity level is on) [#1070]
- common/common.c: refactor upsnotify\_suggest\_NUT\_QUIET\_INIT\_UPSNOTIFY\_once() [#1590, #2136]
- tests/NIT/nit.sh: generatecfg\_upsmon\_trivial(): refer to NOTIFYCMD=... notifyme-debug where possible [#2709]
- tests/NIT/nit.sh: testcase\_sandbox\_upsc\_query\_timer(): add a retry with longer delay [#2709]
- tests/NIT/Makefile.am: allow to pass custom NUT\_PORT and NIT\_CASE [#2709] ... default the latter to testgroup\_sandbox\_u now (includes the earlier testcase\_sandbox\_start\_drivers\_after\_upsd)
- scripts/misc/notifyme-debug: honour TMPDIR or TMPDIR set by caller; fall back to /dev/shm or /tmp otherwise [#2709]
- conf/upsmon.conf.sample.in: suggest NOTIFYFLAG for OTHER/NOTOTHER too [#415]

### 2.37 2024-12-04 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/cps-hid.c, NEWS.adoc: add ups.temperature [#2711] Kudos to Cyber Energy (affiliate of CPS) per <https://alioth-lists.debian.net/pipermail/nut-upsdev/2024-December/008069.html>

### 2.38 2024-12-03 Jim Klimov <jimklimov+nut@gmail.com>

- clients/upsmon.h, conf/upsmon.conf.sample.in, docs/man/upsmon.conf.txt: clients/upsmon.h, docs: default "ALARM" message format to two "%s" placeholders [#415]
- clients/upsmon.c: ups\_is\_alarm(): track if ups.alarm value changed, re-notify [#415]
- clients/upsmon.c: allow to get\_var(ups, "alarm"... ) and use it in ups\_is\_alarm() notification [#415]
- docs/new-drivers.txt: in "Status data", stress the life-cycle of ups.status flag tokens [#2708]
- NEWS.adoc, clients/upsmon.c, clients/upsmon.h, common/nutconf.cpp, common/nutwriter.cpp, conf/upsmon.conf.sample.in, docs/man/nutconf.txt, docs/man/upsmon.conf.txt, docs/man/upsmon.txt, docs/nut.dict, include/nutconf.hpp, scripts/augeas/nut-upsmonconf.aug.in, tools/nutconf/nutconf-cli.cpp: upsmon code, docs, conf: introduce "OTHER"/"NOTOTHER" notifications for unknown tokens in ups.status [#415]
- NEWS.adoc, clients/upsmon.c, clients/upsmon.h: clients/upsmon.{c,h}, NEWS.adoc: revise do\_notify() to allow passing an extra arg into formatting strings with two "%s" placeholders [#415]
- clients/upsmon.c, NEWS.adoc: optimize parse\_status() by not checking further strings if we had a match; report unexpected tokens [#415, #2708]
- drivers/usbhid-ups.c, drivers/netxml-ups.c, NEWS.adoc, UPGRADING.adoc: handle STATUS\_BIT(NO BATTERY) to also status\_set("RB") [#415]
- clients/upsmon.c, clients/upsmon.h, conf/upsmon.conf.sample.in, docs/man/upsmon.conf.txt, docs/man/upsmon.txt: clients/upsmon.{c,h}, docs, conf: apply suggestions from [issue #415](#) discussion adding to [PR #2658](#) changes Previously merged-in the couple of commits from [issue https://github.com/networkupstools/nut/issues/415](https://github.com/networkupstools/nut/issues/415) proposal at [https://github.com/networkupstools/nut/tree/upsmon\\_alarm](https://github.com/networkupstools/nut/tree/upsmon_alarm) for posterity, now cherry-picking some changes and further discussion ideas from mailing list thread at <http://lists.alieth.debian.org/pipermail/nut-upsuser/2017-April/010591.html> Closes: [#415](#)

### 2.39 2024-12-02 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/mge-hid.c: simplify debug printouts with NUT\_STRARG() [#2684, #1737]
- NEWS.adoc, docs/nut.dict, drivers/upsdrvquery.c: drivers/upsdrvquery.c, NEWS.adoc: upsdrvquery\_read\_timeout(): fix private use of timeval={-1,-1} as select(..., NULL) for indefinite wait [#1922, #2392, #2686, #2670]
- clients/upscmd.c, clients/upsrw.c: clients/ups{rw,cmd}.c: enable use of NUT\_DEBUG\_LEVEL envvar
- clients/upscmd.c, clients/upsrw.c: clients/ups{rw,cmd}.c: when reporting "OK" without "TRACKING", issue a debug message about its limited usefulness
- data/cmdvartab: document CMDDESC shutdown.default [#2686]
- drivers/dstate.c: revise logging of "Got INSTCMD, but driver lacks a handler" [#2686]

### 2.40 2024-12-02 Greg Troxel <gdt@lexort.com>

- tests/nutipc\_ut.cpp: tests: Do not expect signals to be messages POSIX does not require 1:1 delivery per kill() call. Adjust the test to not require behavior that 1) POSIX does not require and 2) is only probabalistically observed to happen, even if "most of the time".
- include/nutipc.hpp: core ipc: Handle select returning EINTR

### 2.41 2024-12-02 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>

- drivers/mge-hid.c: typo space removed
-

**2.42 2024-12-01 desertwitch <24509509+desertwitch@users.noreply.github.com>**

- drivers/mge-hid.c: comment regarding ChargerType

**2.43 2024-12-01 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/mge-hid.c: restore white-space (TAB indentation and between decl type and varname)
- drivers/mge-hid.c: restore white-space (TAB indentation and between decl type and varname) [#2684]
- docs/snmp-subdrivers.txt: update with snmp\_info\_default() macro example [#2285]
- docs/new-drivers.txt: quote driver names; note modbus unrelated drivers so far [#50, #1765]
- NEWS.adoc: moved phoenixcontact\_modbus update to other drivers [#2689]
- drivers/phoenixcontact\_modbus.c: fix use of pragmas for default switch cases [#2689]
- drivers/phoenixcontact\_modbus.c: no break after fatalx() [#2689]

**2.44 2024-12-01 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-hid.c: add debug message for bypass/eco outside limits
- drivers/mge-hid.c: Fix for bypass/eco when no values or outside of limits

**2.45 2024-11-30 Jim Klimov <jimklimov@gmail.com>**

- drivers/nhs\_ser.c: populate missed explicit method parameter [#2692]

**2.46 2024-11-30 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-hid.c: add debug log when enter to eco/bypass modes
- drivers/mge-hid.c: fix eco vars in debug meassage
- drivers/mge-hid.c: Fix for bypass limit In case we dont have Bypass transfer limit variables but still have ability to enter Bypass mode

**2.47 2024-11-29 RikyPlaza <158032745+RikyPlaza@users.noreply.github.com>**

- drivers/phoenixcontact\_modbus.c: Handled default case with error
- drivers/phoenixcontact\_modbus.c: Re-implemented default cases.
- drivers/phoenixcontact\_modbus.c: Extended comment to "default" label example

**2.48 2024-11-29 Jim Klimov <jimklimov@gmail.com>**

- NEWS.adoc, configure.ac, docs/man/Makefile.am, docs/man/nhs\_ser.txt, docs/nut.dict, drivers/Makefile.am: configure.ac, drivers/Makefile.am, docs/man/Makefile.am, docs/man/nhs\_ser.txt, NEWS.adoc: temporarily constrain nhs\_ser to Linux-only NUT builds [#2692]

## 2.49 2024-11-29 Jim Klimov <jimklimov+nut@gmail.com>

- data/driver.list.in: add usbhid-ups supported Ippon models [#2702]
- drivers/nhs\_ser.c: hide upsdvr\_updateinfo() debug log of processing at verbosity 3-4\_ [#2692]
- drivers/nhs\_ser.c: keep debug log of main milestones and errors at verbosity 1, add *func* [#2692]
- drivers/nhs\_ser.c: quieter logging in print\_pkt\_hwinfo() and print\_pkt\_data() [#2692]
- drivers/nhs\_ser.c: log method starting/ending quieter and with use of *func* [#2692]
- drivers/nhs\_ser.c: upsdvr\_updateinfo(): rename "nhs." datapoints into "experimental.nhs." namespace [#2692]
- drivers/nhs\_ser.c: upsdvr\_updateinfo(): FIXME commented - same criteria used for 3 alarms [#2692]
- drivers/nhs\_ser.c: memory robustness: strcpy⇒strncpy [#2692]
- drivers/nhs\_ser.c: memory robustness: sprintf⇒snprintf [#2692]
- drivers/nhs\_ser.c: fix code markup into NUT style [#2692] \* indent with TAB characters, \* separate declaration type and varname with TAB(s), \* use space after comma
- drivers/nhs\_ser.c: fix "for (int i...)" to use of pre-declared variables [#2692]
- drivers/nhs\_ser.c: fix DEFAULTTPERC ⇒ DEFAULTPERC typo in the macro name [#2692]
- drivers/nhs\_ser.c: fix comment markup, wrap long lines, inject TABs in structs [#2692] Also drop comments from standalone program legacy now that this driver is an integrated part of NUT codebase.
- drivers/nhs\_ser.c: drivers/nhs-nut.c: fix compiler complaints - sprintf() from and to same variable [#2692] nhs\_ser.c: In function 'upsdvr\_updateinfo': nhs\_ser.c:1858:37: error: 'sprintf' argument 3 overlaps destination object 'alarm' [-Werror=restrict] 1858 \ sprintf(alarm,"%s %s",alarm,"IUPS IN BATTERY MODE!"); \ ^~~~~~\
- drivers/nhs\_ser.c: upsdvr\_updateinfo(): refactor debug of bad mains [#2692]

## 2.50 2024-11-29 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>

- drivers/mge-hid.c: change voltage limit setting same as frequency in eco function also
- drivers/mge-hid.c: change voltage limit setting same as frequency
- drivers/mge-hid.c: move NUT\_UNUSED\_VARIABLE(value); back down
- drivers/mge-hid.c: change the state for debug when no eco transfer limits available to use defaults
- drivers/mge-hid.c: change vars in eaton\_input\_eco\_mode\_check\_range()
- drivers/mge-hid.c: change vars in eaton\_input\_bypass\_check\_range()
- data/cmdvartab, docs/nut-names.txt: much clear description for input.transfer.bypass.forced

## 2.51 2024-11-28 fenugrec <fenugrec@users.sourceforge.net>

- drivers/libusb1.c: fix wrong return value of nut\_libusb\_get\_interrupt() cf github #2401. When global var *interrupt\_size* is not set, a transfer size of SMALLBUF (512) is requested when calling libusb\_interrupt\_transfer(). Our function nut\_libusb\_get\_interrupt() should return the actual transferred size. Otherwise, the caller will attempt to parse any uninitialized data in the buffer after the response. In libusb0.c this was done correctly by using the return value of usb\_interrupt\_read(). With libusb1, the transferred size is written to tmpbufsize, and should therefore be used as the return val.



**2.52 2024-11-28 RikyPlaza <158032745+RikyPlaza@users.noreply.github.com>**

- drivers/phoenixcontact\_modbus.c: Added pragma statements as per tip to avoid compiler complains on "default" label in switch statements.

**2.53 2024-11-28 Lucas Bocchi <lucas.bocchii@gmail.com>**

- drivers/nhs\_ser.c: Another miscalculation in battery time duration.
- drivers/nhs\_ser.c: Change on line 1936 - Battery voltage hardcoded in 12.0 v

**2.54 2024-11-28 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/developers.txt, docs/nut.dict: docs/developers.txt: clarify pragmas in switch/case/default vs. enum [#2689, #823]
- NEWS.adoc, drivers/dstate.c: drivers/dstate.c: fflush(stdout) after dstate\_dump() [#2695]
- drivers/libusb1.c: nut\_libusb\_open(): fix if-clause typo to report that no devices were accessible (and none others matched) [#2699]
- NEWS.adoc, drivers/libusb0.c, drivers/libusb1.c: drivers/libusb{0,1}.c, NEWS.adoc: report if some devices WERE accessible but did not match [#2699]

**2.55 2024-11-28 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-hid.c: 9PX added to comments
- drivers/mge-hid.c: add 9PX models also
- drivers/mge-hid.c: change to small chars
- drivers/mge-hid.c: added Eaton 9SX

**2.56 2024-11-27 Lucas Bocchi <lucas.bocchii@gmail.com>**

- drivers/nhs\_ser.c: Error on line 1717, on function to reopen serial in case of problem. We have default values but I set with variable porta and baudrate the correct port and speed.

**2.57 2024-11-27 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/nhs\_ser.c: drivers/nhs-nut.c: fix compiler complaints - float overflow [#2692] CodeQL alert: \* Multiplication result converted to larger type High \* Multiplication result may overflow *float* before it is converted to *double*.
  - drivers/nhs\_ser.c: drivers/nhs-nut.c: fix compiler complaints - unused methods [#2692] Hide them away: nhs\_ser.c:939:15: error: unused function *strtalow* [-Werror,-Wunused-function] static char
  - strtalow(char\* s) { ^ nhs\_ser.c:902:12: error: unused function *write\_serial* [-Werror,-Wunused-function] static int write\_serial(int fd, const char \* dados, int size) { ^ 2 errors generated.
  - docs/man/nhs\_ser.txt, drivers/nhs\_ser.c: introduce option flags for debug\_pkt\_raw, debug\_pkt\_data, debug\_pkt\_hwinfom [#2692] Also helps avoid dead code and this warning: nhs\_ser.c:467:13: error: unused function *print\_pkt\_data* [-Werror,-Wunused-function] static void print\_pkt\_data(pkt\_data data) { ^
  - drivers/nhs\_ser.c: drivers/nhs-nut.c: fix compiler complaints - shadowed variables (serial\_fd) [#2692]
  - drivers/nhs\_ser.c: drivers/nhs-nut.c: update © heading [#2692]
-



- drivers/nhs\_ser.c: drivers/nhs-nut.c: fix compiler complaints - comparing floating-points [#2692] nhs\_ser.c:1873:74: error: comparing floating point with == or != is unsafe [-Werror,-Wfloat-equal] perc = get\_vin\_perc("vin\_low\_warn\_perc") == get\_vin\_perc("vin\_low\_crit\_perc") ? 2 : 1; ~~~~~~\~~~~~\
- drivers/nhs\_ser.c: drivers/nhs-nut.c: fix compiler complaints - casting round() to int/long [#2692] This is an odd one, see <https://stackoverflow.com/a/43481925/4715872> nhs\_ser.c:1865:74: error: cast from function call of type *double* to non-matching type *int* [-Werror,-Wbad-function-cast] dstate\_setinfo("ups.realpower", "%d", (int)round(vpower)); ^~~~\~ The `rint()` family of methods should be part of C99 and above, returning a long approximation of a double or float argument. Had to adjust dstate\_setinfo() parameters from (unsigned) int to long.
- drivers/nhs\_ser.c: drivers/nhs-nut.c: fix compiler complaints - variable length array [#2692] nhs\_ser.c:897:21: error: variable length array used [-Werror,-Wvla] uint8\_t message[size]; ^\
- drivers/nhs\_ser.c: drivers/nhs-nut.c: fix compiler complaints - mixing declarations and code [#2692] nhs\_ser.c:904:17: error: mixing declarations and code is incompatible with standards before C99 [-Werror,-Wdeclaration-after-statement] ssize\_t bytes\_written = write(serial\_fd, message, size); ^\
- drivers/nhs\_ser.c: drivers/nhs-nut.c: fix compiler complaints - shadowed variables [#2692] nhs\_ser.c:519:32: error: declaration shadows a variable in the global scope [-Werror,-Wshadow] static int openfd(const char \* porta, int BAUDRATE) { ^ nhs\_ser.c:247:13: note: previous declaration is here static char porta[1024] = DEFAULTPORT; ^ nhs\_ser.c:1943:42: error: declaration shadows a local variable [-Werror,-Wshadow] for (int i = 0; i < 5; i++) { ^ nhs\_ser.c:1657:18: note: previous declaration is here unsigned int i = 0; ^\
- drivers/nhs\_ser.c: drivers/nhs-nut.c: fix compiler complaints - static vars/methods and strict parameters [#2692] \* Static internal methods and pre-declarations on top of file: nhs\_ser.c:1549:14: error: no previous prototype for function *get\_va* [-Werror,-Wmissing-prototypes] unsigned int get\_va(int equipment) { ^ nhs\_ser.c:1549:1: note: declare *static* if the function is not intended to be used outside of this translation unit unsigned int get\_va(int equipment) { ^ static \* Explicit void args: nhs\_ser.c:1571:20: error: this old-style function definition is not preceded by a prototype [-Werror,-Wstrict-prototypes] unsigned int get\_ah() { ^\
- drivers/Makefile.am: Rename "nhs-nut" to "nhs\_ser" follow-up [#2692]
- drivers/nhs\_ser.c: update comment about use of "clang --analyze" [#2692]
- data/driver.list.in: update with devices supported by nhs\_ser driver [#2692] List extracted from current driver code with `grep strcpy(data.upsdesc drivers/nhs_ser.c | sed s\^strcpy(data.upsdesc, "\(.)\". *$/"NHS Sistemas Eletronicos LTDA "\t"ups"\t"2"\t"\t"\t"port"\t"nhs_ser"/\ >> data/driver.list.in`
- NEWS.adoc, docs/man/nhs\_ser.txt, docs/nut.dict: NEWS.adoc, docs/man/nhs\_ser.txt: rephrase naming of devices covered by nhs\_ser driver [#2692]
- NEWS.adoc, docs/man/Makefile.am, docs/man/{nhs-nut.txt ⇒ nhs\_ser.txt}, drivers/Makefile.am, drivers/{nhs-nut.c ⇒ nhs\_ser.c}: Rename "nhs-nut" to "nhs\_ser" [#2692]
- docs/man/Makefile.am, docs/man/nhs-nut.txt, docs/nut.dict: docs/man/nhs-nut.txt: introduce new driver manpage [#2692]
- drivers/nhs-nut.c: revise upsdrv\_makevariable(): fix help messages [#2692]
- drivers/nhs-nut.c: revise upsdrv\_makevariable(): use `snprintf()` and fix some more markup [#2692]
- drivers/nhs-nut.c: revise upsdrv\_makevariable() content and markup [#2692]
- drivers/nhs-nut.c: fix DRIVER\_VERSION to double-digits [#2692]
- NEWS.adoc, docs/nut.dict: NEWS.adoc: introduce nhs-nut (sic) driver [#2692]
- drivers/nhs-nut.c: fix upsdrv\_shutdown() [#2692]
- drivers/nhs-nut.c: fix trailing whitespace [#2692]
- drivers/nhs-nut.c: fix compiler complaints [#2692] nhs-nut.c: In function 'mount\_hwinfo': nhs-nut.c:786:5: error: missing initializer for field 'end\_marker' of 'pkt\_hwinfo' [-Werror=missing-field-initializers] 786 | }; | ^ nhs-nut.c:177:18: note: 'end\_marker' declared here 177 | unsigned int end\_marker; | ^~~~\~

- drivers/nhs-nut.c: fix compiler complaints [#2692] Copy-paste typo? nhs-nut.c: In function 'mount\_datapacket': nhs-nut.c:693:29: error: operation on 'pktdata.icarregms\_real' may be undefined [-Werror=sequence-point] 693 \ pktdata.icarregms\_real = pktdata.icarregms\_real = pktdata.icarregms \* 30; \ ~~~~~^~~~~~\
- drivers/nhs-nut.c: fix compiler complaints [#2692] nhs-nut.c: In function 'get\_bit\_in\_position': nhs-nut.c:357:22: error: comparison of integer expressions of different signedness: 'int' and 'size\_t' {aka 'long unsigned int'} [-Werror=sign-compare] 357 \ if (bit\_position >= size \* 8) { | ^~
- drivers/nhs-nut.c: fix compiler complaints [#2692] nhs-nut.c: In function 'upsdrv\_makevariable': nhs-nut.c:2090:88: error: format '%f' expects argument of type 'double', but argument 3 has type 'int' [-Werror=format=] 2090 \ sprintf(help,"Voltage In Percentage to calculate warning low level. Default is %0.2f",DEFAULLTPERC); \ ~^ \ | \ double \ %0.2d etc. for other default macros
- drivers/nhs-nut.c: fix compiler complaints [#2692] nhs-nut.c: In function 'upsdrv\_updateinfo': nhs-nut.c:1733:53: error: format not a string literal and no format arguments [-Werror=format-security] 1733 \ upsdebugx(1,alarm); | ^~
- drivers/nhs-nut.c: fix compiler complaints [#2692] nhs-nut.c:797:29: error: iteration 6 invokes undefined behavior [-Werror=aggressive-loop-optimizations] 797 \ pkthwinfo.status[i] = get\_bit\_in\_position(&datapacket[14],sizeof(datapacket[14]),i,0); \ ~~~~~^~~~~~
- drivers/nhs-nut.c: fix compiler complaints [#2692] nhs-nut.c:713:43: error: suggest braces around empty body in an 'if' statement [-Werror=empty-body] 713 \ if (pktdata.perc\_output > 100); \ ^ nhs-nut.c:713:13: error: this 'if' clause does not guard. ... [-Werror=misleading-indentation] 713 \ if (pktdata.perc\_output > 100); | ~ nhs-nut.c:714:17: note: ... this statement, but the latter is misleadingly indented
- drivers/nhs-nut.c: fix compiler complaints [#2692] nhs-nut.c:604:59: error: unused parameter 'size' [-Werror=unused-parameter] 604 \ pkt\_data mount\_datapacket(unsigned char \* datapacket, int size, double tempodecorrido,pkt\_hwinfo pkt\_upsinfo) { \ ~~~ nhs-nut.c:604:72: error: unused parameter 'tempodecorrido' [-Werror=unused-parameter] 604 \ pkt\_data mount\_datapacket(unsigned char \* datapacket, int size, double temp
- drivers/nhs-nut.c: fix compiler complaints [#2692] nhs-nut.c: In function 'print\_pkt\_data': nhs-nut.c:464:17: error: zero-length gnu\_printf format string [-Werror=format-zero-length] 464 \ upsdebugx(1,""); | ^~
- drivers/Makefile.am: add nhs-nut to SERIAL\_DRIVERLIST [#2692]

## 2.58 2024-11-27 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>

- data/cmdvartab, docs/nut-names.txt: more clear description for input.transfer.bypass.forced
- data/cmdvartab: change enable/disable to (enabled or disabled) in cmdvartab

## 2.59 2024-11-26 RikyPlaza <158032745+RikyPlaza@users.noreply.github.com>

- drivers/phoenixcontact\_modbus.c: Removed default case label since clang complains.

## 2.60 2024-11-26 Lucas Bocchi <lucas.bocchii@gmail.com>

- drivers/nhs-nut.c: Some fixes in 1) Miscalculations of battery voltage and amps 2) Miscalculations in battery capacity 3) Miscalculations in time remaining
- drivers/nhs-nut.c: Function have some errors and again need to re-commit code.
- drivers/nhs-nut.c: Some small fixes in get\_bit\_in\_position()
- drivers/nhs-nut.c: Some minor alterations

**2.61 2024-11-25 RikyPlaza <158032745+RikyPlaza@users.noreply.github.com>**

- drivers/phoenixcontact\_modbus.c: Corrected enum definition.
- NEWS.adoc: Updated NEWS.adoc
- drivers/phoenixcontact\_modbus.c: Used enum for model type instead of defines
- drivers/phoenixcontact\_modbus.c: Aligned device.model variable
- drivers/phoenixcontact\_modbus.c: Review of variable declaration due to clang build failure

**2.62 2024-11-25 Lucas Bocchi <lucas.bocchii@gmail.com>**

- drivers/nhs-nut.c: First commit of NHS drivers/nhs-nut.c

**2.63 2024-11-24 RikyPlaza <158032745+RikyPlaza@users.noreply.github.com>**

- drivers/phoenixcontact\_modbus.c: Avoid to use uint32\_t\* reading more than one modbus address and corrected alarm trigger (wrong bit used)

**2.64 2024-11-23 RikyPlaza <158032745+RikyPlaza@users.noreply.github.com>**

- drivers/phoenixcontact\_modbus.c: First review of the driver for [pull request #2689](#)

**2.65 2024-11-22 RikyPlaza <rikyrod2001@gmail.com>**

- drivers/phoenixcontact\_modbus.c: Added management for newer models which have different modbus addresses. Choice is made basing on firmware version.

**2.66 2024-11-21 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-hid.c, drivers/usbhid-ups.h: comments changes
- drivers/mge-hid.c: more small comments changes
- docs/nut-names.txt: fix again
- docs/nut-names.txt: fix nut-names.txt

**2.67 2024-11-20 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/python/app/NUT-Monitor: improve portability (especially in testing) by not relying on only shebang
- scripts/python/app/NUT-Monitor-py2gtk2.in, scripts/python/app/NUT-Monitor-py3qt5.in: scripts/python/app/NUT-Monitor-py3qt5.in and NUT-Monitor-py2gtk2.in: if SCRIPTDIR/../module/PyNUT.py exists, import it preferentially

**2.68 2024-11-20 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-hid.c: small comments added
  - drivers/mge-hid.c: small comments change
  - drivers/usbhid-ups.h: small comment added
  - drivers/usbhid-ups.c, drivers/usbhid-ups.h: add ess mode
  - drivers/mge-hid.c: small comments change
  - data/cmdvartab, docs/nut-names.txt, drivers/mge-hid.c: rename input.transfer.forced to input.transfer.bypass.forced
-

**2.69 2024-11-19 desertwitch <24509509+desertwitch@users.noreply.github.com>**

- drivers/mge-hid.c: reset ABM path when ABM not enabled

**2.70 2024-11-19 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/main.c: do\_loop\_shutdown\_commands(): handle "shutdown.default" as upsdvr\_shutdown() in main loop too [#2670]
- drivers/dstate.c, drivers/main.c, drivers/main.h, drivers/skel.c: Revert "drivers/main.{c,h}, drivers/dstate.c: introduce main\_instcmd\_fallback so drivers might implement their own "shutdown.default" at will [#2670]" This reverts commit 25250b02aea4e31ba20a17a33e6cf22cfa too messy in logs where driver.instcmd() think they are last in stack.
- drivers/main.c: move do\_forceshutdown handling to be after upsdvr\_initinfo() where we register INSTCMD handlers [#2670]
- drivers/adelsystem\_cbi.c, drivers/al175.c, drivers/apc\_modbus.c, drivers/apcsmart-old.c, drivers/apcsmart.c, drivers/apcupsd-ups.c, drivers/asem.c, drivers/bcmxcp.c, drivers/belkin.c, drivers/belkinunv.c, drivers/bestfcom.c, drivers/bestfortress.c, drivers/bestuferrups.c, drivers/bestups.c, drivers/bicker\_ser.c, drivers/blazer.c, drivers/clone-outlet.c, drivers/clone.c, drivers/dummy-ups.c, drivers/etapro.c, drivers/everups.c, drivers/gamatronic.c, drivers/generic\_gpio\_common.c, drivers/generic\_modbus.c, drivers/genericups.c, drivers/huawei-ups2000.c, drivers/hwmon\_ina219.c, drivers/isbmex.c, drivers/ivtsd.c, drivers/liebert-esp2.c, drivers/liebert-gxe.c, drivers/liebert.c, drivers/macoss-ups.c, drivers/masterguard.c, drivers/metasys.c, drivers/mge-utalk.c, drivers/microdowell.c, drivers/microsol-common.c, drivers/netxml-ups.c, drivers/nut-ipmipsu.c, drivers/nutdrv\_atcl\_usb.c, drivers/nutdrv\_qx.c, drivers/nutdrv\_siemens\_sitop.c, drivers/oneac.c, drivers/optiups.c, drivers/phoenixcontact\_modbus.c, drivers/pijuice.c, drivers/powercom.c, drivers/powerman-pdu.c, drivers/powerpanel.c, drivers/rhino.c, drivers/richcomm\_usb.c, drivers/riello\_ser.c, drivers/riello\_usb.c, drivers/safenet.c, drivers/skel.c, drivers/sms\_ser.c, drivers/snmp-ups.c, drivers/socomec\_jbus.c, drivers/solis.c, drivers/triplite.c, drivers/triplite\_usb.c, drivers/triplitesu.c, drivers/upscode2.c, drivers/usbhid-ups.c, drivers/victronups.c: drivers/\*.c: simplify upsdvr\_shutdown() back, as only "shutdown.default" implementations again [#2670]
- drivers/main.c: update some comments [#2670]
- drivers/main.c, drivers/main.h: drivers/main.{c,h}: introduce MAX\_SDCOMMANDS\_DEPTH for do\_loop\_shutdown\_commands() [#2670]
- drivers/dstate.c, drivers/main.c, drivers/main.h: drivers/main.{c,h}, drivers/dstate.c: introduce main\_instcmd\_fallback() so drivers might implement their own "shutdown.default" at will [#2670]
- drivers/main.c: drivers/main.{c,h}: call upsdvr\_shutdown\_sdcommands\_or\_default() not default upsdvr\_shutdown() as the implementation of forceshutdown() and "driver.killpower" INSTCMD (e.g. via drivename -k) [#2670]
- drivers/main.c, drivers/main.h: drivers/main.{c,h}: rename upsdvr\_shutdown\_default() ⇒ upsdvr\_shutdown\_sdcommands\_or\_default less ambiguously [#2670]
- drivers/main.c: do\_loop\_shutdown\_commands(): shortcut for "shutdown.default" support [#2670]
- drivers/main.c: implement INSTCMD "shutdown.default" as a way to call upsdvr\_shutdown() in any driver [#2670]
- drivers/main.c: update some comments

**2.71 2024-11-19 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- data/cmdvartab, docs/nut-names.txt: change rest bypass to Bypass
  - docs/nut-names.txt: bypass to Bypass in nut-names.txt
  - data/cmdvartab, docs/nut-names.txt: added to cmdvartab and nut-names.txt
  - drivers/mge-hid.c: added input.transfer.bypass.overload and input.transfer.bypass.outlimits
  - drivers/mge-hid.c: added input.bypass.switchable
-

## 2.72 2024-11-18 Jim Klimov <jimklimov+nut@gmail.com>

- NEWS.adoc, docs/man/ups.conf.txt, docs/nut-names.txt, drivers/main.c, drivers/main.h: drivers/main.{c,h}, docs: introduce shutdown.default INSTCMD concept and upsdrv\_shutdown\_default() shared method [#2670]
- drivers/powercom.c: drop checks for HAVE\_ATTRIBUTENORETURN in instcmd() [#2670]
- drivers/ivtsd.c: comment about upsdrv\_shutdown() oddness in this driver [#2670]
- NEWS.adoc, drivers/adelsystem\_cbi.c, drivers/al175.c, drivers/apc\_modbus.c, drivers/apcsmart-old.c, drivers/apcsmart.c, drivers/apcu-ups.c, drivers/asem.c, drivers/bcmxcp.c, drivers/belkin.c, drivers/belkinunv.c, drivers/bestfcom.c, drivers/bestfortress.c, drivers/bestuferrups.c, drivers/bestups.c, drivers/bicker\_ser.c, drivers/blazer.c, drivers/clone-outlet.c, drivers/clone.c, drivers/dummy-ups.c, drivers/etapro.c, drivers/everups.c, drivers/gamatronic.c, drivers/generic\_gpio\_common.c, drivers/generic\_modbus.c, drivers/genericups.c, drivers/huawei-ups2000.c, drivers/hwmon\_ina219.c, drivers/isbmex.c, drivers/ivtsd.c, drivers/liebert-esp2.c, drivers/liebert-gxe.c, drivers/liebert.c, drivers/macosx-ups.c, drivers/main.c, drivers/main.h, drivers/masterguard.c, drivers/metasys.c, drivers/microdowell.c, drivers/microsol-common.c, drivers/netxml-ups.c, drivers/nut-ipmipsu.c, drivers/nutdrv\_atcl\_usb.c, drivers/nutdrv\_qx.c, drivers/nutdrv\_siemens\_sitop.c, drivers/oneac.c, drivers/optiups.c, drivers/phoenixcontact\_modbus.c, drivers/pijuice.c, drivers/powercom.c, drivers/powerman-pdu.c, drivers/powerpanel.c, drivers/rhino.c, drivers/richcomm\_usb.c, drivers/riello\_ser.c, drivers/riello\_usb.c, drivers/safenet.c, drivers/skel.c, drivers/sms\_ser.c, drivers/snmp-ups.c, drivers/socomec\_jbus.c, drivers/solis.c, drivers/tripplite.c, drivers/tripplite\_usb.c, drivers/tripplitesu.c, drivers/upscode2.c, drivers/usbhid-ups.c, drivers/victronups.c: drivers/\*.c, drivers/main.h: introduce and use a common handling\_upsdrv\_shutdown flag to exit or not after upsdrv\_shutdown() and individual power-state related INSTCMDs [#2670]
- drivers/al175.c, drivers/apcupsd-ups.c, drivers/asem.c, drivers/bcmxcp.c, drivers/bicker\_ser.c, drivers/blazer.c, drivers/clone-outlet.c, drivers/clone.c, drivers/dummy-ups.c, drivers/generic\_gpio\_common.c, drivers/generic\_modbus.c, drivers/genericups.c, drivers/huawei-ups2000.c, drivers/hwmon\_ina219.c, drivers/isbmex.c, drivers/ivtsd.c, drivers/liebert.c, drivers/macosx-ups.c, drivers/main.c, drivers/netxml-ups.c, drivers/nut-ipmipsu.c, drivers/nutdrv\_qx.c, drivers/phoenixcontact\_modbus.c, drivers/powercom.c, drivers/powerman-pdu.c, drivers/riello\_ser.c, drivers/riello\_usb.c, drivers/safenet.c, drivers/skel.c, drivers/sms\_ser.c, drivers/snmp-ups.c, drivers/socomec\_jbus.c, drivers/usbhid-ups.c: drivers/\*.c: use common EF\_EXIT\_FAILURE and EF\_EXIT\_SUCCESS arg values for set\_exit\_flag(int) methods [#2670]
- include/common.h, docs/new-drivers.txt, NEWS.adoc: define common EF\_EXIT\_FAILURE and EF\_EXIT\_SUCCESS for set\_exit\_flag(int) methods [#2670]
- drivers/usbhid-ups.c: update to use "sdcommands" (if customized by user), by default chain the originally used sequence in upsdrv\_shutdown() [#2670]
- drivers/victronups.c: update to use "sdcommands" (if customized by user) [#2670]
- drivers/upscode2.c: update to use "sdcommands" (if customized by user) [#2670]
- drivers/tripplitesu.c: update to use "sdcommands" (if customized by user) [#2670]
- drivers/tripplite\_usb.c: update to use "sdcommands" (if customized by user) [#2670]
- drivers/tripplite.c: update to use "sdcommands" (if customized by user) [#2670]
- drivers/solis.c: update to use "sdcommands" (if customized by user) [#2670]
- drivers/socomec\_jbus.c: update to use "sdcommands" (if customized by user) [#2670]
- drivers/snmp-ups.c: update to use "sdcommands" (if customized by user), by default chain the originally used sequence in upsdrv\_shutdown() [#2670]
- drivers/adelsystem\_cbi.c, drivers/apc\_modbus.c, drivers/generic\_modbus.c, drivers/netxml-ups.c, drivers/nut-ipmipsu.c, drivers/phoenixcontact\_modbus.c, drivers/powerman-pdu.c, drivers/snmp-ups.c: drivers/\*.c: for networked drivers (snmp, netxml, IPMI, modbus/TCP) comment in upsdrv\_shutdown() some limitations of the media that networked UPS-shutdown may not be generally possible in an endgame [#2770]
- drivers/sms\_ser.c: update to use "sdcommands" (if customized by user) [#2670]
- drivers/skel.c: update to use "sdcommands" (if customized by user) [#2670]

- drivers/safenet.c: update to use "sdcommands" (if customized by user) [#2670]
- drivers/riello\_usb.c: update to use "sdcommands" (if customized by user) [#2670]
- drivers/riello\_ser.c: update to use "sdcommands" (if customized by user) [#2670]
- drivers/richcomm\_usb.c: update to use "sdcommands" and move logic from upsdrv\_shutdown() to upscmd("shutdown.return"); newly support INSTCMD at all [#2670]
- drivers/rhino.c: update to use "sdcommands" (if customized by user) [#2670]
- drivers/powerp-bin.c, drivers/powerp-txt.c, drivers/powerpanel.c: drivers/powerp\*.c: update to use "sdcommands" (if customized by user) [#2670]
- drivers/powerman-pdu.c: drivers/powerman.c: update to use "sdcommands" (if customized by user) [#2670]
- drivers/powercom.c: update to use "sdcommands" (if customized by user) [#2670]

### 2.73 2024-11-18 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>

- drivers/mge-hid.c: change double to %.1f of voltage and frequency
- drivers/mge-hid.c: add debug log in case out of limits for bypass/eco
- drivers/mge-hid.c: comment added
- drivers/mge-hid.c: rename eco function

### 2.74 2024-11-17 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/pijuice.c: update to use "sdcommands" and move logic from upsdrv\_shutdown() to upscmd("shutdown.stayoff"); newly support INSTCMD at all [#2670]
- drivers/phoenixcontact\_modbus.c: update to use "sdcommands" (if customized by user) [#2670]
- drivers/optiups.c: update to use "sdcommands" (if customized by user) [#2670]

### 2.75 2024-11-16 Jim Klimov <jimklimov@gmail.com>

- drivers/usbhid-ups.c: report unhandled negative HIDGetEvents() return values [#2681]
- NEWS.adoc, docs/man/usbhid-ups.txt, drivers/usbhid-ups.c, include/nutconf.hpp: drivers/usbhid-ups.c: fix fallout of #2671 and complete the feature with optional interrupt\_pipe\_no\_events\_tolerance setting [#2681]

### 2.76 2024-11-16 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/oneac.c: update to use "sdcommands" (if customized by user) [#2670]
  - drivers/nutdrv\_qx.c: update to use "sdcommands" (if customized by user) [#2670]
  - drivers/nutdrv\_siemens\_sitop.c: update to use "sdcommands" (if customized by user) [#2670]
  - drivers/nutdrv\_atcl\_usb.c: update to use "sdcommands" and move logic from upsdrv\_shutdown() to upscmd("shutdown.stayoff"); newly support INSTCMD at all [#2670]
  - drivers/nut-ipmipsu.c: update to use "sdcommands" (if customized by user) [#2670]
  - drivers/netxml-ups.c: update to use "sdcommands" (if customized by user) [#2670]
  - drivers/microsol-apc.c, drivers/microsol-common.c: drivers/microsol\*.c: update to use "sdcommands" (if customized by user) [#2670]
-



- drivers/microdowell.c: update to use "sdcommands" (if customized by user) [#2670]
- drivers/metasys.c: update to use "sdcommands" (if customized by user) [#2670]
- NEWS.adoc: fix for upsnotify references

## 2.77 2024-11-15 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/masterguard.c: update to use "sdcommands" and move logic from upsdrv\_shutdown() to upscmd("shutdown.return"); newly support INSTCMD at all [#2670]
- drivers/macosex-ups.c: update to use "sdcommands" (if customized by user) [#2670]
- drivers/liebert.c: update to use "sdcommands" (if customized by user) [#2670]
- drivers/liebert-gxe.c: update to use "sdcommands" (if customized by user) [#2670]
- drivers/liebert-esp2.c: update to use "sdcommands" (if customized by user) [#2670]
- drivers/ivtsd.c: update to use "sdcommands" (if customized by user) [#2670]
- drivers/isbmex.c: update to use "sdcommands" and move logic from upsdrv\_shutdown() to upscmd("shutdown.stayoff"); newly support INSTCMD at all [#2670]
- drivers/hwmon\_ina219.c: update to use "sdcommands" (if customized by user) [#2670]
- drivers/huawei-ups2000.c: update to use "sdcommands" (if customized by user) [#2670]
- drivers/genericups.c: update to use "sdcommands" (if customized by user) [#2670]
- drivers/generic\_modbus.c: update to use "sdcommands" and move logic from upsdrv\_shutdown() to upscmd("shutdown.stayoff") [#2670]
- drivers/generic\_gpio\_common.c: update to use "sdcommands" (if customized by user) [#2670]
- drivers/gamatronic.c: fix misplaced upslogx(1, ...) by upsdebugx()
- drivers/gamatronic.c: update to use "sdcommands" and move logic from upsdrv\_shutdown() to upscmd("shutdown.return"); newly support INSTCMD at all [#2670]
- drivers/etapro.c: update to use "sdcommands" and move logic from upsdrv\_shutdown() to upscmd("shutdown.return") [#2670]
- NEWS.adoc, common/common.c, docs/nut.dict, include/common.h: common/common.c, include/common.h: follow-up for upsnotify() [#1590, #2136] \* introduce str\_upsnotify\_state() for meaningful debug log messages; \* suggest to export NUT\_QUIET\_INIT\_UPSNOTIFY=true where we "will not spam more about it" for systems that do not currently expect to have notification support or need
- NEWS.adoc: document usbhid-ups fix for 0 HID Objects and lock-up on some devices [#2671] \* Grew from <https://github.com/-/user-attachments/files/17646606/0001-apc-fix.patch.txt> proposed at <https://github.com/networkupstools/nut/issues/2644#issuecomment-2459538691>

## 2.78 2024-11-15 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>

- drivers/mge-hid.c: fix commands func
  - drivers/mge-hid.c: add check range for eco/bypass commands
-

**2.79 2024-11-14 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/dummy-ups.c: update to use "sdcommands" (if customized by user) [#2670]
  - drivers/clone.c: update to use "sdcommands" (if customized by user) [#2670]
  - drivers/clone-outlet.c: update to use "sdcommands" (if customized by user) [#2670]
  - drivers/blazer.c, drivers/blazer\_ser.c, drivers/blazer\_usb.c: drivers/blazer\*.c: update to use "sdcommands" (if customized by user) [#2670]
  - drivers/bicker\_ser.c: update to use "sdcommands" (if customized by user) [#2670]
  - drivers/bestups.c: update to use "sdcommands" (if customized by user) [#2670]
  - drivers/bestuferrups.c: update to use "sdcommands" and move logic from upsdrv\_shutdown() to upscmd("shutdown.return"); newly support INSTCMD at all [#2670]
  - drivers/bestfortress.c: update to use "sdcommands" and move logic from upsdrv\_shutdown() to upscmd("shutdown.return") [#2670]
  - drivers/bestfcom.c: update to use "sdcommands" and move logic from upsdrv\_shutdown() to upscmd("shutdown.return"); newly support INSTCMD at all [#2670]
  - drivers/belkinunv.c: update to use "sdcommands" (if customized by user); revise warning message [#2670]
  - drivers/belkin.c: update to use "sdcommands" and move logic from upsdrv\_shutdown() to upscmd("shutdown.return") [#2670]
  - drivers/bcmxcp.c: update to use "sdcommands" (if customized by user) [#2670]
  - drivers/asem.c: update to use "sdcommands" (if customized by user) [#2670]
  - drivers/apcupsd-ups.c: update to use "sdcommands" (if customized by user) [#2670]
  - drivers/apcsmart.c: update to use "sdcommands" (if customized by user) [#2670]
  - drivers/apcsmart-old.c: update to use "sdcommands" (if customized by user) [#2670]
  - drivers/apc\_modbus.c: update to use "sdcommands" (if customized by user) [#2670]
  - drivers/al175.c: update to use "sdcommands" (if customized by user) [#2670]
  - drivers/adelsystem\_cbi.c: update to use "sdcommands" and move logic from upsdrv\_shutdown() to upscmd("shutdown.stayoff") [#2670]
  - drivers/everups.c: update to use "sdcommands" and have an instcmd() at all [#2670]
  - drivers/mge-utalk.c: update to use "sdcommands" [#2670]
  - drivers/mge-hid.c: bump subdriver version for added ECO code [#2637]
  - drivers/mge-hid.c: drop ECO/ABM-related changes from PR #2637 (revised in later PR)
  - clients/status.h: lower severity of ECO state [#2637]
  - drivers/mge-hid.c: reshuffle whitespace/markup of ECO code to same standard as around [#2637]
-



## 2.80 2024-11-12 Jim Klimov <jimklimov+nut@gmail.com>

- configure.ac: new distros' clang-medium warnings want -Wno-nullable-to-nonnull-conversion flag
- drivers/apc\_modbus.c: actually, report USB support (also) in DRIVER\_NAME [#2666]
- configure.ac, NEWS.adoc, UPGRADING.adoc: reshuffle defaulting of --with-modbus\+usb=yes and fix a typo checking --with-drivers there [#2666]
- NEWS.adoc, UPGRADING.adoc: NEWS.adoc: document fixes for libmodbus\+libusb support [#2666]
- drivers/apc\_modbus.c: report (in debug traces) whether USB-capable libmodbus was used to build this driver [#2666]
- configure.ac, docs/configure.txt: configure.ac: introduce --with-modbus\+usb option to require USB-capable libmodbus [#2666]
- configure.ac: report "Modbus drivers" as plural [#2676]
- configure.ac: report if building modbus\+usb [#2666]
- m4/nut\_check\_libmodbus.m4: try re-detecting libmodbus support for libusb adding its CFLAGS and LIBS into the loop [#2666]
- docs/config-prereqs.txt: update Debian/Ubuntu/TermUX with explicit binutils (for ldd) [#2673]
- NEWS.adoc, configure.ac, m4/nut\_report\_feature.m4: configure.ac, m4/nut\_report\_feature.m4: group lines of first section better with NUT\_REPORT\_FEATURE, NUT\_REPORT\_DRIVER, NUT\_REPORT\_PROGRAM [#2676]

## 2.81 2024-11-12 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>

- drivers/mge-hid.c: add ChargerType to ABM Table

## 2.82 2024-11-11 Jim Klimov <jimklimov@gmail.com>

- clients/Makefile.am: consider LIBSSL\_LDFLAGS\_RPATH [#2674]
- m4/nut\_check\_libnss.m4: experiment more with LIBSSL\_LDFLAGS\_RPATH on Solarish platforms [#2674]
- drivers/Makefile.am, server/Makefile.am, tools/nut-scanner/Makefile.am: server/Makefile.am, drivers/Makefile.am: consider LIBSSL\_LDFLAGS\_RPATH also [#2674]

## 2.83 2024-11-10 Jim Klimov <jimklimov@gmail.com>

- ci\_build.sh: OpenIndiana and 32-bit libgd, do not only check about that situation with GCC [#2673]
  - m4/nut\_check\_libnetsnp.m4: convert to use depCFLAGS etc. and mix them with build-common CFLAGS etc. for target-platform-relevant checks [#2673]
  - m4/nut\_check\_libneon.m4: convert to use depCFLAGS etc. and mix them with build-common CFLAGS etc. for target-platform-relevant checks [#2673]
  - m4/nut\_check\_libmodbus.m4: convert to use depCFLAGS etc. and mix them with build-common CFLAGS etc. for target-platform-relevant checks [#2673]
  - m4/nut\_check\_libgpod.m4: convert to use depCFLAGS etc. and mix them with build-common CFLAGS etc. for target-platform-relevant checks [#2673]
  - m4/nut\_check\_libavahi.m4: convert to use depCFLAGS etc. and mix them with build-common CFLAGS etc. for target-platform-relevant checks [#2673]
  - m4/nut\_check\_libwrap.m4: convert to use depCFLAGS etc. and mix them with build-common CFLAGS etc. for target-platform-relevant checks [#2673]
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- m4/nut\_check\_libusb.m4: convert to use depCFLAGS etc. and mix them with build-common CFLAGS etc. for target-platform-relevant checks [#2673]
- m4/nut\_check\_libsystemd.m4: convert to use depCFLAGS etc. and mix them with build-common CFLAGS etc. for target-platform-relevant checks [#2673]
- m4/nut\_check\_libregex.m4: convert to use depCFLAGS etc. and mix them with build-common CFLAGS etc. for target-platform-relevant checks [#2673]
- m4/nut\_check\_libpowerman.m4: convert to use depCFLAGS etc. and mix them with build-common CFLAGS etc. for target-platform-relevant checks [#2673]
- m4/nut\_check\_libopenssl.m4: convert to use depCFLAGS etc. and mix them with build-common CFLAGS etc. for target-platform-relevant checks [#2673]
- m4/nut\_check\_libnss.m4: convert to use depCFLAGS etc. and mix them with build-common CFLAGS etc. for target-platform-relevant checks [#2673]
- m4/nut\_check\_libltdl.m4: convert to use depCFLAGS etc. and mix them with build-common CFLAGS etc. for target-platform-relevant checks [#2673]
- m4/nut\_check\_libfreeipmi.m4: convert to use depCFLAGS etc. and mix them with build-common CFLAGS etc. for target-platform-relevant checks [#2673]
- m4/nut\_check\_libgd.m4: convert to use depCFLAGS etc. and mix them with build-common CFLAGS etc. for target-platform-relevant checks [#2673]
- m4/nut\_check\_libgd.m4: in test program, check also the gdImageString() [#2673]

#### 2.84 2024-11-10 Jim Klimov <jimklimov+nut@gmail.com>

- NEWS.adoc, conf/ups.conf.sample, docs/man/ups.conf.txt, docs/nut.dict, drivers/main.c, drivers/main.h: Introduce "sdcommands" setting for all drivers [#2670]

#### 2.85 2024-11-10 Jim Klimov <jim@jimklimov.com>

- NEWS.adoc, docs/config-prereqs.txt, docs/nut.dict: NEWS.adoc, docs/config-prereqs.txt: document solutions for #2673 and #2674
- configure.ac, m4/nut\_check\_libnss.m4, m4/nut\_check\_libopenssl.m4, tools/nut-scanner/Makefile.am: m4/nut\_check\_libnss.m4, tools/nut-scanner/Makefile.am, etc: track LIBSSL\_LDFLAGS\_RPATH (custom on Solaris/illumos) [#2674]

#### 2.86 2024-11-09 Jim Klimov <jimklimov+nut@gmail.com>

- docs/config-prereqs.txt: update Mozilla NSS notes for OpenIndiana and OmniOS
- ci\_build.sh: more CI clues to recognize target bitness

#### 2.87 2024-11-08 Jim Klimov <jimklimov+nut@gmail.com>

- docs/config-prereqs.txt, docs/nut.dict: docs/config-prereqs.txt: update for OpenIndiana packaging of Mozilla NSPR
  - docs/config-prereqs.txt: extra header-nss package in OpenIndiana 2024.x
  - ci\_build.sh: revise build of CGI on OI (troublesome with 32-bit variant nowadays)
-

**2.88 2024-11-06 Michał Bogdziewicz <michal@bogdziewicz.xyz>**

- drivers/usbhid-ups.c: handle zero HID events with reconnection

**2.89 2024-11-05 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/ci-farm-lxc-setup.txt, docs/config-prereqs.txt, docs/images/ci/jenkins-nut.txt, docs/nut.dict: docs/config-prereqs.txt, docs/ci-farm-lxc-setup.txt et al: update for NUT CI farm baseline JDK17 (per Jenkins core requirements since autumn 2024)

**2.90 2024-11-03 William Goodspeed <86338960+goodspeed34@users.noreply.github.com>**

- drivers/ydn23.h: fix bad lchksum Fix a bad checksum in length field. However, 'liebert-gxe' was not affected because the frame never exceeds 2<sup>4</sup>-1.

**2.91 2024-10-28 desertwitch <24509509+desertwitch@users.noreply.github.com>**

- drivers/mge-hid.c: improve path decisions and comments

**2.92 2024-10-28 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-hid.c: remove unused eaton\_abm\_charger\_type\_fun()
- drivers/mge-hid.c: add UPS.BatterySystem.Charger.ChargerType to abm table

**2.93 2024-10-27 desertwitch <24509509+desertwitch@users.noreply.github.com>**

- drivers/mge-hid.c: improve debug and enabled-ness
- drivers/mge-hid.c: remove ABM\_ENABLED\_TYPE
- drivers/mge-hid.c: explicit cast doubles to integers
- drivers/mge-hid.c: refactor, treat ABM unknown as disabled

**2.94 2024-10-27 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-hid.c: added comment
- drivers/mge-hid.c: remove comment
- drivers/mge-hid.c: more clear comments for charger modes
- drivers/mge-hid.c: typo in comment
- drivers/mge-hid.c: make abm charger tables better look

**2.95 2024-10-23 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-hid.c: add info for Note ABM
  - drivers/mge-hid.c: typo in comment
  - drivers/mge-hid.c: update and clean code for statuses for easy to read and work
  - drivers/mge-hid.c: make code looks better
-

**2.96 2024-10-22 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/acknowledgements.txt: PCM/Powercom has a link back to NUT, nice!
- docs/asciidoc.conf: support anchors in PDF
- docs/acknowledgements.txt: use 4th arg to linkdoc specifically for HTML-Chunked section file names
- docs/asciidoc.conf: introduce 4th arg to linkdoc specifically for HTML-Chunked section file names
- docs/acknowledgements.txt: adapt reference to anchor in README to different renderers
- docs/acknowledgements.txt: use "linkdoc" instead of "linksingledoc" (nut-website does not deliver single-HTML versions)

**2.97 2024-10-22 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-hid.c: remove dischrg in ups.status when on battery for 9E Model
- drivers/mge-hid.c: fix again
- drivers/mge-hid.c: fix if
- drivers/mge-hid.c: Fix again
- drivers/mge-hid.c: Fix Typo
- drivers/mge-hid.c: add possibly fix for 9E not chaging status when battery.charge < 100% , also avoid using same paths

**2.98 2024-10-21 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/mge-hid.c: bump version for beeper changes
- docs/nut.dict: update for recent edits

**2.99 2024-10-21 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-hid.c: change back to ABM\_UNKNOWN and use only BOOL chrg/dschrg (eaton\_charging\_info(),eaton\_discharging\_info()) func to make same as was in original code for Constant Charge

**2.100 2024-10-20 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/nut.dict: add linksrdoc and suggestsrdoc macros
  - NEWS.adoc: beeper support with MGE HID [#2662]
  - UPGRADING.adoc: document ALARMCritical setting [#2658]
  - INSTALL.nut.adoc: fix markup for linksrdoc to GH-compatible macro call ... and use proper new extensions
  - docs/ci-farm-lxc-setup.txt: fix text around linksrdoc
  - docs/asciidoc.conf: fix anchored linkdoc for chunked-HTML (with anchors becoming filenames)
  - docs/asciidoc.conf: refactor repetitive text with suggestsrdoc
  - docs/asciidoc.conf: define linksrdoc after its consumers and do not refer to "link" macro anymore
  - Makefile.am: maintainer-asciidocs: port POSIX-shell replace\_all() to help with backslashes
  - INSTALL.nut.adoc, README.adoc: Update NUT documentation sources with current docs/asciidoc-vars.conf: 4baaac1d4 (2024-10-20)
-

- docs/acknowledgements.txt: experiment with 3-argument linksingledoc rendering
- INSTALL.nut.adoc, docs/ci-farm-lxc-setup.txt: experiment with linksrcdoc and 3-argument linkdoc rendering
- docs/asciidoc-vars.conf: define linksrcdoc with top\_srcdir in the loop
- docs/asciidoc-vars.conf: try defining linksrcdoc macro
- docs/asciidoc.conf: add linksrcdoc macro; extend definition of linkdoc and linksingledoc macros with optional reference to NUT source text document
- docs/asciidoc.conf: update comments about macro definition per se

### 2.101 2024-10-20 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>

- drivers/mge-hid.c: add comment
- drivers/mge-hid.c: change back to ABM\_DISABLED

### 2.102 2024-10-19 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>

- drivers/mge-hid.c: set ABM\_UNKNOWN for test ups.status
- drivers/mge-hid.c: add advanced\_battery\_mode flag for not overwrite advanced\_battery\_monitoring if eaton\_abm\_enabled was runned
- drivers/mge-hid.c: add comment
- drivers/mge-hid.c: set advanced\_battery\_monitoring to disable in case of advanced\_battery\_monitoring != ABM
- drivers/mge-hid.c: change debug message
- drivers/mge-hid.c: comment change
- drivers/mge-hid.c: add debug for set advanced\_battery\_type

### 2.103 2024-10-18 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>

- drivers/mge-hid.c: fix again
  - drivers/mge-hid.c: typo fix
  - drivers/mge-hid.c: fixes
  - drivers/mge-hid.c: add eaton\_abm\_enabled\_type\_info()
  - drivers/mge-hid.c: typo fix
  - drivers/mge-hid.c: add eaton\_abm\_charger\_type\_fun()
  - drivers/mge-hid.c: add eaton\_abm\_charger\_type\_fun()
  - drivers/mge-hid.c: change if also in eaton\_abm\_enabled\_fun()
  - clients/status.h: change severity to 1 instead 2
  - drivers/mge-hid.c: change back to if (dstate\_getinfo("battery.charger.type"))
  - drivers/mge-hid.c: change all status same as original was \+ add ABM\_ENABLED\_TYPE
-

**2.104 2024-10-17 yonesmit <yonesmit@gmail.com>**

- drivers/mge-hid.c: Update mge-hid.c
- drivers/mge-hid.c: Update mge-hid.c

**2.105 2024-10-17 desertwitch <24509509+desertwitch@users.noreply.github.com>**

- clients/upsmon.c: additional debug messages for alarm states

**2.106 2024-10-17 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/ci-farm-lxc-setup.txt: fix asciidoc markup for nested paragraphs in indented lists

**2.107 2024-10-17 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-hid.c: add back missing advanced\_battery\_monitoring=value;
- drivers/mge-hid.c: try simple eaton\_abm\_enabled\_fun()
- drivers/mge-hid.c: int to double
- drivers/mge-hid.c: fix declaration
- drivers/mge-hid.c: fix eaton\_abm\_enabled\_fun()

**2.108 2024-10-16 desertwitch <24509509+desertwitch@users.noreply.github.com>**

- NEWS.adoc: fix typo regarding alarm handling
- NEWS.adoc: adapt for broader scope of alarm handling
- tools/nutconf/nutconf-cli.cpp: add alarm notifiers
- scripts/python/app/NUT-Monitor-py2gtk2.in: add alarm status
- scripts/python/app/NUT-Monitor-py3qt5.in: add alarm status
- scripts/augeas/nutupsmonconf.aug.in: add alarm notifiers
- include/nutconf.hpp: add alarm notifiers
- docs/man/nutconf.txt: add alarm notifiers
- common/nutconf.cpp, common/nutwriter.cpp: add alarm notifiers
- clients/status.h: add alarm status

**2.109 2024-10-16 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-hid.c: battery.charger.type.status added
  - drivers/mge-hid.c: same for eaton\_abm\_chrg\_dischrg\_info()
  - drivers/mge-hid.c: put battery.charger.status \+ battery.charger.mode and battery.charger.status for bath in one functions
  - drivers/mge-hid.c: add eaton\_abm\_chrg\_dischrg\_status\_fun()
  - drivers/mge-hid.c: added battery.charger.abm.status for UPS.BatterySystem.Charger.Status
-

- drivers/mge-hid.c: add `eaton_abm_status_fun()`
- drivers/mge-hid.c: fix ABM Table
- drivers/mge-hid.c: some try for add `battery.charger.status \+ battery.charger.mode`
- drivers/mge-hid.c: add `battery.charger.type`

#### **2.110 2024-10-15 desertwitch <24509509+desertwitch@users.noreply.github.com>**

- docs/man/upsmon.txt: make alarm notifiers consistent
- docs/man/upsmon.conf.txt: add alarm settings
- docs/man/upsmon.txt: add alarm settings
- docs/nut.dict: add alarm-related words
- conf/upsmon.conf.sample.in: add alarm settings
- NEWS.adoc: add upsmon alarm handling

#### **2.111 2024-10-14 desertwitch <24509509+desertwitch@users.noreply.github.com>**

- clients/upsmon.c, clients/upsmon.h: add alarm handling

#### **2.112 2024-10-14 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- docs/nut-names.txt: change to `on` in `nut-names.txt` also
- drivers/mge-hid.c: change some values for `bypass/eco`

#### **2.113 2024-10-13 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- data/cmdvartab, docs/nut-names.txt: `ecocontrol` change description
- docs/nut-names.txt: change `nut-names.txt` also
- drivers/mge-hid.c: change `eco/bypass` values to avoid `ERR TOO-LONG`

#### **2.114 2024-10-12 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-hid.c: add comment
  - drivers/mge-hid.c: fix `upsdebugx`
  - drivers/mge-hid.c: check freq limit in separate block for `eaton_input_bypass_check_range()`
  - drivers/mge-hid.c: check freq limit in separate block in `eco` mode
  - drivers/mge-hid.c: add function for check `eco` range
  - drivers/mge-hid.c: change comments sign
  - drivers/mge-hid.c: add frequency default in case no value
-

**2.115 2024-10-11 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc: announce ECO mode concept support [[issue #2495](#), [PR #2637](#)]
- scripts/python/app/NUT-Monitor-py2gtk2.in, scripts/python/app/NUT-Monitor-py3qt5.in: scripts/python/app/NUT-Monitor- \*: add reporting for ECO status [[#2367](#)]
- clients/upsmon.c, clients/upsmon.h, common/nutconf.cpp, common/nutwriter.cpp, conf/upsmon.conf.sample.in, docs/man/upsmon.conf, docs/man/upsmon.txt, docs/nut.dict, include/nutconf.hpp, scripts/augeas/nutupsmonconf.aug.in, tools/nutconf/nutconf-cli.cpp: upsmon (sources, docs, config samples, C++ nutconf support): add tracking and reporting for ECO status [[#2367](#)]
- clients/status.h: add an entry for ECO status [[#2367](#)]
- docs/nut.dict: update for changes in docs/nut-names.txt [[#2495](#), [#2637](#)]

**2.116 2024-10-11 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-hid.c: add freq to function comment
- drivers/mge-hid.c: add frequency range check to eaton\_input\_bypass\_check\_range()
- drivers/mge-hid.c: move declaration uppper
- drivers/mge-hid.c: fix again upsdebugx
- drivers/mge-hid.c: fix typo
- drivers/mge-hid.c: more details for debugx \+ move declaration up
- drivers/mge-hid.c: fix2 debugx
- drivers/mge-hid.c: fix for upsdebugx
- drivers/mge-hid.c: function to up for definition
- drivers/mge-hid.c: fix3 eaton\_input\_bypass\_check\_range()
- drivers/mge-hid.c: add define values
- drivers/mge-hid.c: fix3 eaton\_input\_bypass\_check\_range()
- drivers/mge-hid.c: fix2 eaton\_input\_bypass\_check\_range()
- drivers/usbhid-ups.c: disable eco alarm
- drivers/mge-hid.c: rename to eaton\_input\_bypass\_check\_range()
- drivers/mge-hid.c: fix eaton\_check\_bypass\_range()
- drivers/mge-hid.c: fix for eaton\_check\_bypass\_range()
- drivers/mge-hid.c: add eaton\_check\_bypass\_range() for check bypass limit

**2.117 2024-10-10 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-hid.c: input.bypass.switch.off up to 12 becose return 11 bytes

**2.118 2024-10-09 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- docs/nut-names.txt: added values to nut-names
  - data/cmdvartab, drivers/mge-hid.c: add values to cmdvartab \+ change to bypass.sart/stop instead bypass.on/off
  - drivers/mge-hid.c, drivers/usbhid-ups.c: rename to ECO(HE) mode! fix comments
-



**2.119 2024-10-08 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/Makefile.am, docs/images/ci/ci-root.css: docs/images/ci/ci-root.css: Introduce a root NUT CI farm CSS file to include others (tracked in different repos)
- docs/images/ci/jenkins-nut.css: update comments, add a style for Customizable Header plugin with DigitalOcean logo
- docs/man/usbhid-ups.txt: battery.runtime=65535 troubleshooting [#731, #1740 et al]

**2.120 2024-10-07 Jim Klimov <jimklimov+nut@gmail.com>**

- data/driver.list.in: Add APC Back-UPS BK650M2-CH report with usbhid-ups [#1970]
- docs/man/usbhid-ups.txt: extra comments about CPS offdelay [#578] Closes: #578
- data/driver.list.in: Add NetVision U4BC02CB00NY100 report with snmp-ups [#1732] Closes: #1732
- data/driver.list.in: Add APC Smart-UPS 5000 RM report with snmp-ups [#1559]
- data/driver.list.in: Add Liebert GXT4-1500RT120 report [nut-ddl#42]
- data/driver.list.in: Add Powermatic Cleanline L-1000C report [nut-ddl#43]
- data/driver.list.in: Add APC Back-UPS ES 850G2 reports [nut-ddl#40]
- data/driver.list.in: Add Techly 1000VA (very basic info so far) [#2651]
- data/driver.list.in: Add 2E PS1000L reports [nut-ddl#41]

**2.121 2024-10-07 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-hid.c: comment added for ... forced
- drivers/mge-hid.c: remove nfo\_lkp\_t eaton\_input\_transfer\_on\_off\_info as eaton\_enable\_disable\_info available
- drivers/mge-hid.c: input.transfer.forced.enabled added \+ input.bypass.switch.on/off for RW vars

**2.122 2024-10-04 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/usbhid-ups.c: change back to ecomode
- drivers/mge-hid.c: change he to ecomode

**2.123 2024-10-03 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-hid.c: rename to bypassauto in info\_lkp\_t eaton\_input\_bypass\_mode\_info[]
- drivers/mge-hid.c: spaces typo fixes
- drivers/mge-hid.c: eaton\_input\_bypass\_mode\_info[] added
- drivers/mge-hid.c: add bypass commands for test

**2.124 2024-10-02 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc, conf/ups.conf.sample, docs/man/nut\_usb\_addvars.txt, docs/man/ups.conf.txt, drivers/main.c, include/nutconf.hpp: drivers/main.c, docs, etc.: accept "LIBUSB\_DEBUG=NUM" setting via ups.conf
  - drivers/main.c: accept "debug\_min" case-insensitively, like in upsmon and upsd
-

**2.125 2024-10-01 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-hid.c: add ecomode commands
- drivers/usbhid-ups.c: change ecomode to high-efficiency in status\_info
- drivers/mge-hid.c: info\_lkp\_t eaton\_input\_mode\_info[] format spaces
- drivers/usbhid-ups.c: fix typo ups\_status
- drivers/mge-hid.c, drivers/usbhid-ups.c: eco\_mode\_info[] back 3 values \+ UPS.PowerConverter.Input.[5].PresentStatus.Used added

**2.126 2024-09-30 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-hid.c: delete typo space
- drivers/usbhid-ups.h: define info\_lkp\_t eco\_mode\_info[] in usbhid-ups.h
- drivers/usbhid-ups.c: fix typo
- drivers/usbhid-ups.c: fix info\_lkp\_t eco\_mode\_info[]
- drivers/usbhid-ups.c, drivers/usbhid-ups.h: add eco\_mode info

**2.127 2024-09-25 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- data/cmdvartab: Fix typo in "Outlet [P] → [p]rotection status"
- drivers/mge-hid.c: change outlet.2 ... Outlet.[1] to Outlet.[3]
- data/cmdvartab, docs/nut-names.txt, drivers/mge-hid.c: outlet.n.status back and new one move to intro outlet.1.protection also define in cmdvartab and /docs/nut-names.txt
- drivers/mge-hid.c: outlet.1.switch.status rename back to outlet.1.status
- docs/nut-names.txt: change to switch (0-2) for input.eco.switchable in nut-names.txt
- drivers/mge-hid.c: comment on ESS mode
- data/cmdvartab, docs/nut-names.txt: adding input.eco.switchable, outlet.n.ecocontrol to cmdvartab and /docs/nut-names.txt
- drivers/mge-hid.c: added info\_lkp\_t eaton\_input\_mode\_info[] for input.eco.switchable
- drivers/mge-hid.c, drivers/usbhid-ups.c, drivers/usbhid-ups.h: move info\_lkp\_t outlet\_eco\_yes\_no\_info[] to mge-hid.c

**2.128 2024-09-24 Jim Klimov <jimklimov@gmail.com>**

- docs/man/usbhid-ups.txt: document troubleshooting Linux USB quirk vs. Eaton devices [#630]

**2.129 2024-09-24 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc: update and move "expected" improvements from v2.8.3 to v2.8.4 goals

**2.130 2024-09-24 DaRK AnGeL <masterwishx@gmail.com>**

- drivers/mge-hid.c: some typo fix
-

**2.131 2024-09-24 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-xml.c: remove typo space
- drivers/mge-xml.c: remove also from mge-xml.c
- drivers/powerp-bin.c: remove `outlet_eco_yes_no_info[]` from powerp-bin.c
- drivers/mge-xml.c, drivers/usbhid-ups.h: `outlet_eco_yes_no_info` defined in upshid-ups.h
- drivers/mge-xml.c: `outlet.1.ecocontrol` added to mge-xml to fix undefined
- drivers/mge-hid.c: remove `*outlet_eco_yes_no_info` from mgr-hid.c
- drivers/mge-hid.c, drivers/mge-xml.c, drivers/powerp-bin.c, drivers/usbhid-ups.c: try to fix definition of `outlet_eco_yes_no_info` error
- drivers/powerp-bin.c, drivers/usbhid-ups.c: added `info_lkp_t outlet_eco_yes_no_info` and `valtab_t outlet_eco_`
- drivers/mge-hid.c: introduce `input.eco.switchable`
- drivers/mge-hid.c, drivers/mge-xml.c: `outlet_eco_yes_no_info` move to mge-xml.c
- drivers/mge-hid.c: `eaton_outlet_protection_status_info \+ outlet_eco_yes_no_info` fix
- drivers/mge-hid.c: add `eco_pegasus_yes_no_info` func to `uotlet.2.ecocontrol`
- drivers/mge-hid.c: fix typo in comments
- drivers/mge-hid.c: some of the fixes

**2.132 2024-09-23 Jim Klimov <jimklimov@gmail.com>**

- drivers/liebert-gxe.c: non-functional cosmetic fixes (NUT codebase style) [#2629]
- drivers/ydn23.h: non-functional cosmetic fixes (NUT codebase style) [#2629]
- drivers/liebert-gxe.c: issue messages mentioning "liebert-gxe" not plain "gxe" [#2629]
- docs/man/liebert-gxe.txt: use double-dash for tirez [#2629]
- docs/man/liebert-gxe.txt: clarify port/cable used [#2629]
- NEWS.adoc: move liebert-gxe introduction into NUT v2.8.3 timeframe [#2629]

**2.133 2024-09-23 DaRK AnGeL <masterwishx@gmail.com>**

- drivers/mge-hid.c: first trying to add values

**2.134 2024-09-23 Arnaud Quette <arnaudquette@eaton.com>**

- drivers/mge-hid.c: EATON HID: completion on examples
- drivers/mge-hid.c: EATON HID: add missing usages and paths

**2.135 2024-09-22 Jim Klimov <jimklimov@gmail.com>**

- drivers/liebert-gxe.c: satisfy opposing desires of static analysis Compiler wants both to handle default cases in switch lists, and dislikes a `default` label in enum handling when all known values are handled (and wants them all to be handled). The clash is only resolvable by pragmas, like elsewhere in out codebase.
-

**2.136 2024-09-15 desertwitch <24509509+desertwitch@users.noreply.github.com>**

- clients/upssched.c, drivers/adelsystem\_cbi.c, drivers/all175.c, drivers/dstate.c, drivers/generic\_modbus.c, drivers/main.c, drivers/s/riello\_usb.c: clients/, drivers/: use \_with\_errno helpers instead of strerror(errno)

**2.137 2024-09-14 desertwitch <24509509+desertwitch@users.noreply.github.com>**

- docs/man/usbhid-ups.txt: add missing lowbatt argument

**2.138 2024-09-14 Jim Klimov <jimklimov@gmail.com>**

- docs/config-prereqs.txt: add a few recommended MacOS/HomeBrew packages

**2.139 2024-09-14 Gong Zhile <goodspeed@mailo.cat>**

- NEWS.adoc, data/driver.list.in, docs/man/Makefile.am, docs/man/liebert-gxe.txt, docs/nut.dict, drivers/Makefile.am, drivers/liebert-gxe.c, drivers/ydn23.h: drivers/ydn23.h: add ydn23 protocol helper, drivers/liebert-gxe.c: add Liebert GXE Series driver

**2.140 2024-09-13 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/main.c: upsdrv\_banner(): keep NUT version near NUT project name, only mention "driver" if needed (once) [#2583]  
Example change: \* Network UPS Tools driver 2.8.2.1064-1064-g501bbdc62 (development iteration after 2.8.2) - network XML UPS 0.46 \* Network UPS Tools 2.8.2.1064-1064-g501bbdc62 (development iteration after 2.8.2) - network XML UPS driver 0.46 Compare to older versions' markup where NUT version tailed in the end (generally fixed by PR #2583 due to possible nested parentheses in dev builds): \* Network UPS Tools - Generic HID driver 0.53 (2.8.2) ... and to other non-driver programs now, which generally do print their program name/type after NUT before version: \* Network UPS Tools upsmon 2.8.2.1064-1064-g501bbdc62 (development iteration after 2.8.2)

**2.141 2024-09-12 Jim Klimov <jimklimov@gmail.com>**

- docs/nut-names.txt: document the Input Voltage Hysteresis concept [#2620]
- docs/nut-names.txt: re-phrase input.transfer.hysteresis table description [#2620]
- drivers/mge-hid.c: bump sub-driver version due to added data points [#2620]
- data/cmdvartab, docs/nut-names.txt, drivers/mge-hid.c: Typo fix (hysteresYs ⇒ hysteresIs) [#2620]

**2.142 2024-09-12 Jim Klimov <jimklimov+nut@gmail.com>**

- data/cmdvartab: fix a bit of wording for "percent of nominal"
- docs/nut-names.txt: fix asciidoc table markup and a bit of wording
- Makefile.am: fix shell typo [#2624]

**2.143 2024-09-12 DaRK AnGeL <masterwishx@gmail.com>**

- data/cmdvartab, docs/nut-names.txt, drivers/mge-hid.c: add hysteresys value \+ add nominal to freq range

**2.144 2024-09-12 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- data/cmdvartab: Update cmdvartab
-

**2.145 2024-09-11 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac: avoid hard-coded auglensdir if we can, to avoid broken distcheck on some platforms/builds
- COPYING, docs/acknowledgements.txt, docs/nut.dict, scripts/installer/.gitignore, scripts/installer/Makefile.am, scripts/installer/REAL scripts/installer/common\_EN/license.txt: docs: finalize re-licensing of scripts/installer from Eaton to NUT terms (GPL) [#2288, #2621]
- m4/ax\_realpath\_lib.m4: recognize "GNU ld script" files which redirect to a real library
- m4/ax\_realpath\_lib.m4: fix indentation
- NEWS.adoc, drivers/usb-common.c, tools/nut-scanner/scan\_usb.c: tools/nut-scanner/scan\_usb.c: port nut\_usb\_get\_string() from usb-common.c [#2604, #2615]
- drivers/usb-common.c: fix C style of comments [#2604]
- docs/man/nut\_usb\_addvars.txt: make a NOTE of LibUSB specific debugging [#2616]
- Makefile.am: install-win-bundle-thirdparty DLL check: cover libexecdir [#1936 follow-up]
- drivers/clone-outlet.c, drivers/clone.c: drivers/clone{,-outlet}.c: throttle if polling too quickly
- drivers/clone-outlet.c, drivers/clone.c: drivers/clone{,-outlet}.c: update header comment descriptions and ©

**2.146 2024-09-11 DaRK AnGeL <masterwishx@gmail.com>**

- data/cmdvartab, docs/nut-names.txt: add missing values to nut vars \+ *percent Hz* in cmdvartab

**2.147 2024-09-10 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/Makefile.am: combine "make spellcheck-interactive" with "make touch-files and update them properly"
- drivers/clone-outlet.c, drivers/clone.c: drivers/clone{,-outlet}.c: parse\_args(): add a skip\_out label to log ignored socket protocol line details
- docs/man/dummy-ups.txt: update regarding clone-outlet driver and differences of the three

**2.148 2024-09-09 DaRK AnGeL <masterwishx@gmail.com>**

- data/cmdvartab: add values description
- drivers/mge-hid.c: change high to range in (input.transfer.frequency.bypass and input.transfer.frequency.eco)
- drivers/mge-hid.c: Add Bypass and ECO Transfer values for future work on enable Eco mode for Eaton

**2.149 2024-09-08 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/clone.c, drivers/clone-outlet.c: reconcile shared code style
  - docs/man/clone.txt: revise vs. clone-outlet page
-

**2.150 2024-09-07 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/man/Makefile.am, docs/man/clone-outlet.txt, docs/nut.dict: Introduce docs/man/clone-outlet.txt
- drivers/libusb0.c, drivers/libusb1.c: drivers/libusb{0,1}.c: rename nut\_libusb\_subdriver\_defaults() to common style [#2611]
- NEWS.adoc, docs/nut.dict: NEWS.adoc: explain USB enumeration fix [#2611] With an Arduino Leonardo compatible board attached alongside a CyberPower CP1500PFCLCD, usbhid-ups would incorrectly conclude that there was no kernel driver attached to the UPS and then fail subsequent steps accordingly. The cause is the global usb\_communication\_subdriver\_t struct; when a subdriver (e.g. arduino-hid) sets different values during the enumeration loop, they're not set back to defaults afterwards, causing issues with other subdrivers (e.g. cps-hid). So, if a subdriver doesn't match, set a selection of fields back to their default values using the newly added nut\_usb\_subdriver\_defaults() before the next attempt. // tofurky

**2.151 2024-09-03 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc: move bicker\_ser entry to keep USB-related news together
- drivers/blazer\_usb.c, drivers/nutdrv\_qx.c, drivers/riello\_usb.c, drivers/tripplite\_usb.c, drivers/usbhid-ups.c: Bump USB-capable driver versions impacted by new nut\_usb\_get\_string() method [#1925, #2604]
- NEWS.adoc: document new nut\_usb\_get\_string() method - extend [#1925, #2604]
- drivers/libusb0.c, drivers/libusb1.c: drivers/libusb{0,1}.c: rename static nut\_usb\_set\_altinterface() ⇒ nut\_libusb\_set\_altinterface() to maintain a consistent code style [#2604]
- NEWS.adoc: document new nut\_usb\_get\_string() method [#1925, #2604]

**2.152 2024-09-01 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc: document fix for allow\_killpower flag [#2605]
- tests/NIT/nit.sh: default to run with BASH where available (and system shell is not it)
- tests/NIT/nit.sh: check with BASH before bailing out with available tools that did not see hits Builds in Android with Termux lack the permissions to see open ports.
- tests/NIT/nit.sh: check that /proc/net/tcp\* are readable, not just existing Builds in Android with Termux lack the permissions to see open ports.
- tests/NIT/nit.sh: use TABCHAR in regex for portability

**2.153 2024-08-28 desertwitch <24509509+desertwitch@users.noreply.github.com>**

- drivers/main.c: comment for setting driver.flag.allow\_killpower default

**2.154 2024-08-28 Tormod Volden <debian.tormod@gmail.com>**

- drivers/libusb0.c: libusb0: Rename nut API functions for consistency with libusb1.c The original names could also be confused with libusb-1.0 API functions. Also rename nut\_libusb\_strerror() although not a nut API function.
  - drivers/libusb0.c, drivers/libusb1.c: libusb0/1: Simplify range checks in nut API nut\_libusb\_get\_string() The string index is a number between 1 and 255, simply because it is the lower byte of wValue in the GET\_DESCRIPTOR request. String index 0 is used for retrieving the langid array, so it is not valid for this function. There is no reason to impose a limit to the length of the buffer that the user is lending us, certainly not above the range of the involved types, so just a minimal sanity check is enough. Since in the minimal case we would return an empty zero-terminated string, it must at least have room for this.
  - drivers/libusb0.c, drivers/libusb1.c: libusb0/1: Fix up comments about expected types
-

- drivers/libusb0.c, drivers/libusb1.c: libusb0/1: Use nut\_usb\_get\_string() instead of libusb functions Fixes [#1925](#)
- drivers/usb-common.c, drivers/usb-common.h: usb-common.c: Add API-neutral nut\_usb\_get\_string() This function doesn't use usb\_get\_string\_simple() from libusb0 or libusb\_get\_string\_descriptor\_ascii() from libusb1 but replaces them to be able to add a workaround for devices with broken langid descriptors. If the langid descriptor is invalid, the en\_US language is assumed. (See <https://github.com/networkupstools/nut/issues/1925>) It also adds retries to the string descriptor fetching, which may help in some cases. (See <https://github.com/networkupstools/nut/issues/414>) A small delay is introduced between the retries.

### 2.155 2024-08-27 desertwitch <24509509+desertwitch@users.noreply.github.com>

- drivers/main.c: do not overwrite set allow\_killpower flag with defaults

### 2.156 2024-08-26 Tormod Volden <debian.tormod@gmail.com>

- drivers/libusb0.c, drivers/libusb1.c: Revert "drivers/libusb{0,1}.c: retry getting Manufacturer/Product/Serial a few times if failed on the first" This reverts commit 0fa5687aef27ba7ada1cd8aeecc6963560c08f00f. The reverted commit introduced retries when failing to retrieve various device string descriptors. In the following commits we will attempt this in a more centralized way, and for the purpose of clarity it is easiest to retract this and start with cleaner sheets.
- drivers/libusb1.c: Revert "drivers/libusb1.c: nut\_libusb\_open(): try to re-fetch curDevice→Vendor, Product, Serial if NULL, after claiming it by other criteria [#2562](#)" This reverts commit ea99f96f87ea06cf5ff486ba7541bf8f74e2c33b. The reverted commit attempted to workaround a string descriptor retrieval issue by retrying after claiming an interface on the device. However, this did not help, and it was later found out that a broken langid descriptor was the root issue all along.
- drivers/libusb0.c: Revert "drivers/libusb0.c: libusb\_open(): try to re-fetch curDevice→Vendor, Product, Serial if NULL, after claiming it by other criteria [#2562](#)" This reverts commit ad83b70bbd3a0f6eff64d6b8dbfc14621d3cba97. The reverted commit attempted to workaround a string descriptor retrieval issue by retrying after claiming an interface on the device. However, this did not help, and it was later found out that a broken langid descriptor was the root issue all along.

### 2.157 2024-08-22 Jim Klimov <jimklimov+nut@gmail.com>

- clients/upsmon.c: generalize handling of unexpectedly long sleeps and negative time jumps [\[#1070\]](#)
- clients/upsmon.c: fix debug print format for sleep during loop-end [\[#1070\]](#)
- docs/FAQ.txt, docs/nut.dict: docs/FAQ.txt: refer to "nutshutdown" script from the older example
- NEWS.adoc, docs/FAQ.txt, docs/man/upsdrvctl.txt, drivers/upsdrvctl.c, scripts/Solaris/nut-driver.xml.in, scripts/systemd/nut-driver@.service.in, scripts/systemd/nutshutdown.in, tests/NIT/nit.sh: upsdrvctl and docs: warn about direct use on builds with systemd/SMF (so NDE)
- configure.ac: expose WITH\_SOLARIS\_SMF also to C code
- clients/upsmon.c: add check for negative time jumps [\[#1070\]](#), [#2597](#)
- clients/upsmon.c: fix check for strange time jumps [\[#1070\]](#)

### 2.158 2024-08-21 Jim Klimov <jimklimov+nut@gmail.com>

- NEWS.adoc: document generalization of upsmon clock-jump handling [#2597](#)
  - clients/upsmon.c: monitor if our sleep during end of loop cycle took too long [\[#1070\]](#) Treat **any** clock jump same as OS sleep (act to avoid stale UPS info), even if it was not a suspend/hibernate event but e.g. summer/winter time change or just upsmon suspended by a debugger or blocked stdio.
  - clients/upsmon.c: when we monitor changes of sleep/wake state and have a value from an aborted older loop cycle, make sure it is up to date now just before we handle it [\[#1070\]](#)
-



- clients/upsmon.c: when we report ability (or not) to use sleep inhibition, report also if we can monitor changes of sleep/wake state [#1070]
- tests/NIT/nit.sh: export TESTPASS\_\* values to NIT.env for the sandbox after we actually have them [#2597]
- common/common.c: Inhibit(), isPreparingForSleep(): refactor debug-logging, add notes that we mark methods unsupported at run-time [#1070]
- clients/upsmon.c: fix a bit of coding style for WIN32 code path
- clients/upsmon.c: when OS wants to sleep, abort the UPS polling loop [#1070]
- clients/upsmon.c: when OS wants to sleep, abort the sleep(sleepval) done between loop cycles [#1070]
- clients/upsmon.c: consult whether isInhibitSupported/isPreparingForSleepSupported to avoid needless decisions and logs on some deployments [#1070]
- common/common.c, include/common.h: include ways to quickly query whether isInhibitSupported/isPreparingForSleepSupported [#1070]
- clients/upsmon.c: when OS wakes up from sleep, reload\_conf() AFTER resetting clocks on UPS readings [#1070] Also make sure it is treated as a reload and not initial load!
- tests/NIT/README.adoc, docs/nut.dict: update about mocking upsmon.conf [#2597]
- clients/upsmon.c: when waking up after OS sleep/hibernation, reset UPS times to "now" to make-believe the readings are fresh and not stale [#1070]
- clients/upsmon.c: report sleep\_inhibitor\_status value (quietly) during each loop processing [#1070]
- touch-file callers can use to check for prepared sandbox [#2597]
- tests/NIT/Makefile.am: build a few more binaries commonly used by NIT (or manually tested by NIT sandbox) [#2597]
- tests/NIT/nit.sh: report NIT.env location for sourcing also after printing it out [#2597]
- tests/NIT/nit.sh: export TESTDIR value to NIT.env [#2597]
- tests/NIT/nit.sh: export TESTPASS\_\* values to NIT.env [#2597]
- tests/NIT/nit.sh: remember the caller-provided TESTDIR value (if any) and do not remove it after exit [#2597]
- tests/NIT/nit.sh: allow caller to set TESTDIR, and have more reasons to mktemp one in a non-default location [#2597]
- Makefile.am, tests/NIT/Makefile.am, tests/NIT/nit.sh: Makefile.am, tests/NIT/Makefile.am: introduce check-NIT-sandbox check-NIT-sandbox-devel recipes to streamline dev-testing [#2597]

## 2.159 2024-08-19 Jim Klimov <jimklimov+nut@gmail.com>

- common/common.c, m4/nut\_check\_libsystemd.m4: open\_sdbus\_once(): use older sd\_bus\_open\_system() \+ optional sd\_bus\_set\_des as fallback [#1070]
  - conf/upsmon.conf.sample.in: re-word some text about notifications
  - clients/upsmon.h: fix whitespaces
  - clients/upsmon.c, clients/upsmon.h, common/nutconf.cpp, common/nutwriter.cpp, conf/upsmon.conf.sample.in, docs/man/nutconf.txt, docs/man/upsmon.conf.txt, docs/man/upsmon.txt, include/nutconf.hpp, scripts/augeas/nutupsmonconf.aug.in, tools/nutconf/ncli.cpp: upsmon code, docs, config tools: introduce notifications for SUSPEND\_STARTING and SUSPEND\_FINISHED [#1070]
  - docs/man/nutconf.txt: update with new notification types of NUT v2.8.1\+ era
  - clients/upsmon.c: report init\_Inhibitor() success, should only be once per uptime [#1070]
-



- common/common.c: open\_sdbus\_once(): fiddle with sd\_bus\_set\_allow\_interactive\_authorization() [#1070]
  - common/common.c: Inhibit(), isPreparingForSleep(): log detailed systemd exception, if available [#1070]
  - common/common.c: fix systemd endpoint definition for inhibitor interface management [#1070]
  - common/common.c: Inhibit() et al: refactor with reopen\_sdbus\_once() and would\_reopen\_sdbus() sanity-check [#1070]
  - common/common.c: Inhibit() et al for unsupported platforms: only post "Not implemented" messages once [#1070]
  - clients/upsmon.c: refactor with init\_Inhibitor() [#1070]
  - common/common.c: Inhibit() et al: quiesce error/debug messages [#1070]
  - common/common.c: open\_sdbus\_once(): use prettier sd\_bus\_open\_system\_with\_description() for better journal logging [#1070]
  - common/common.c: open\_sdbus\_once(): only report failures once in a row [#1070]
  - UPGRADING.adoc: document systemd inhibitor interface support in NUT, and stress that older hacks for the purpose may be obsolete now [#1070]
  - clients/upsmon.c: add daemon support for OS-sleep inhibition and wake-up [#1070]
  - clients/upsmon.c: barebone structure for OS-sleep inhibition support [#1070] This commit adds support to process the systemd (later potentially equivalent) framework signals about going to sleep or waking up, to grab and release the locks which can hold up the actual start of sleep mode. Later work would focus on not shutting down because of the time jump when we wake up :)
  - common/common.c, include/common.h, m4/nut\_check\_libsystemd.m4: introduce Uninhibit() and isPreparingForSleep() methods [#1070]
  - common/common.c: comment about *attributecleanup(f)* usage [#1070]
  - m4/nut\_check\_libsystemd.m4: check for sd-bus.h auto-cleanup methods [#1070]
  - common/common.c: augment Inhibit() with a retry of D-Bus connection if a call() failed, and auto-close it on exit [#1070]
  - common/common.c: refactor Inhibit() with open\_sdbus\_once() and re-usable systemd\_bus connection [#1070]
  - common/common.c, clients/upsmon.c: annotate ends of systemd-related ifdefs
  - m4/nut\_check\_libsystemd.m4: do not check for methods delivered by newer systemd which we do not use now [#1070]
  - clients/upsmon.c: indent nested preprocessor directives (optional includes)
  - NEWS.adoc: document systemd inhibitor interface support in NUT [#1070]
  - common/common.c, include/common.h: introduce Inhibit() method [#1070] Snow-ball several libsystemd pseudo-code and real code examples.
  - configure.ac, scripts/systemd/Makefile.am: consider WITH\_LIBSYSTEMD\_INHIBITOR availability for default installation of nut-sleep.service [#1833, #1070, #2596]
  - m4/nut\_check\_libsystemd.m4: detect systemd inhibitor support (via D-Bus API) [#1070] Thanks to pointers from <https://github.com/systemd/systemd/issues/34004>
  - scripts/systemd/nut-driver-enumerator-daemon-activator.service.in, scripts/systemd/nut-driver-enumerator-daemon.service.in, scripts/systemd/nut-driver-enumerator.path.in, scripts/systemd/nut-driver-enumerator.service.in, scripts/systemd/nut-driver.target, scripts/systemd/nut-driver@.service.in, scripts/systemd/nut-monitor.service.in, scripts/systemd/nut-server.service.in, scripts/systemd/nut.target, scripts/systemd/nutshutdown.in: scripts/systemd/\*: bump © to 2024
  - NEWS.adoc, scripts/systemd/Makefile.am, scripts/systemd/nut-sleep.service: Introduce scripts/systemd/nut-sleep.service [#1833, #1070] Thanks to "Ropid" for contributing this file via <https://github.com/networkupstools/nut/issues/1833#issuecomment-2292261061>
  - m4/nut\_check\_libsystemd.m4: extend to try getting SYSTEMD\_VERSION from systemctl if pkg-config is missing [#1070]
-

- .gitignore, Makefile.am, configure.ac: configure.ac: when doing in-place builds, move config.log of the original invocation to config.log.inplace-outer
- configure.ac: comment to document the trick about "ln -sr" test
- configure.ac: comment a FIXME about TREE\_VERSION definition
- ci\_build.sh: refactor "Starting initial clean-up ... TAKING SHORTCUT", introduce CI\_REGENERATE=true to force it \* Move into a method for different BUILD\_TYPE's to share. \* Have one "rm" command for different use-cases. \* Add a new toggle to force the clean-up and regen. \* Also clean away config.h (if one remains somehow, it confuses sub-tree builds like those done for Windows).
- m4/nut\_check\_libgd.m4: generate test image to tmpfile() or stderr ... so its binary content does not pollute common log

## 2.160 2024-08-15 Jim Klimov <jimklimov+nut@gmail.com>

- configure.ac, m4/nut\_check\_libsystemd.m4: m4/nut\_check\_libsystemd.m4: check if nut\_have\_libsystemd\_inhibitor [#1070]
- scripts/fuse/README.adoc, scripts/fuse/exexcuse-nut/getattr, scripts/fuse/exexcuse-nut/read\_file, scripts/fuse/exexcuse-nut/readdir: scripts/fuse/README.adoc, scripts/fuse/exexcuse-nut/\*: separate "client-location" from "client-version" [#2591]
- scripts/fuse/README.adoc, scripts/fuse/exexcuse-nut/readdir: integrate with NIT-prepared environments [#2591]
- scripts/fuse/README.adoc: suggest use of plain umount, it works too [#2591]
- scripts/fuse/README.adoc: allow re-entrance with copy-pasted experiments (mkdir -p) [#2591]
- scripts/fuse/README.adoc: list the built excfuse binary to check it was made [#2591]
- scripts/fuse/README.adoc: clarify prerequisites for an excfuse build [#2591] These would likely become NUT optional dependencies in docs/config-prereqs.txt, if a more integrated client would be made to follow up with this idea eventually.

## 2.161 2024-08-14 Jim Klimov <jimklimov+nut@gmail.com>

- NEWS.adoc, docs/nut.dict: announce the FUSE experiment [#2591]
- scripts/fuse/README.adoc, scripts/fuse/exexcuse-nut/getattr, scripts/fuse/exexcuse-nut/read\_file, scripts/fuse/exexcuse-nut/readdir: scripts/fuse: extend excfuse-nut experiment with a /client-version pseudo-file [#2591]

## 2.162 2024-08-13 Jim Klimov <jimklimov+nut@gmail.com>

- scripts/fuse/README.adoc, scripts/fuse/exexcuse-nut/getattr, scripts/fuse/exexcuse-nut/init, scripts/fuse/exexcuse-nut/read\_file, scripts/fuse/exexcuse-nut/readdir: Introduce a scripts/fuse experiment [#2591]

## 2.163 2024-08-12 Jim Klimov <jimklimov+nut@gmail.com>

- m4/nut\_check\_libgd.m4: AX\_RUN\_OR\_LINK\_IFELSE() to check that we can actually build a graphical program Namely, that further third-party libs are available for the chosen architecture, not only the headers. Had a problem with 32/64-bit build agent that only had a binary lib\*.so set for 64-bit after an update.
  - ci\_build.sh: actually honour CANBUILD\_LIBGD\_CGI=no
  - ci\_build.sh: fix shell syntax that could confuse CANBUILD\_LIBGD\_CGI detection
  - drivers/usbhid-ups.c: upsdv\_initups(): cache testvar() outcome as exactly 0/1 [#2347] When building a complex text expression, we rely on maths in some spots.
-

**2.164 2024-08-11 Jim Klimov <jimklimov+nut@gmail.com>**

- data/driver.list.in: update about "Back-UPS BX\*\*\*\*MI Series (may need tweaks since 2023)" [#2347]
- drivers/usbhid-ups.c: clarify suggested settings for LB\+RB log flood [#2437]
- NEWS.adoc, UPGRADING.adoc, docs/nut.dict: summarize the mitigation for spurious LOWBATT/REPLACEBATT events on APC BXnnnnMI devices [#2347]

**2.165 2024-08-10 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc, drivers/bcmxcp.c, drivers/nutdrv\_atcl\_usb.c, drivers/richcomm\_usb.c, m4/ax\_c\_pragmas.m4, tools/nut-scanner/scan\_usb.c: do not actively suggest vendor(id), product(id), and serial options for bcmxcp\_usb, richcomm\_usb, nutdrv\_atcl\_usb [#1763, #1764, #1768, #2580]
- NEWS.adoc, clients/nutclient.cpp, clients/upsclient.c, clients/upslog.c, clients/upssched.c, common/common.c, common/nut-conf.cpp, common/nutstream.cpp, common/nutwriter.cpp, common/parseconf.c, drivers/apc\_modbus.c, drivers/apcsmart-old.c, drivers/apcsmart.c, drivers/bcmxcp.c, drivers/belkin-hid.c, drivers/bestups.c, drivers/blazer\_usb.c, drivers/dstate.c, drivers/e-tapro.c, drivers/hidparser.c, drivers/huawei-ups2000.c, drivers/main.c, drivers/mge-hid.c, drivers/mge-xml.c, drivers/netxml-ups.c, drivers/nut-libfreeipmi.c, drivers/nutdrv\_atcl\_usb.c, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx\_masterguard.c, drivers/openups-hid.c, drivers/powercom.c, drivers/rhino.c, drivers/richcomm\_usb.c, drivers/riello.c, drivers/solis.c, drivers/tripplite\_usb.c, m4/ax\_c\_pragmas.m4, server/netssl.c, server/sockdebug.c, server/upsd.c, tools/nut-scanner/scan\_avahi.c: Fix clang-18 warnings about switch clauses without a default label [#2588]
- include/str.h: use a more reliable definition of NUT\_STRARG doing nothing [#2585]
- m4/ax\_c\_pragmas.m4, docs/configure.txt: let `--enable-NUT_STRARG-always` setting have `auto` detection by default [#2585] Flips to "yes" for gcc-13.x (clang having issues is not proven at the moment)
- m4/ax\_c\_pragmas.m4, docs/configure.txt, UPGRADING.adoc, docs/nut.dict: introduce `configure --enable-NUT_STRARG-always` setting [#2585]

**2.166 2024-08-06 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/usbhid-ups.c: when defaulting `lbrb_log_delay_sec`, suggest also setting the `lbrb_log_delay_without_calibrating` flag [#2347]

**2.167 2024-08-05 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc, docs/nut.dict: NEWS.adoc: mention fixes for fallback `localtime_r()` and `gmtime_r()` [#1611, #2583]
- drivers/huawei-ups2000.c: adapt to fixed `gmtime_r()` when a macron in WIN32 fallbacks [#1611, #2583]
- include/timehead.h: fix hacky macro `localtime_*`() fallbacks for WIN32 builds [#2583, #1611] Partially inspired by `/mingw64/include/time.h`. NOTE: Unlike `linux\+mingw` cross-builds, the semi-native ones on Windows with MSYS2 do not enforce `_POSIX_THREAD_SAFE_FUNCTIONS` and so can lack the optional declarations in the file above.
- tools/nut-scanner/nut-scanner.c: no longer need to `#include "nut_version.h"` [#2573, #2097]
- configure.ac, include/timehead.h: check also for mere declarations of `localtime_r()` etc.
- configure.ac: report checking for lack of both decls and linkage for time methods
- configure.ac: clarify that failed `AC_CHECK_FUNCS()` are about linker
- scripts/Windows/build-mingw-nut.sh, configure.ac: promote use of `_POSIX_THREAD_SAFE_FUNCTIONS` It seems C++ builds using NUT config.h  $\Rightarrow$  timehead.h on WIN32 struggle uniquely (as C ones did not) with alleged redefinition of `localtime_r()` and `gmtime_r()` which is in fact optionally present in headers but not found by linking tests in `AC_CHECK_FUNCS()`.

- configure.ac: refactor with CODE\_TIMEINCL
- drivers/apc\_modbus.c: indent code with TABs (cosmetic)
- drivers/apc\_modbus.c: indent optional includes (cosmetic)
- tools/nutconf/nutconf-cli.cpp: indent nested preprocessor directives (include)
- common/common.c: nut\_report\_config\_flags(): refactor with describe\_NUT\_VERSION\_once() copy of the code [#2573]
- tools/nutconf/nutconf-cli.cpp: add a FIXME comment about lack of "-D" CLI option
- tools/nutconf/nutconf-cli.cpp: add a version printout to Usage (both help and new standalone option) [#2573]
- tools/nutconf/nutconf-cli.cpp: use just the xbasename() of prog name [#2573]
- drivers/upsdrvctl.c: refactor to common handling of "-V" CLI arg and use of print\_banner\_once() [#2375]
- drivers/main.c: upsdrv\_banner(): rearrange the main version string to follow common NUT pattern [#2573]
- tools/nut-scanner/Makefile.am, tools/nut-scanner/nut-scanner.c: tools/nut-scanner/nut-scanner.c: refactor to know its "prog-name" and pass it to print\_banner\_once() and show\_usage() [#2573] Also update tools/nut-scanner/Makefile.am to have the symbols in libnutscan
- tools/nut-scanner/nut-scanner.c: refactor to use print\_banner\_once() with its copy of describe\_NUT\_VERSION\_once() instead of large code chunk in the program [#2573]
- common/common.c: revise print\_banner\_once() to use describe\_NUT\_VERSION\_once() rather than directly UPS\_VERSION [#2573]
- common/common.c, include/common.h: introduce a common method for NUT programs to describe\_NUT\_VERSION\_once() [#2573]
- drivers/main.c: avoid printing upsnotify() warnings when just querying program versions [#2573]
- clients/upsc.c, clients/upscmd.c, clients/upslog.c, clients/upsmon.c, clients/upsrw.c, drivers/main.c, scripts/Windows/wininit.c, server/upsd.c, tools/nut-scanner/nut-scanner.c: Revise programs to print\_banner\_once(), use same style of comment for "-V" handling [#2573]
- clients/upsc.c, clients/upscmd.c, clients/upslog.c, clients/upsmon.c, clients/upsrw.c, server/upsd.c: Revise program descriptions in help(), use same pattern for message layout there [#2573]
- common/common.c, include/common.h: introduce a common method for NUT programs to print\_banner\_once() [#2573]
- NEWS.adoc: Fix uses of banner\_is\_disabled() to not preclude CLI -V printouts [#2573]

## 2.168 2024-08-02 Jim Klimov <jimklimov+nut@gmail.com>

- tools/nut-scanner/scan\_usb.c: nutscan\_scan\_usb(): avoid fatal\_with\_errno(), emit upsdebug\_with\_errno(0, ...) and return NULL [#2575] Commented away idea: assume nutscan\_avail\_usb=0 if we failed to init or malloc? TODO: This might preclude cleanly unloading the library, and also the problem of one loop cycle might not repeat on another.
- tools/gitlog2version.sh: in debug, report also SEMVER [#1949]

**2.169 2024-08-01 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/upsdrvsvctcl/upsdrvsvctcl.in, docs/man/upsdrvsvctcl.txt: complete the "upsdrvsvctcl status" feature [#2567]
- scripts/upsdrvsvctcl/upsdrvsvctcl.in, docs/man/upsdrvsvctcl.txt: add an option to display binary version (and fix the script one in help) [#2567]
- scripts/upsdrvsvctcl/upsdrvsvctcl.in: make path to UPSDRVCTL a variable, like ENUMERATOR is used [#2567]
- NEWS.adoc: new dstate LOGOUT command [#2567]
- drivers/upsdrvquery.c: upsdrvquery\_close(): track if we loggedOut and so not complain about disconnection faults [#2567]
- drivers/upsdrvctl.c: status: revise return values of checkprocname() vs. sendsignalpid(), unite via pidAlive [#2567]
- tools/gitlog2version.sh: comment why we repeat TRUNK candidate branches, and add master in the end too [#1949]
- drivers/dstate.c, drivers/dstate.h: drivers/dstate.{c,h}: err on the safe side with LOGOUT, and only mark the connection - close later [#2567]
- server/netmisc.c: update net\_help()
- drivers/upsdrvquery.c: upsdrvquery\_close(): take advantage of the new LOGOUT command [#2567]
- drivers/dstate.c, docs/sock-protocol.txt: introduce a LOGOUT command [#2567] Now that the driver Unix socket / Windows named pipe connections can come and go (sibling drivers, upsdrvctl status...) it is not pretty to see logged messages about an unexpected connection loss. Having it coincide with a LOGOUT is better for troubleshooting.
- drivers/upsdrvctl.c, docs/man/upsdrvctl.txt: "status": detect a RUNNING or not program using PID from **either** PID file or socket protocol [#2567]
- docs/man/upsdrvctl.txt: add an example of "list" with hidden banner [#2567]
- common/common.c: parsepid(): set errno in case of errors [#2567]
- drivers/mge-hid.c: add Eaton 9En000 models "iau" suffix, and 9E3000 "ixl"/"ixlau" [#2562] Per <https://github.com/networkupstools/-nut/pull/2571#issuecomment-2261450468>
- drivers/mge-hid.c: add Eaton 9En000 models "iau" suffix, and 9E3000 "ixl"/"ixlau" [#2562] Per <https://github.com/networkupstools/-nut/pull/2571#issuecomment-2261450468>

**2.170 2024-08-01 Jim Klimov <jim@jimklimov.com>**

- scripts/upsdrvsvctcl/upsdrvsvctcl.in: adjust SVC\_NAME\_WIDTH to framework type too [#2567]
- scripts/upsdrvsvctcl/upsdrvsvctcl.in: allow caller to customize ENUMERATOR and UPSDRVCTL when testing [#2567]

**2.171 2024-07-31 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/mge-hid.c: add Eaton 9E1000\* models, and "ir" suffix for rack [#2562] According to <https://github.com/networkupstools/-nut/pull/2571#issuecomment-2261337602>
  - drivers/mge-hid.c: add Eaton 9E1000\* models, and "ir" suffix for rack [#2562] According to <https://github.com/networkupstools/-nut/pull/2571#issuecomment-2261337602>
  - drivers/libusb0.c: libusb\_open(): try to re-fetch curDevice→Vendor, Product, Serial if NULL, after claiming it by other criteria [#2562]
  - drivers/libusb0.c: libusb\_open(): comment about if (!callback) {...} check
  - drivers/libusb1.c: nut\_libusb\_open(): try to re-fetch curDevice→Vendor, Product, Serial if NULL, after claiming it by other criteria [#2562]
-

- drivers/libusb1.c: nut\_libusb\_open(): comment about `if (!callback) { ... } check`
- drivers/mge-hid.c: rephrase the presumed 9E2000\*i\* model [#2562] I did not find any actual mentions of plain "9E2000" without an "i", only these: <https://www.eaton.com/tr/en-gb/skuPage.9E2000I.html> Also prepared for "9E3000i" models while here.
- tools/gitlog2version.sh: actively discover a newest known NUT\_VERSION\_GIT\_TRUNK if not provided explicitly [#1949]
- drivers/upsdrvctl.c: fix use of nut\_sendsignal\_debug\_level; add nut\_upsdrvquery\_debug\_level hushing around upsdrvquery\_connect\_attempt [#2567]
- drivers/upsdrvquery.c: upsdrvquery\_connect(): fix pidfn⇒sockname var naming
- drivers/upsdrvctl.c, docs/man/upsdrvctl.txt: status: print a header with column names [#2567]
- docs/man/upsdrvctl.txt: status: clarify PF\_PID negative values [#2567]
- docs/man/upsdrvctl.txt: status: clarify print-out syntax just after the example [#2567]
- conf/nut.conf.sample: prepare to export envvars which are NUT program configuration tweaks
- docs/man/nut.conf.txt: update IMPORTANT NOTES
- conf/nut.conf.sample: update heading comments (IMPORTANT NOTES)
- drivers/upsdrvctl.c: status\_driver(): no need to check for NULLness of conn→buf [#2567]
- drivers/upsdrvctl.c: status\_driver(): upsdrvquery\_close(conn) after use [#2567]
- scripts/upsdrvsvctl/upsdrvsvctl.in, docs/man/upsdrvsvctl.txt: provide a basic "status" operation [#2567]
- drivers/upsdrvctl.c, docs/man/upsdrvctl.txt: complete "upsdrvctl status" with socket protocol queries [#2567]
- common/common.c, include/common.h: refactor parsepidfile() out of sendsignalfn()
- drivers/dstate.c, docs/sock-protocol.txt, docs/nut.dict: implement DUMPVALUE and DUMPSTATUS queries
- drivers/dstate.c, docs/sock-protocol.txt, docs/nut.dict: implement GETPID query
- drivers/dstate.c: refactor st\_tree\_dump\_conn\_one\_node() out of st\_tree\_dump\_conn() [#2567]

## 2.172 2024-07-30 Jim Klimov <jimklimov+nut@gmail.com>

- docs/maintainer-guide.txt: note bumping wikipedia article
  - NEWS.adoc, docs/man/upsdrvctl.txt, drivers/upsdrvctl.c: drivers/upsdrvctl.c: add "status" operation (initially trial skeleton) [#2567]
  - drivers/upsdrvctl.c: only log suggestions about exec debugging if we would start or shutdown
  - drivers/upsdrvctl.c: comment why pidfn is not used in apparent WIN32 codepaths
  - tests/NIT/nit.sh: introduce NUT\_FOREGROUND\_WITH\_PID=true tweak
  - tools/gitlog2version.sh: Set exit code based on availability of default version info data point [#1949]
  - tools/gitlog2version.sh: getver\_git(): "return 1" if we fail to discover DESC or BASE data [#1949]
  - tools/gitlog2version.sh: report if Git-based version info discovery failed and we fall back [#1949]
  - tools/gitlog2version.sh: only consider BASE after we get DESC successfully (and abort if there is no common BASE) [#1949]
  - tools/gitlog2version.sh: refactor with a separate NUT\_VERSION\_GIT\_ALWAYS\_DESC toggle envvar [#1949]
  - server/netget.c: get\_var\_server(): refer to PACKAGE\_URL (and hard-coded "https://www.networkupstools.org/" if PACKAGE\_URL points completely elsewhere) [#1949] Tested with "GET VAR dummy server.info" command
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- server/netmisc.c: net\_ver(): refer to PACKAGE\_URL (and hard-coded "https://www.networkupstools.org/" if PACKAGE\_URL points completely elsewhere) [#1949] Tested with "VER" command
- tools/gitlog2version.sh: default PACKAGE\_URL with "www" in the string [#1949]
- clients/upslog.c, clients/upsmon.c, drivers/main.c, server/upsd.c: use banner\_is\_disabled() checking [#1789 vs. #316]
- drivers/upsdrvctl.c, docs/man/upsdrvctl.txt: use banner\_is\_disabled() checking [#1789 vs. #316]
- NEWS.adoc, UPGRADING.adoc, common/common.c, conf/nut.conf.sample, include/common.h: Introduce NUT\_QUIET\_INIT\_BA envvar support and banner\_is\_disabled() common method [balancing issues #1789 vs. #316]
- conf/nut.conf.sample: document NUT\_QUIET\_INIT\_SSL missed before [#1662]
- conf/nut.conf.sample, docs/man/nut.conf.txt: document NUT\_QUIET\_INIT\_UPSNOTIFY missed before [#2136]
- conf/nut.conf.sample, docs/man/nut.conf.txt: document NUT\_DEBUG\_PID missed before [#2118]
- drivers/upsdrvctl.c: main(): revise reporting of command\_name in debug logs [#2567] ...and avoid a potential argv array overflow (or at least useless NULL reporting) along the way
- drivers/upsdrvctl.c: send\_all\_drivers(): drop redundant "ups = upstable" assignments
- NEWS.adoc, docs/man/upsdrvctl.txt, drivers/upsdrvctl.c: drivers/upsdrvctl.c: add "list" operation [#2567]

## 2.173 2024-07-29 Jim Klimov <jimklimov+nut@gmail.com>

- docs/maintainer-guide.txt: suggest also use of VERSION\_FORCED and VERSION\_FORCED\_SEMVER files in our release rituals, we have support anyway and want to test it in-vivo [#1949]
  - NEWS.adoc, docs/man/usbhid-ups.txt, docs/nut.dict, drivers/usbhid-ups.c: drivers/usbhid-ups.c, docs/man/usbhid-ups.txt: introduce lbrb\_log\_delay\_sec et al [#2347]
  - drivers/usbhid-ups.c: track start and end timestamps of calibration [#2347]
  - NEWS.adoc, docs/new-drivers.txt, drivers/dstate.c, drivers/dstate.h: drivers/dstate.{c,h}, docs/new-drivers.txt, NEWS.adoc: introduce status\_get()
  - drivers/usbhid-ups.c: avoid "\n" starting an upsdebugx() message That "\n" gets printed as "#012"
  - NEWS.adoc: document the recent fixes for apcsmart [#704]
  - drivers/apcsmart.c: upsdrv\_updateinfo(): if dstate\_is\_stale, log if we fix it [#704]
  - drivers/apcsmart.c: upsdrv\_updateinfo(): if dstate\_is\_stale, try to reconnect every 60 retry attempts [#704]
  - drivers/apcsmart.c: upsdrv\_updateinfo(): if dstate\_is\_stale, try to flush the incoming data buffer [#704]
  - drivers/apcsmart.c: upsdrv\_updateinfo(): if dstate\_is\_stale, retry slowly [#704]
  - drivers/apcsmart.c: update upsdebugx() to report func where they did not
  - NEWS.adoc, docs/nut.dict, drivers/apcsmart.c: drivers/apcsmart.c: constrain strcpy() ⇒ strncpy() NOTE: Further improvement is possible in that strncpy() does not guarantee a NUL byte in the end of resulting string (if input is too long, it is only truncated).
  - drivers/apcsmart.c: revise comments and log messages
-



**2.174 2024-07-28 Jim Klimov <jimklimov+nut@gmail.com>**

- Makefile.am: distribute VERSION\_FORCED and/or VERSION\_FORCED\_SEMVER if present [#1949]
- docs/maintainer-guide.txt: clarify use of annotated Git tags [#1949]
- docs/maintainer-guide.txt: clarify for tools/gitlog2version.sh now in the loop [#1949]
- drivers/snmp-ups.h: neuter also PACKAGE\_URL if present, to avoid conflict with net-snmp-config.h [#1949]
- tools/nut-scanner/scan\_snmp.c: neuter also PACKAGE\_URL if present, to avoid conflict with net-snmp-config.h [#1949]
- NEWS.adoc, data/driver.list.in, drivers/mge-hid.c: drivers/mge-hid.c, NEWS.adoc: try to recognize Eaton 9E model and info [#1925] Also handle "unknown 2000" assuming it is a mis-read "Eaton 9E 2000(i?)" which refused to tell libusb its vendor/product/serial strings. This may be the answer to such issues as #1925, #2380 (re-opened), #2492

**2.175 2024-07-27 Jim Klimov <jimklimov+nut@gmail.com>**

- .gitignore, UPGRADING.adoc, ci\_build.sh, tools/gitlog2version.sh: tools/gitlog2version.sh: allow NUT\_VERSION\_FORCED\_SEMVER for some distros [#1949] Test: `:: ./clients/upsmon -DDV Network UPS Tools upsmon 2.8.2.404.365-769-g96f0c9cb3 0.000000 [D1] Network UPS Tools version 2.8.2.404.365-769-g96f0c9cb3 (development iteration after 1.1.1) built with clang version 16.0.6...`
- .gitignore, UPGRADING.adoc, ci\_build.sh, tools/gitlog2version.sh: tools/gitlog2version.sh, ci\_build.sh: allow VERSION\_FORCED for some distros [#1949]
- tools/gitlog2version.sh: update comment [#1949]
- Makefile.am, autogen.sh, configure.ac, include/Makefile.am, tools/gitlog2version.sh: tools/gitlog2version.sh et al: change configurable vars to NUT\_VERSION\_\* namespace [#1949]
- docs/config-prereqs.txt: kudos to Termux
- autogen.sh: kill obsolete nut\_version.h during regen [#1949]
- autogen.sh, configure.ac: configure.ac: drop square brackets around macro in AC\_INIT [#1949] Per suggestion from <https://github.com/NixOS/nix/issues/5832>

**2.176 2024-07-26 Jim Klimov <jimklimov+nut@gmail.com>**

- tools/gitlog2version.sh: only PREFER\_GIT blindly if abs\_top\_srcdir is a git workspace [#1949]
  - tools/nut-scanner/nut-scanner.c: hush compiler warnings about unreachable code paths with NUT\_VERSION\_IS\_RELEASE macro decisions [#1949]
  - common/common.c: hush compiler warnings about unreachable code paths with NUT\_VERSION\_IS\_RELEASE macro decisions [#1949]
  - autogen.sh: update comment about AC\_INIT complaints for m4\_esyscmd\_s() [#1949]
  - configure.ac: update comment about AC\_INIT complaints for m4\_esyscmd\_s() [#1949]
  - tools/gitlog2version.sh: provide a fallback for older git which does not know how to --exclude [#1949]
  - ci\_build.sh: check\_gitignore(): define FILE\_GLOB\_EXCLUDE differently [#1949]
  - common/common.c: convert nut\_report\_config\_flags() to more definitive behavior with NUT\_VERSION\_IS\_RELEASE flag and NUT\_VERSION\_SEMVER\_MACRO string [#1949]
  - tools/nut-scanner/nut-scanner.c: use NUT\_VERSION\_IS\_RELEASE and NUT\_VERSION\_SEMVER\_MACRO when printing version [#1949] Note this is a custom printer, separate from common.c
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- common/common.c, include/Makefile.am: include/Makefile.am: nut\_version.h: inject also NUT\_VERSION\_SEMVER\_MACRO and NUT\_VERSION\_IS\_RELEASE [#1949]
- configure.ac: introduce NUT\_SOURCE\_GITREV\_IS\_RELEASE and NUT\_SOURCE\_GITREV\_SEMVER [#1949]
- ci\_build.sh: update suggestion about Homebrew envvar setting [#2522]
- drivers/libshut.c: shut\_control\_msg(): restrict memcpy() amount Avoid warning: libshut.c:1296:25: error: *memcpy* forming offset [11, 17] is out of the bounds [0, 11] of object *shut\_pkt* with type *unsigned char[11]* [-Werror=array-bounds=]
- configure.ac: set PACKAGE\_TARNAME and PACKAGE\_URL verbatim via AC\_INIT() [#1949]
- docs/config-prereqs.txt, docs/nut.dict: clarify envvar pre-sets for MacOS/Homebrew [#2522, #2555]
- common/common.c: compareprocname(): comment about libtool-wrapped developer builds [#2463]
- configure.ac: revise injection of "-O0" into debug-able C code builds on some platforms
- autogen.sh: add line separators around big blocks of scripted messages
- ci\_build.sh: check\_gitignore(): define FILE\_GLOB\_EXCLUDE differently [#1949]

### 2.177 2024-07-25 Jim Klimov <jimklimov+nut@gmail.com>

- configure.ac: clarify further work possible about NUT versioning support [#1949]
- NEWS.adoc, docs/nut.dict, UPGRADING.adoc: announce NUT development-friendly versioning scheme [#1949]
- tools/Makefile.am: EXTRA\_DIST the gitlog2version.sh helper [#1949]
- .gitignore, Makefile.am, autogen.sh, ci\_build.sh, tools/gitlog2version.sh: tools/gitlog2version.sh et al: add support for (taballed) VERSION\_DEFAULT file [#1949]
- configure.ac: provide m4\_esyscmd\_s for builds with older autotools releases [#1949]
- configure.ac: refactor to use tools/gitlog2version.sh directly in AC\_INIT without hacks [#1949]
- tools/gitlog2version.sh: refactor to share more code; introduce PREFER\_GIT toggle [#1949]
- tools/gitlog2version.sh: add WANT\_VER query support, 3-digit SEMVER, and URL, and IS\_RELEASE [#1949]
- ci\_build.sh: check\_gitignore(): introduce FILE\_GLOB\_EXCLUDE and handle FILE\_GLOB allowing for multi-token values

### 2.178 2024-07-24 Jim Klimov <jimklimov+nut@gmail.com>

- configure.ac: set PACKAGE\_TARNAME and PACKAGE\_URL [#1949]
- configure.ac, include/Makefile.am: use consistently the tools/gitlog2version.sh for version info [#1949]
- tools/gitlog2version.sh: introduce new helper script to parse NUT structured version from Git (if available) [#1949]
- m4/nut\_check\_aspell.m4: avoid "exec — 2>&1" trick, not all shells like it
- configure.ac: avoid square brackets in m4 script [#1949]

### 2.179 2024-07-23 Jim Klimov <jimklimov+nut@gmail.com>

- docs/sock-protocol.txt: update with examples of propagated flag names [#266]
  - server/netset.c: comment about true meaning of "!val" clause [#266]
  - docs/net-protocol.txt: update examples of invalid numbers [#265]
  - server/netget.c: get\_type(): reword logged message for assuming a NUMBER [#266]
  - UPGRADING.adoc: document NUT\_DEBUG\_SYSLOG and its possible impact on future packaging [#2394]
-

**2.180 2024-07-22 Jim Klimov <jimklimov+nut@gmail.com>**

- server/netget.c: get\_type(): report assuming UPS[%s] variable %s is a NUMBER to help catch code that did not set the flags [#266]
- server/sstate.c: fix upsdebugx() and upslogx() calls to refer to *func* and not hard-coded strings [#266]
- drivers/dstate.c: fix upsdebugx() and upslogx() calls to refer to *func* and not hard-coded strings [#266]
- common/state.c: fix upsdebugx() and upslogx() calls to refer to *func* and not hard-coded strings [#266] This is more streamlined and also fixes some mis-attributed messages (evolution? copy-paste?)
- server/netset.c: set\_var(): trace-log why this method errors out [#266]
- drivers/main.c: comment about immutable (or not) driver/default/override dstate values [#266]
- common/state.c: log about not-updating an immutable value [#266]
- clients/upsclient.c: when host is known NULL, report that directly, no need for NUT\_STRARG() [#2512]
- common/common.c: compareprocname(): fix basename comparison (copy-paste typo) [#2463]
- common/common.c: refactor sendsignalpid() to check checkprocname\_ignored() and getprocname(pid) once for several tests against its value, and report it in the end [#2463]
- include/common.h, common/common.c: refactor apart checkprocname\_ignored() from checkprocname() and compareprocname() [#2463]
- include/common.h, common/common.c: refactor apart compareprocname() from checkprocname() [#2463]
- conf/hosts.conf.sample, conf/nut.conf.sample, conf/ups.conf.sample, conf/upsd.conf.sample, conf/upsd.users.sample, conf/upsmon.conf.sample, conf/upssched.conf.sample.in, conf/upsset.conf.sample, docs/man/hosts.conf.txt, docs/man/nut.conf.txt, docs/man/ups.conf.txt, docs/man/upsd.conf.txt, docs/man/upsmon.conf.txt, docs/man/upssched.conf.txt, docs/man/upsset.conf.txt: docs/man/.conf.txt, conf/.sample\*: note about ASCII-only contents of parsed config files [#2543]
- docs/nut.dict: update docs/nut-names.txt with items defined by 42ITy NUT fork [#2339]
- NEWS.adoc: update docs/nut-names.txt with items defined by 42ITy NUT fork [#2339]
- drivers/usbhid-ups.c, NEWS.adoc: for devices with VendorID=0x06da (Phoenixtec) suggest trying nutdrv\_qx [#334]

**2.181 2024-07-20 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc: document fix of prefix for custom distchecks [#2541]
- Makefile.am: re-define "prefix" to help both native distcheck and its sub-make brethren pass [#2541]

**2.182 2024-07-20 Alejandro González <me@alegon.dev>**

- drivers/cps-hid.c: support ups.firmware and input.sensitivity These variables were tested to work fine on a CP1350EPFCLCD UPS.
- drivers/cps-hid.c: use consistent indentation in recently added code

**2.183 2024-07-19 Jim Klimov <jimklimov@gmail.com>**

- Makefile.am, scripts/Makefile.am, scripts/udev/Makefile.am: use AM\_MAKEFLAGS when calling \$(MAKE)
  - scripts/augeas/Makefile.am: EXTRA\_DIST lens templates (including the generated nutupsconf.aug.in) if not installing as DATA
  - Makefile.am: pass DISTCHECK\_CONFIGURE\_FLAGS explicitly to sub-makes for different distcheck scenarios [#2541]
  - ci\_build.sh: update log-trace messages about default-tgt:\* running a sequential or parallel build
  - ci\_build.sh: update log-trace messages about Homebrew
-

**2.184 2024-07-19 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc: update for cps-hid bump [#2540]
- drivers/cps-hid.c: tone down the version bump [#2540]
- docs/config-prereqs.txt, docs/nut.dict: docs/config-prereqs.txt: update MacOS build agent setup [#2522]

**2.185 2024-07-18 Jim Klimov <jimklimov@gmail.com>**

- Jenkinsfile-dynamatrix: do not build "pure autoconf default" scenario on MacOS\+Homebrew
- docs/config-prereqs.txt: update about NUT CI Jenkins agent on MacOS

**2.186 2024-07-18 Jim Klimov <jimklimov+nut@gmail.com>**

- server/upsd.c: fix build on systems without IPV6\_V6ONLY
- configure.ac, tools/nut-scanner/nut-scanner.c: tools/nut-scanner/nut-scanner.c: update build for systems that lack all getifaddr() related methods [#2244]
- common/str.c, configure.ac, include/nut\_float.h: Provide fallback strtod() for platforms where it is missing
- include/timehead.h, configure.ac, common/Makefile.am, common/timegm\_fallback.c: add a fallback timegm()
- configure.ac: refactor discovery of SEMLIBS (may be needed to AX\_RUN\_OR\_LINK\_IFELSE() just a bit below) [#2522]
- tools/nut-scanner/nut-scan.h, configure.ac: sem\_open() usage needs O\_CREAT header [#2522]
- clients/upssched.c: indent preprocessor clauses
- tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http.c: tools/nut-scanner/scan\_\*: typo fix from copy-pasted %i⇒PRIuSIZE [#2522]
- tools/nut-scanner/nut-scanner.c: include nut\_stdint.h always, not only in threaded builds [#2522]

**2.187 2024-07-17 Jim Klimov <jimklimov@gmail.com>**

- Makefile.am: check-scripts-syntax: fix to ignore old /bin/bash and try something else if possible MacOS ships 3.x and does not grok our syntax; their HomeBrew version is ok.
  - configure.ac, tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-init.c, tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http.c: tools/nut-scanner/\*: add ability to use named semaphores [#2522]
  - configure.ac: add a sem\_open() detector of named semaphore support [#2522]
  - configure.ac: try to run sem\_init() detector to see if it is usable [#2522] Should fail e.g. on MacOS where it is present in headers but not implemented and throws deprecation warnings which our compile\+link(+run) check can use to rule out the support.
  - docs/config-prereqs.txt, docs/nut.dict: docs/config-prereqs.txt: note temurin JDK installation in MacOS/HomeBrew section
  - docs/config-prereqs.txt: fix typo in NetBSD section
-

**2.188 2024-07-17 Jim Klimov <jimklimov+nut@gmail.com>**

- tools/nut-scanner/nut-scanner.c: bump RESERVE\_FD\_COUNT for NetSNMP use of files [#2511]
- m4/nut\_check\_libusb.m4: differentiate native and cross mingw builds, they vary in preferences
- NEWS.adoc: when cross-building with a non-cross pkg-config program, neuter its PKG\_CONFIG\_LIBDIR
- docs/Makefile.am: adjust to possibility of repeated date\+author title lines [#2510] While we group by those (by default, overridable) when generating the ChangeLog, we ignore the e-mail for comparisons — and different signatures can matter!
- m4/nut\_check\_pkgconfig.m4: when cross-building with a non-cross pkg-config program, neuter its PKG\_CONFIG\_LIBDIR Imported from wxWidgets project; their license is LGPL-based with extra permissions: <https://github.com/wxWidgets/wxWidgets/blob/master/docs/licence.txt>
- m4/nut\_check\_pkgconfig.m4: report PKG\_CONFIG\_PATH and pkg-config --variable pc\_path pkg-config for troubleshooting

**2.189 2024-07-17 Alejandro González <me@alegon.dev>**

- data/driver.list.in, drivers/cps-hid.c: drivers/cps-hid.c: support variables available on CP1350EPFCLCD UPS

**2.190 2024-07-16 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc, configure.ac, docs/nut.dict, include/Makefile.am, include/nut\_bool.h, m4/nut\_check\_bool.m4, tests/.gitignore, tests/Makefile.am, tests/nutbooltest.c: configure.ac, m4/nut\_check\_bool.m4, include/nut\_bool.h, tests/nutbooltest.c et al: introduce a NUT\_CHECK\_BOOL scriptlet and a header with nut\_bool\_t type [#1176] Chose to use a unique type name to avoid conflicts with third-party headers which deliver a bool\_t (currently commonly hacked into many NUT sources). Using lower-cased true and false values, hoping for maximum compatibility with C99 and newer language standards (if the compilers do implement them on whatever obscure platform NUT gets built on, and then our new nut\_bool\_t definition can be just an alias for what the language gives us). A test case was added to make sure it behaves as expected on different systems. Converting the sources from their custom type definitions and usages would be a separate step.
- drivers/bcmxcp.c, drivers/belkin-hid.c, drivers/isbmex.c, drivers/libhid.c, drivers/powercom.c, drivers/powerp-bin.c, drivers/powerp-txt.c, drivers/tripplite.c, drivers/tripplite\_usb.c: drivers/\*.c: switch to #include "nut\_float.h" instead of direct <math.h> and/or <float.h> [#1176]
- tools/nut-scanner/scan\_snmp.c: cosmetic fixes, reconcile with DMF branch
- Makefile.am, NEWS.adoc, UPGRADING.adoc: for ChangeLog generation from git metadata, default to HANGELOG\_REQUIRE\_G [#2510]
- tools/gitlog2changelog.py.in: fixup! tools/gitlog2changelog.py.in: cosmetic fixes
- tools/gitlog2changelog.py.in: support CHANGELOG\_REQUIRE\_GROUP\_BY\_DATE\_AUTHOR mode [#2510]
- tools/gitlog2changelog.py.in: cosmetic fixes
- tools/gitlog2changelog.py.in: comment about possible interleaved date\+author entries [#2510]
- docs/Makefile.am: "doc" target as part of "all" is not alone there [#2510]
- docs/Makefile.am: actually do fail with ChangeLog.html-contentchecked recipe hits [#2510] ... except for when we deliberately generated nothing and report it in the document

**2.191 2024-07-15 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/Makefile.am: try to make sure we only build ChangeLog.adoc once (or keep the first built copy in a parallel fanout) [#2510]
- docs/Makefile.am: clarify the message about DOC-CHANGELOG-GENERATE-WRAPPER to differentiate it better from the real build [#2510]
- README.adoc: avoid double-dash in the TIP block, this somehow breaks PDF generation
- README.adoc: make "NUT GitHub Star History Chart" visible only in GitHub/HTML auto-rendering but not in static PDF docs
- docs/nut.dict, docs/man/hwmon\_ina219.txt: update for OI aspell dictionaries
- README.adoc: reword the GitHub stars image
- clients/Makefile.am: dlname\_filter(): use a shell function to avoid mixing backticks and double-quotes (upsets ksh) [#2431]
- tools/nut-scanner/nutscan-init.c, tools/nut-scanner/Makefile.am, NEWS.adoc: use client/libupsclient-version.h for SOFILE\_LIBUPSC [2431]
- clients/Makefile.am, clients/.gitignore: generate a client/libupsclient-version.h from libtool information file [2431]
- tools/nut-scanner/Makefile.am, NEWS.adoc: bump "minor" semver component [2511, 2431, 2450 et al] Earlier bump went to "patch" component, but here we actually have an API expansion (and more exported symbols), so the more important component should be bumped.
- tools/nut-scanner/nut-scanner.c: count auto-selected subnets, loudly warn if none were chosen [2244]
- tools/nut-scanner/nut-scan.h: minor typo fix in comment
- tools/nut-scanner/nutscan-init.c, include/nut\_platform.h, m4/ax\_realpath\_lib.m4: move definition of SOEXT to the header [2431] This would allow the multiplatform-aware library-picking logic to be used elsewhere (e.g. DMF) eventually.
- drivers/libhid.c, drivers/libhid.h: drivers/libhid.{c,h}: clarify "NUT HID Library - User API" in file headings
- clients/upsclient.c, clients/upsclient.h, clients/upsmon.c, common/nutwriter.cpp, drivers/apc-mib.c, drivers/hwmon\_ina219.c, drivers/libhid.c, drivers/libhid.h, drivers/masteguard.c, drivers/mge-utalk.h, drivers/microdowell.c, drivers/nutdrv\_qx.c, drivers/usbhid-ups.c, include/nut\_platform.h, include/parseconf.h, server/netssl.c, server/nut\_ctype.h, tools/nut-scanner/nut-scanner.c: \*.{c,h}: Revise indentation of nested preprocessor clauses/code - vol.2 Conform to NUT code style guide, and satisfy pre-processors that insist on "traditional" code layout by default (hash sign must start the line for them).
- docs/config-prereqs.txt: for platforms that offer a choice of python2/3 package names, separate its installation sample from the big block of unambiguous packages [2467]
- m4/ax\_realpath\_lib.m4, tools/nut-scanner/nutscan-init.c: add HP-UX \*.sl file name patterns into the loop [2431]

**2.192 2024-07-12 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/Makefile.am: if remaking ChangeLog.html due to failed content check, remove the faulty file [2510]
  - docs/Makefile.am: ChangeLog.html-contentchecked: no dependencies, avoids (re-)generation and log messages [2510]
  - NEWS.adoc, UPGRADING.adoc, docs/man/usbhid-ups.txt, docs/nut.dict, drivers/powercom-hid.c, drivers/usbhid-ups.c: drivers/powercom-hid.c, docs et al: add powercom\_sdcmd\_byte\_order\_fallback to send shutdown/stayoff in old byte order [2480]
  - docs/Makefile.am: make a retry of ChangeLog.html more visible [2510]
  - docs/Makefile.am: avoid lots of noise about symlinks to prep-src-docs
  - docs/Makefile.am: avoid unbalanced double-quotes inside backticks [2510]
  - tests/Makefile.am: avoid "\$\" which BSD make does not always resolve
-

- scripts/python/Makefile.am: avoid "\$\" which BSD make does not always resolve [#2529]
- scripts/Solaris/Makefile.am: avoid "\$\" which BSD make does not always resolve
- docs/Makefile.am: use ChangeLog.html-contentchecked to retry building a broken document (once) [#2510]
- .gitignore, docs/Makefile.am: docs/Makefile.am: turn ChangeLog.html-contentchecked into a standalone recipe [#2510]
- docs/Makefile.am: sanity-check html-single ChangeLog.html - report it as FAILED only once, and list the current size etc. [#2510]
- scripts/Windows/build-mingw-nut.sh: do not complain so loudly about missing optional cgi dir
- scripts/Windows/build-mingw-nut.sh: check the built docs [#2510]
- docs/Makefile.am: report the amount of times the first/second/last entries were seen (if not 2) [#2510]
- docs/Makefile.am: sanity-check html-single ChangeLog.html for presence of a few key entries (exactly once) [#2510]
- ci\_build.sh, scripts/Windows/build-mingw-nut.sh: consistently report "configure phase complete" and use of PARMAKE\_FLAGS [#2510] Note that scripted WIN32 cross-build currently is sequential-only and only with the make from PATH.

### 2.193 2024-07-11 Jim Klimov <jimklimov+nut@gmail.com>

- scripts/python/Makefile.am: revise \*.po ⇒ \*.mo generation [#2529]
- scripts/valgrind/.valgrind.sup: sem\_open is broken in some libc implementations [#2511] Per <https://forums.freebsd.org/-threads/named-semaphore-uninitialized-bytes.84850/> apparently BSD libc and GLibc at least do suffer
- scripts/valgrind/.valgrind.sup, tools/nut-scanner/Makefile.am, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-display.c, tools/nut-scanner/nutscan-ip.c, tools/nut-scanner/nutscan-serial.c, tools/nut-scanner/scan\_avahi.c, tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_nut\_simulation.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_usb.c, tools/nut-scanner/scan\_xml\_http.c: scripts/valgrind/.valgrind.sup: update titles for libssl suppressions
- tools/nut-scanner/nutscan-init.c, tools/nut-scanner/scan\_avahi.c, tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_usb.c, tools/nut-scanner/scan\_xml\_http.c: tools/nut-scanner/scan\_\*.c: reconcile coding style some more [#2511]
- tools/nut-scanner/scan\_xml\_http.c: nutscan\_scan\_xml\_http\_thready(): revise trace-logging and comment markup [#2511]

### 2.194 2024-07-10 Jim Klimov <jimklimov+nut@gmail.com>

- tools/nut-scanner/scan\_snmp.c, scripts/valgrind/.valgrind.sup: constrain warnings about library methods [#2511]
  - tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_avahi.c, scripts/valgrind/.valgrind.sup: constrain warnings about library methods [#2511]
  - tools/nut-scanner/scan\_snmp.c, scripts/valgrind/.valgrind.sup: constrain libnetsnmp leak reports [#2511] It seems that although `init_snmp()` is called once, every use of the library initializes some data which it then does not release, at least on the test system here.
  - tools/nut-scanner/scan\_xml\_http.c: close broadcast socket too, avoid FD leak [#2511]
  - tools/nut-scanner/scan\_nut.c: list\_nut\_devices\_thready(): free allocations more reliably [#2511]
  - tools/nut-scanner/scan\_snmp.c: track nut\_initialized\_snmp to only `init_snmp()` once per library load [#2511]
  - tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c: tools/nut-scanner/scan\_\*.c: drop remaining usage of `WSAS-tartup()` overlooked before
  - tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http.c: tools/nut-scanner/scan\_\*.c: initialize "stwS" and "stwST" to better track semaphore usage in debugger
-

- tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-init.c, tools/nut-scanner/scan\_avahi.c, tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_usb.c, tools/nut-scanner/scan\_xml\_http.c: tools/nut-scanner/\*.c: refactor nutscan\_free() to actively lt\_dlclose() the loaded library modules [#2511] Avoid some memory leak reports
- common/common.c: nut\_prepare\_search\_paths(): avoid an FD leak, and comment what we do about "dirname" with and without realpath() support
- Makefile.am, NEWS.adoc, docs/developers.txt, docs/nut.dict, scripts/Makefile.am, scripts/valgrind/.valgrind.suppress, scripts/valgrind/README.adoc, scripts/valgrind/valgrind.sh: Introduce scripts/valgrind with helper script\+data to trace memory usage [#2511]
- tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http.c: tools/nut-scanner/scan\_\*.c: revise "thready" scanning methods [#2511] \* Clearly name "thread-ready" scanning methods that can be used standalone or from pthread\_create() constraints \* Settle on "thready" methods freeing caller's data (so we do not worry about doing it after the parallel loops, or at a wrong moment before) \* Unify code mark-up in the files to facilitate later comparisons \* Update some comments
- NEWS.adoc, tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-init.c, tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_ipmi.c, nut-scan.h, nutscan-init.c, nut-scanner.c, NEWS.adoc: implement parallel scanning for remote IPMI controllers [#2523]
- UPGRADING.adoc: Revert "UPGRADING.adoc: hush the changes of PR for issue #2523 until it is in the codebase" This reverts commit d710adef2eba7003a0b42ae2d38709a7204befb4: the feature is here now.
- UPGRADING.adoc: hush the changes of PR for issue #2523 until it is in the codebase
- tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http.c: use blank lines in fallback not-built-here methods markup (as in other files)
- UPGRADING.adoc: highlight API (and a bit of ABI) changes to libnutscan, version bumped [#2244, #2523 et al]
- drivers/nut-libfreeipmi.c: fix indentation (TAB vs SPACE)
- clients/upsclient.h, drivers/nut-libfreeipmi.c, drivers/usb-common.c, drivers/usb-common.h, tools/nut-scanner/nut-scan.h, tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_usb.c, tools/nut-scanner/scan\_xml\_http.c: \*.c,h: Revise indentation of nested preprocessor clauses/code Conform to NUT code style guide, and satisfy pre-processors that insist on "traditional" code layout by default (hash sign must start the line for them).
- tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http.c: tools/nut-scanner/scan\_{nut,snmp,x} update comments
- tools/nut-scanner/nutscan-device.c, tools/nut-scanner/nutscan-device.h, tools/nut-scanner/nutscan-display.c, tools/nut-scanner/nutscan-init.c, tools/nut-scanner/nutscan-ip.h, tools/nut-scanner/scan\_avahi.c, tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_usb.c, tools/nut-scanner/scan\_xml\_http.c: tools/nut-scanner/\*.c: update © headers

## 2.195 2024-07-09 Jim Klimov <jimklimov@gmail.com>

- tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http.c: tools/nut-scanner/scan\_{ipmi,snmp}.c: comment concerns about bracketed IPv6 in "port" values [#2512]
- tools/nut-scanner/scan\_nut.c: report discovered IPv4 addresses in brackets [#2512]

## 2.196 2024-07-09 Jim Klimov <jimklimov+nut@gmail.com>

- tools/nut-scanner/nut-scanner.c: add a warning comment about bit-counting for -m auto [#2244, #2516]
- tools/nut-scanner/nut-scanner.c: implement "-m auto" for two WIN32 APIs [#2516]



- NEWS.adoc: update `nut-scanner -m auto` note - WIN32 is now supported too [#2516]
  - tools/nut-scanner/nutscan-init.c, tools/nut-scanner/nutscan-ip.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http.c: tools/nut-scanner/\*: move WIN32 `WSAStartup()` rituals to `nutscan_init()` so they only run once and for all [#2516]
  - common/common.c: revise debug-tracing of `get_libname*()` methods
  - configure.ac: fix location of `NUT_CHECK_HEADER_IPHLPAPI` call [#2516]
  - configure.ac, tools/nut-scanner/Makefile.am: detect WIN32 support of newer `GetAdaptersAddresses()` and/or older `GetAdaptersInfo()` [#2516]
  - configure.ac: clarify why we call "cygpath" or "pwd -W", constrain their warnings if they fail (wrong "pwd"), and report the outcome
  - builtin)
  - m4/nut\_check\_headers\_windows.m4: introduce `NUT_CHECK_HEADER_IPHLPAPI` [#2516]
  - tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_xml\_http.c: nut-scanner: convert NetXML scan to use `nutscan_ip_ranges_iter` [#2511]
  - tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_snmp.c: nut-scanner: convert SNMP scan to use `nutscan_ip_ranges_iter*()` [#2511]
  - tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_nut.c: nut-scanner: convert Old NUT scan to use `nutscan_ip_ranges_iter*()` [#2511]
  - tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_ipmi.c: nut-scanner: convert IPMI scan to use `nutscan_ip_ranges_iter*()` [#2511]
  - docs/man/Makefile.am, docs/man/nutscan\_add\_ip\_range.txt, docs/man/nutscan\_free\_ip\_ranges.txt, docs/man/nutscan\_init\_ip\_ranges.txt, docs/man/nutscan\_stringify\_ip\_ranges.txt, docs/nut.dict, tools/nut-scanner/nutscan-ip.c, tools/nut-scanner/nutscan-ip.h: nut-scanner: introduce `nutscan_stringify_ip_ranges()` [#2244, #2511]
  - tools/nut-scanner/nutscan-ip.c: `nutscan_add_ip_range()`: save `irl.start_ip`  $\leftarrow$  `irl.stop_ip` in alphanumeric comparison order [#2511]
  - NEWS.adoc, docs/man/Makefile.am, docs/man/nutscan\_add\_ip\_range.txt, docs/man/nutscan\_free\_ip\_ranges.txt, docs/man/nutscan\_ip\_ranges\_iter\_inc.txt, docs/man/nutscan\_ip\_ranges\_iter\_init.txt, docs/man/nutscan\_scan\_ipmi.txt, docs/man/nutscan\_scan\_nut.txt, docs/man/nutscan\_scan\_snmp.txt, docs/man/nutscan\_scan\_xml\_http\_range.txt, docs/nut.dict, tools/nut-scanner/nut-scanner.h, tools/nut-scanner/nutscan-ip.c, tools/nut-scanner/nutscan-ip.h: nut-scanner: implement iteration across `nutscan_ip_range_list_t` collection [#2511]
  - tools/nut-scanner/nutscan-ip.h: add `nutscan_ip_range_list_t` structure comments [#2244, #2511]
  - tools/nut-scanner/nutscan-ip.c: fix comment markup
  - docs/man/nutscan\_add\_ip\_range.txt: update wording and structure comments [#2244, #2511]
  - docs/man/nutscan\_add\_ip\_range.txt: fix copy-paste typo in title [#2244, #2511]
  - docs/man/Makefile.am: extend `HTML_DEV_MANS_FICTION` to be on par with .3 man pages
  - docs/man/Makefile.am: move a comment up to cover more relevant entries
  - docs/man/nut-scanner.txt, docs/nut.dict: docs/man/nut-scanner.txt: clarify about text host names as start/stop/cidr IPs [#2519]
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**2.197 2024-07-08 Jim Klimov <jimklimov@gmail.com>**

- tools/nut-scanner/Makefile.am, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-init.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http.c: tools/nut-scanner/scan\_\*.c: trace parallel scan ability init [#2511]
- tools/nut-scanner/nutscan-ip.c: /tools/nut-scanner/nutscan-ip.c: wrap iterated IPv6 addresses in square brackets [#2512]
- clients/upsclient.c: comment about bracketed IP addresses/host names [#2512]
- clients/upsclient.c: troubleshoot wrong `upsname@hostname` where only hostname was expected [#2512]
- clients/upsclient.c: cosmetic fix
- clients/upsclient.c: troubleshoot wrong hostname [#2512]
- clients/upsc.c: enable support for NUT\_DEBUG\_LEVEL envvar [#2512]

**2.198 2024-07-08 Jim Klimov <jimklimov+nut@gmail.com>**

- clients/upsclient.c: troubleshoot wrong `upsname@hostname` where only hostname was expected - use NUT\_STRARG() for safety [#2512]
- docs/man/Makefile.am, docs/man/nutscan.txt, docs/man/nutscan\_add\_ip\_range.txt, docs/man/nutscan\_free\_ip\_ranges.txt, docs/man/nutscan\_init\_ip\_ranges.txt, docs/nut.dict, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-ip.c, tools/nut-scanner/nutscan-ip.h: nut-scanner code and docs: refactor with `nutscan_ip_range_list_t` type for `ip_ranges[]` list and helper metadata, and methods as part of libnutscan [#2244, #2511] Not bumping library version, because it was recently bumped as part of other PRs about this issue. Technically the scope of the library has been changed by new exported methods and header lines.
- tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-ip.h: move `ip_range_t` definition into header [#2244]
- tools/nut-scanner/nutscan.h: move `__cplusplus` extern "C" guard up to before we declare vars and types
- docs/man/nut-scanner.txt, NEWS.adoc: (fixed) IPv6 addresses must be passed in square brackets [#2512]
- tools/nut-scanner/nut-scanner.c: strip square brackets around `start_ip/end_ip`, if any [#2512]
- tools/nut-scanner/nutscan-ip.c: `nutscan_cidr_to_ip()`: strip square brackets around `first_ip`, if any [#2512]
- tools/nut-scanner/nutscan-ip.c: `nutscan_cidr_to_ip()`: sanity-check for `cidr==null` [#2512]
- tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_nut.c: fix order of WIN32 active init calls vs. pthread variable declarations [#2511]
- tools/nut-scanner/nut-scanner.c: debug-log the Parallel scan support status in this build and run [#2511]
- tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http.c: tools/nut-scanner/scan\_\*.c: update some comments [#2511]
- tools/nut-scanner/scan\_xml\_http.c: collapse single and multiple IP address cases into one [#2512] This should apply formatting from `nutscan_ip_iter_init()` to single-IP scans like it happens for other protocols already. Also take the chance to rectify indentations through parallel threads code.
- tools/nut-scanner/scan\_xml\_http.c: comment where logical blocks end
- tools/nut-scanner/nut-scanner.c: `-t timeout`: fix to use `strtol()` not `atol()` [#2244]
- tools/nut-scanner/nut-scanner.c: `handle_arg_cidr()`: fix to use `strtol()` not `atoi()` [#2244]
- tools/nut-scanner/nut-scanner.c: `handle_arg_cidr()`: report ignoring a subnet by family before checking for mask length [#2244]
- tools/nut-scanner/nut-scanner.c: `handle_arg_cidr()` rename "optarg" to "arg\_addr" [#2244] Avoid warning about clash with a global variable. Fallout of refactoring original code into a method. Also make it `const` as we do not change the original value anyway.

- tools/nut-scanner/nut-scanner.c, docs/man/nut-scanner.txt, docs/nut.dict, NEWS.adoc: handle\_arg\_cidr(): add `-m auto*/ADDRLEN` mode [#2244]
- tools/nut-scanner/nut-scanner.c: handle\_arg\_cidr(): log why some discovered subnets are filtered out [#2244]
- tools/nut-scanner/nut-scanner.c: handle\_arg\_cidr(): line-wrap long printouts [#2244]
- tools/nut-scanner/nut-scanner.c: handle\_arg\_cidr(): tabs (style) [#2244]
- tools/nut-scanner/nut-scanner.c: refactor handle\_arg\_cidr() logic to un-indent it some more [#2244]
- tools/nut-scanner/nut-scanner.c: refactor handle\_arg\_cidr() into a separate method [#2244] Allow for some shorter indentation

## 2.199 2024-07-06 Jim Klimov <jimklimov+nut@gmail.com>

- m4/nut\_check\_libavahi.m4: fix detection of SOFILE/SOPATH - we need only the client library [#2431]
- NEWS.adoc, docs/man/nut-scanner.txt, tools/nut-scanner/nut-scanner.c: tools/nut-scanner/nut-scanner.c: implement `"-m auto{4,6}"` modes to limit selection of ranges to IPv4/IPv6 only [#2244]
- tools/nut-scanner/nut-scanner.c, NEWS.adoc: neuter networking `"-m auto"` support for WIN32 (needs different implementation) [#2244]
- tools/nut-scanner/nut-scanner.c: separate POSIX headers from WIN32 ones (for networking `"-m auto"` support) [#2244]

## 2.200 2024-07-05 Jim Klimov <jimklimov+nut@gmail.com>

- tools/nut-scanner/nut-scanner.c: `-m auto` discovery: use shorter addr/mask buffers [#2244]
- tools/nut-scanner/nut-scanner.c: comment some TODOs [#2244]
- tools/nut-scanner/nut-scanner.c: `-m auto`: implement actually converting discovered subnets into CIDR and adding to IP ranges for scanning [#2244]
- tools/nut-scanner/nut-scanner.c: flush existing start\_ip/end\_ip before handling whatever value of `-m` option [#2244]
- tools/nut-scanner/nut-scanner.c: quieter debug about "Discovering getifaddrs()" [#2244]
- tools/nut-scanner/nut-scanner.c: use pre-allocated struct sockaddr\_in{,6} so it is aligned how-ever the platform likes [#2244]
- tools/nut-scanner/nut-scanner.c: use fatalx() instead of hackarounds [#2244]
- tools/nut-scanner/nut-scanner.c: retain getifaddrs() findings printout as a real upsdebugx() trail [#2244] Originally I intended to use these to check that the address parsing code works, and drop the printf() of these messages. But if I collect them into a string and upsdebug() it - why not, can help troubleshooting in real life later, too.
- tools/nut-scanner/nut-scanner.c: upscale sockaddr flags to uintmax\_t for debug printouts to be predictable on different platforms [#2244]
- NEWS.adoc, docs/man/nut-scanner.txt, tools/nut-scanner/nut-scanner.c: tools/nut-scanner/nut-scanner.c et al: prepare for `-m auto` mode with detection of configured network interfaces
- drivers/libshut.c: libshut\_open(): use static structs and memcpy() to actually fix alignment warnings
- tools/nut-scanner/nut-scanner.c: quieter debug about add\_ip\_range() in-/semi-valid inputs [#2244]
- tools/nut-scanner/nutscan-ip.c: refactor to name IPv4 vars with a "4" in the name, and use static structs and memcpy() to actually fix alignment warnings [#2244]
- tools/nut-scanner/nutscan-ip.c: nutscan\_cidr\_to\_ip(): update comments and logged reports to help troubleshooting [#2244]
- tools/nut-scanner/nut-scanner.c: use xalloc() instead of hackarounds [#2244]
- tools/nut-scanner/Makefile.am, NEWS.adoc: expose more of libcommon\* symbols in libnutscan to use them in nut-scanner [#2244]

**2.201 2024-07-04 Jim Klimov <jimklimov@gmail.com>**

- .circleci/config.yml: report IP address when re-running the job with SSH
- docs/developers.txt: document pragmas for unused code/vars
- docs/developers.txt: document indentation style for nested macros/pragmas Inspired by weird bugs in code analysis tools on some platforms (and their headers). \* <https://stackoverflow.com/questions/42031921/unterminated-unconditional-directive-error-when-preprocessing-c-code>
- [https://bugs.lvm.org/show\\_bug.cgi?id=31886](https://bugs.lvm.org/show_bug.cgi?id=31886)
- ci\_build.sh: jump through some hoops to avoid use of "cpp" program name if we can
- .circleci/config.yml: try to install MC into "Re-run job with SSH" envs
- .circleci/config.yml: allow use of latest brew packages
- .circleci/config.yml: force use of CPP="clang -E" with clang builds
- .circleci/config.yml: force use of python3.12 for MacOS/Homebrew as of now
- ci\_build.sh: cater for net-snmp\+openssl intimacy on MacOS/Homebrew
- m4/ax\_realpath\_lib.m4: fall back to use "uname -m" for MacOS linker arch
- configure.ac: refactor with PROBE\_OS\_GROUP/PROBE\_OS\_USER to try "id" where "getent" is missing Primarily this facilitates "in-place replacement" builds

**2.202 2024-07-04 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/man/nut-scanner.txt: document that currently different IP range scans do not parallelize together [#2244] See also: <https://github.com/networkupstools/nut/issues/2511>
  - tools/nut-scanner/nut-scanner.c: drop unused DEFAULT\_TIMEOUT macro [#2244] We actually use DEFAULT\_NETWORK\_TIMEOUT from common.h same as in clients/upsclient.c
  - tools/nut-scanner/nutscan-device.c: protect nutscan\_add\_device\_to\_device() from adding a list to itself
  - tools/nut-scanner/nut-scanner.c: use run\*() methods for most of the non-threaded scans too [#2244]
  - tools/nut-scanner/nut-scanner.c, docs/man/nut-scanner.txt, NEWS.adoc: introduce a way to scan several IP address ranges [#2244]
  - docs/man/nut-scanner.txt, docs/nut.dict: docs/man/nut-scanner.txt: note that some protocols require IP address options and others behave differently without them [#2244]
  - docs/man/nut-scanner.txt: update general markup
  - docs/man/nut-scanner.txt: update general wording about IP address options [#2244]
  - tools/nut-scanner/nutscan-ip.c: tools/nut-scanner/nut-scanner.c: comment some TODO for IPv6 netmask proper support [#2244]
  - tools/nut-scanner/nut-scanner.c: clarify some code comments [#2244]
  - tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http.c: tools/nut-scanner/{ scan\_xml\_http.c, scan\_snmp.c, scan\_nut.c, scan\_ipmi.c}: report the IP address (range, single, none) in the log [#2244]
-

**2.203 2024-07-03 Jim Klimov <jimklimov@gmail.com>**

- m4/nut\_check\_libnetsnmp.m4: revise detection of the two headers
  - m4/ax\_realpath\_lib.m4: revise to better detect MacOS \*.dylib files [#2431]
  - tools/nut-scanner/nutscan-init.c: do not detect NUT\_PLATFORM\_APPLE\_OSX as WITH\_MACOSX (driver)
  - m4/nut\_check\_libnetsnmp.m4: check for both headers we use typically, and report the findings
  - .circleci/config.yml: relink net-snmp from brew to be in default search paths It seems the XCode version of the library and its headers gets preferred, so we either find no symbols or load the library variant built without them.
  - m4/nut\_check\_libnetsnmp.m4: report myCFLAGS\_SOURCE and myLIBS\_SOURCE from which we learned the settings
  - .circleci/config.yml: clean up debugging around openssl@3 [#2502]
  - .circleci/config.yml: relink openssl package if needed, and fail job if we can not
  - .circleci/config.yml: relink openssl package
  - .circleci/config.yml: report what "brew" knows about openssl\* package(s)
  - docs/config-prereqs.txt, .circleci/config.yml: we can detect HOMEBREW\_PREFIX from the running system [#2502]
  - .circleci/config.yml: try to ensure openssl@3 usability by reinstalling it in the end, and report what pkg-config knows
  - ci\_build.sh: do not set CPPFLAGS on MacOS/Homebrew builds [#2502]
  - .circleci/config.yml: use clang (not gcc) directly, gcc now seems to just be an alias [#2502]
  - tools/nut-scanner/Makefile.am: undefine NETSNMP\_USE\_OPENSSL if building without it
  - drivers/Makefile.am: undefine NETSNMP\_USE\_OPENSSL if building without it
  - configure.ac: detect WITH\_SSL variants before other libraries (notably net-snmp)
  - .circleci/config.yml: stash resulting config.nut\_report\_feature.log [#2501]
  - .circleci/config.yml: now ci\_build.sh used for MacOS/Homebrew builds knows to not distrust system include dirs by default [#2501]
  - ci\_build.sh: for MacOS/Homebrew builds, do not distrust system include dirs by default [#2501]
  - .circleci/config.yml, docs/config-prereqs.txt: enable cppunit with MacOS/Homebrew builds [#2502]
  - ci\_build.sh: try to mark Homebrew (MacOS) include paths as "-isystem" to avoid some warnings [#2502]
  - tests/cpptest-client.cpp, tests/cpptest.cpp, tests/example.cpp, tests/nutclienttest.cpp, tests/nutconf\_parser\_ut.cpp, tests/nutconf\_ut.cpp, tests/nutipc\_ut.cpp, tests/nutstream\_ut.cpp: tests/\*.cpp: wrap CPPUNIT includes with more pragmas to ignore warnings [#2502]
  - m4/ax\_c\_pragmas.m4: add many C++ pragmas about CPPUNIT grief seen on MacOS builds [#2502]
  - drivers/snmp-ups.h, tools/nut-scanner/scan\_snmp.c: use HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_UNUSED\_PARAMETER around net-snmp headers
  - m4/ax\_c\_pragmas.m4: introduce HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_UNUSED\_PARAMETER
  - NEWS.adoc: report changes about MacOS builds on NUT CI and interactively [#2502]
  - .circleci/config.yml: pass just HOMEBREW\_PREFIX to ./ci\_build.sh now, not customized paths anymore [#2502]
  - ci\_build.sh: inject pkg-config, libltdl and libsnmp settings with HOMEBREW\_PREFIX automatically
  - ci\_build.sh: guess CI\_CCACHE\_SYMLINKDIR with HOMEBREW\_PREFIX automatically
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- .circleci/config.yml, docs/config-prereqs.txt, docs/nut.dict: .circleci/config.yml, docs/config-prereqs.txt: install docbook-xsl and document nuances around it
- ci\_build.sh: set \*FLAGS after detecting CI\_OS\_NAME nuances
- .circleci/config.yml: use HOMEBREW\_PREFIX variable as already used by brew [#2502]
- configure.ac: revise use of AC\_SEARCH\_LIBS for i2c methods (one per call)
- m4/nut\_check\_libregex.m4: further simplify work with AC\_SEARCH\_LIBS
- m4/nut\_check\_libregex.m4: AC\_SEARCH\_LIBS is for one method at a time
- scripts/augeas/gen-nutupsconf-aug.py.in: mark regex strings as r"" [#2183]
- .circleci/config.yml, docs/config-prereqs.txt: clarify dependencies available via Homebrew on MacOS [#2502]

## 2.204 2024-07-03 Jim Klimov <jimklimov+nut@gmail.com>

- .circleci/config.yml: introduce NUTCI\_HOMEBREW\_BASEDIR to parameterize location of Homebrew libs, includes and ccache [#2502]
- .circleci/config.yml: introduce NUTCI\_HOMEBREW\_BASEDIR to parameterize location of Homebrew libs, includes and ccache [#2502]
- docs/config-prereqs.txt, .circleci/config.yml: clarify the different Homebrew locations are due to architecture, not age [#2502]
- configure.ac: fix capitalization of Python the language [#2183]
- configure.ac: rectify adding to PYTHON\_FAILED\_TEST\_DETAILS [#2183]
- configure.ac: fix reported messages after refactoring [#2183]
- configure.ac: trace decision-making about NUT-Monitor installation (or not) [#2183]
- configure.ac, m4/nut\_check\_python.m4: reshuffle Python detection vs. capability probing [#2183]
- configure.ac: refactor detection of usable Python interpreters; report their module search paths and versions [#2183]
- configure.ac: separate tests for nut\_with\_pynut\_py\* from nut\_have\_telnetlib\_py\*, and in those separate tests of stock telnetlib from fallback nut\_telnetlib [#2183]
- configure.ac: be sure to probe nut\_telnetlib module from source dir [#2183] Avoid confusion for out-of-tree builds
- COPYING, docs/nut.dict, scripts/python/module/nut\_telnetlib.py: COPYING, scripts/python/module/nut\_telnetlib.py: clarify the license for the copied file [#2183]
- configure.ac: upper-case Python name in message [#2183]
- configure.ac: typo in path to test with nut\_telnetlib Python module [#2183]

## 2.205 2024-07-02 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/main.c, clients/upsmon.c, server/upsd.c: clarify PID-file checks wording: "is running **or not**"
  - m4/ax\_realpath\_lib.m4: try to make use of LDFLAGS, LIBS and CFLAGS when discovering libraries [#2431] At least MacOS with Homebrew seems puts each packaged library into its own directory, so args like -L/opt/homebrew/Cellar/neon/0.32. would be required for successful discovery.
  - UPGRADING.adoc: clarify about AX\_REALPATH\_LIB benefits that can simplify packaging [#2431]
  - tests/NIT/nit.sh: log\_debug the python shebang, and separate first
-

- NEWS.adoc, docs/nut.dict, tools/nut-scanner/nutscan-init.c: tools/nut-scanner/\*, NEWS.adoc, docs/nut.dict: make use of AX\_REALPATH\_LIB discovered libraries [#2431]
- tools/nut-scanner/nutscan-init.c: set libname=NULL after we free() it [#2431]
- tools/nut-scanner/nutscan-init.c: rearrange pragma indentations and update comments [#2431]
- common/common.c: extend get\_libname() to try exact hits if base\_libname includes path separator character(s) [#2431]
- tools/nut-scanner/nutscan-init.c, m4/ax\_realpath\_lib.m4: acknowledge MacOS Darwin "\*.dylib" extension [#2431]
- m4/nut\_compiler\_family.m4: fence NUT\_COMPILER\_FAMILY to only run the logic once

## 2.206 2024-07-01 Jim Klimov <jimklimov+nut@gmail.com>

- m4/nut\_check\_libavahi.m4, m4/nut\_check\_libfreeipmi.m4, m4/nut\_check\_libneon.m4, m4/nut\_check\_libnetsnmp.m4, m4/nut\_check\_lib\*.m4: call AX\_REALPATH\_LIB to discover SOPATH\*/SOFILE\* for nut-scanner third-party libs [#2431] libavahi, libfreeipmi, libneon, libnetsnmp, libusb0/1 NOTE: The libnutclient is separate, we build it - so can not detect the final name in advance right here
- m4/ax\_realpath\_lib.m4: introduce a way to find dynamic library names [#2431]
- .circleci/config.yml: add /opt/homebrew to include and lib choices [#2502]
- configure.ac: MacOS Darwin fails to run python scripts with proper interpreter via shebang [#2502]
- .circleci/config.yml: re-enable relinking libtool files Allegedly should help find ltdl.h
- .circleci/config.yml: update Homebrew dependency list to facilitate builds on newer baseline [#2502]
- docs/config-prereqs.txt: update dependency list and CI\_CCACHE\_SYMLINKDIR for newer Homebrew recipes [#2502]
- .circleci/config.yml: update CI\_CCACHE\_SYMLINKDIR for newer Homebrew recipes [#2502]
- tests/NIT/nit.sh: report the detected python shebang
- .circleci/config.yml: store config.log artifact for troubleshooting [#1419]
- NEWS.adoc, configure.ac, docs/nut.dict, scripts/python/Makefile.am, scripts/python/README.adoc, scripts/python/module/-Makefile.am, scripts/python/module/PyNUT.py.in, scripts/python/module/nut\_telnetlib.py, scripts/python/module/setup.py.in: Provide a fallback copy of telnetlib module for PyNUTClient [#2183]
- .circleci/config.yml: add a failfast implementation to abort broken builds and use fewer resources [#2502] The underlying problems are usually shared.
- .circleci/config.yml: bump XCode version to the oldest currently available now [#2502] Closes: #2502
- ci\_build.sh: allow to customize PYTHON implementation when dev-building (without args)
- scripts/python/module/test\_nutclient.py.in: make internal debug verbosity of the module optional

## 2.207 2024-06-25 Jim Klimov <jimklimov+nut@gmail.com>

- NEWS.adoc, docs/nut.dict: NEWS.adoc: update for libserial-nutscan.la [#2490]
- configure.ac: fix indentations for recently changed --with-docs code [#2473]
- Makefile.am: move distcheck-light-man up to distcheck-light [#2473]
- common/Makefile.am: do not embed libnutwincompat.la pieces into libcommonstr.la Initially that embedding was done to help libnutscan builds with libcommonstr.la helper, but then a separate link with libnutwincompat.la was back-ported - so this line removal helps both to constrain the helper size/scope, and against a build-time conflict.

**2.208 2024-06-24 Jim Klimov <jimklimov+nut@gmail.com>**

- tools/nut-scanner/Makefile.am: bump libnutscan version-info just in case after recent recipe changes
- tools/nut-scanner/Makefile.am: drop LINKED\_SOURCE\_FILES now that we have libserial-nutscan.la
- tools/nut-scanner/Makefile.am: append to common make variables instead of defining them at first assignment Would help later when merging DMF/FTY branches; for now just a bit of syntactic sugar and reduction of diffs against them.
- drivers/Makefile.am, tools/nut-scanner/Makefile.am: introduce libserial-nutscan.la to simplify nut-scanner recipes Initiated in DMF branch by commit 4fec99ab62977365c0fa3de12f77ed9b6a01cc20

**2.209 2024-06-20 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/dstate.c, drivers/dstate.h: drivers/dstate.{c,h}: introduce conn\_t→readzero field and throttles around it [#2484]
- clients/nutclient.h, clients/nutclientmem.h, clients/upsclient.h, drivers/generic\_gpio\_common.h, drivers/generic\_gpio\_libgpiod.h, drivers/hidparser.h, drivers/libhid.h, drivers/main.h, drivers/upsdrvquery.h, server/upsd.h: Numerous headers: define include-guard to a number value; revise names of these guards
- drivers/dstate.c: indent ifdef-fenced includes
- drivers/dstate.c, NEWS.adoc: a read() returning 0 after a select with O\_NDELAY means EOF (the other side closed socket) [#2484]
- tests/NIT/nit.sh: report PID\_\* set by this script for NUT daemons it has launched
- tests/NIT/nit.sh: when we DEBUG\_SLEEP, report practical steps after dumping envvars - so dev/tester knows how they can proceed
- tests/NIT/nit.sh: document a typical test sandbox preparation

**2.210 2024-06-18 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/nut.dict: update for recent changes in NEWS.adoc [#2478]
- NEWS.adoc: mention use of SSL linker deps for snmp-ups and netxml-ups builds [#2479]
- NEWS.adoc: mention libcommonstr.la [#2478]

**2.211 2024-06-17 Jim Klimov <jimklimov+nut@gmail.com>**

- common/Makefile.am: libcommonstr\_la\_LIBADD += @BSDKVMPROCLIBS@ [#2463, #2478]

**2.212 2024-06-15 Jim Klimov <jimklimov+nut@gmail.com>**

- common/Makefile.am, tools/nut-scanner/Makefile.am: Introduce private libcommonstr.la recipe A smaller helper library than libcommonclient.la which is sometimes an overkill, e.g. in nut-scanner where the libupsclient.so/.dll is loaded dynamically for "Old NUT" scans and there is no specific use for object files included into libcommonclient.la. More use-cases with DMF codebase (currently not yet upstreamed). Combined from a series of commits like \* 3ba6b576cd2248484ea \* c418728e6ed7879f4a569ca0e3fd6f38fcb27eae \* 5f16b7b7c89fa341090e886e7ca5cf8d981430eb \* bc4cd957280c67778a36b49b52a
  - NEWS.adoc, docs/configure.txt: document --with-doc=dist-auto option [#2473]
  - configure.ac: apply comment for nut\_with\_libltdl=no vs. nut\_with\_nut\_scanner=yes situation Derived from commits 21d62421fea72c and 9322e2e3404b97615af799b7062e962030277830 in the FTY branch.
  - Makefile.am: use job-server for DMF-related targets with sub-makes: cover distcheck-light-man
-



- Makefile.am: make `distcheck-light-man` should test installability of NUT-Monitor and PyNUT (even if as a co-bundle) Modernize `DISTCHECK_LIGHT_MAN_FLAGS` for 2022\+ Replicate commit `e19fa235a7cecdf5bc5752ab87c3e6db81932da` from PR <https://github.com/networkupstools/nut/pull/1504>
- README.adoc: add a Star History Chart badge/image

### 2.213 2024-06-15 Fabrice Fontaine <[fontaine.fabrice@gmail.com](mailto:fontaine.fabrice@gmail.com)>

- `clients/upscli.h`: include `sys/types.h` Include `sys/types.h` to avoid the following `uclibc` build failure with `collectd` raised since version 2.8.0 and <https://github.com/networkupstools/nut/commit/3f3851eab0d51e029f67e7db359860cc983557f4>: `configure:109633: checking int type of port argument for NUT upscli_splitname configure:109665: /home/buildroot/instance-0/output-1/host/bin/x86_64-linux-gcc -c -D_LARGEFILE_SOURCE -D_LARGEFILE64_SOURCE -D_FILE_OFFSET_BITS=64 -O2 -g0 -Wall -Werror -D_LARGEFILE_SOURCE -D_LARGEFILE64_SOURCE -D_FILE_OFFSET_BITS=64 conftest.c` >&5 In file included from `conftest.c`:172: `/home/buildroot/instance-0/output-1/host/x86_64-buildroot-linux-uclibc/sysroot/usr/include` error: unknown type name `ssize_t`; did you mean `size_t`? 114 \ `ssize_t upscli_sendline_timeout(UPSCONN_t *ups, const char *buf, size_t buflen, const time_t timeout);` | ^~~~~ \ `size_t` Fixes: - <http://autobuild.buildroot.org/results/205/2058f87ad7dbf7fbc62c874> `collectd-5.12.0/config.log`

### 2.214 2024-06-15 Bohdan <[chbgdn@gmail.com](mailto:chbgdn@gmail.com)>

- `drivers/powercom-hid.c`: fix bytes order in shutdown commands

### 2.215 2024-06-13 Jim Klimov <[jimklimov+nut@gmail.com](mailto:jimklimov+nut@gmail.com)>

- `NEWS.adoc`, `UPGRADING.adoc`, `clients/upsmon.c`, `common/common.c`, `drivers/main.c`, `drivers/upsdrvctl.c`, `include/common.h`, `scripts/Windows/wininit.c`, `server/upsd.c`: Extend `sendsignal*()` API some more to optionally fall back to `checkprocname()` vs current `getpid()` [#2463]
- `NEWS.adoc`, `UPGRADING.adoc`, `common/common.c`, `conf/nut.conf.sample`, `docs/man/nut.conf.txt`, `docs/nut.dict`, `include/common.h`: Introduce `NUT_IGNORE_CHECKPROCNAME=true` support to skip PID process name validation if it causes problems [#2463]
- `UPGRADING.adoc`: warn that packaged program name mismatches can be a problem [#2463]

### 2.216 2024-06-10 Jim Klimov <[jimklimov+nut@gmail.com](mailto:jimklimov+nut@gmail.com)>

- `clients/upsmon.c`: for OB UPS and communications failure, leave just the debug log message [#2454]
- `NEWS.adoc`: explain the fix for #2454 via #2462
- `common/common.c`: `checkprocname()`: case #5 is not "exact", fix the message [#2463]

### 2.217 2024-06-09 Jim Klimov <[jimklimov+nut@gmail.com](mailto:jimklimov+nut@gmail.com)>

- `common/common.c`, `include/common.h`: `common/common.c`: `getprocname()`: implement support for WIN32 parsing without a `/proc` [#2463]
- `common/common.c`, `configure.ac`: `common/common.c`: `getprocname()`: implement support for `/proc/NNN/psinfo` (Solaris/illumos) parsing [#2463]
- `common/common.c`: `getprocname()`: revise printed messages [#2463]
- `common/Makefile.am`, `common/common.c`, `configure.ac`: `common/common.c`: `getprocname()`: implement support for (Open)BSD parsing without a `/proc` [#2463]
- `common/common.c`: `getprocname()`: implement support for `/proc/NNN/stat` parsing [#2463]



**2.218 2024-06-08 Jim Klimov <jimklimov+nut@gmail.com>**

- common/common.c: getprocname(): implement support for /proc/NNN/cmdline parsing [#2463]
- UPGRADING.adoc, clients/upsmon.c, common/common.c, docs/nut.dict, drivers/main.c, drivers/upsdrvctl.c, include/common.h, server/upsd.c: Pass "progrname" through sendsignal\*() methods to verify that we sendsignal\*() via old PID only to same progrname [#2463] Internal API change for common.c/h
- common/common.c: sendsignalpid(): comment about not-signaling PID<2

**2.219 2024-06-07 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc, common/common.c, configure.ac, include/common.h: Introduce getprocname() and checkprocname() for suspicious PID values, and helper parseprogbasename() [#2463]
- NEWS.adoc: rearrange entries

**2.220 2024-06-06 Jim Klimov <jimklimov+nut@gmail.com>**

- data/driver.list.in: shorten HCL title for Cyber Energy devices Asked via mailing list to not deference the USB VID:PID in the HCL title

**2.221 2024-06-05 Andriy Gapon <avg@FreeBSD.org>**

- clients/upsmon.c: clients/upsmon: restore handling of comm failure while on battery Commit 2647f026f7f0 from #2108 updated is\_ups\_critical() such that a communication failure (commstate == 0) while on battery (linestate == 0) would be treated as immediately entering critical state. There was no way to disable that behavior or add any grace period. As such, that change made DEADTIME parameter ineffective as lastpoll being stuck should be equivalent to commstate == 0 because any lastpoll update sets commstate to 1. This change removes special handling of that condition from is\_ups\_critical() and reverts to the prior behavior where recalcd() looks at lastpoll and deadtime to set LB flag after the configured communication timeout.

**2.222 2024-06-04 Jim Klimov <jimklimov+nut@gmail.com>**

- tests/NIT/nit.sh: make use of NUT\_DEBUG\_SYSLOG tweak setting
- NEWS.adoc, common/common.c, conf/nut.conf.sample, docs/man/nut.conf.txt, include/common.h: Introduce a NUT\_DEBUG\_SYSLOG environment variable [#2394]

**2.223 2024-06-03 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/documentation.txt: update URL for Configuration Examples to directly fetch the latest PDF book, not go to the GH release page (fix typo)
- docs/documentation.txt: update links for Roger Price original page and replicas in NUT GitHub org
- docs/documentation.txt: update URL for Configuration Examples to directly fetch the latest PDF book, not go to the GH release page

**2.224 2024-05-30 Nicola Fontana <ntd@entidi.it>**

- docs/man/bicker\_ser.txt: bicker\_ser: improve styling of relay modes doc
  - docs/man/bicker\_ser.txt, drivers/bicker\_ser.c: bicker\_ser: move unofficial variables into "experimental" namespace
  - drivers/bicker\_ser.c: bicker\_ser: register the shutdown.return instcmd
  - drivers/bicker\_ser.c: bicker\_ser: enforce expected data size When receiving a packet of known data size, ensure that data size is exactly what expected. That should avoid later surprises, e.g. fiddling with bytes never received.
-

**2.225 2024-05-28 Nicola Fontana <ntd@entidi.it>**

- drivers/bicker\_ser.c: bicker\_ser: avoid GCC warnings Initialize the `parameter` struct to avoid GCC complains about "'parameter.value' may be used uninitialized in this function". This is not a real error because, if `bicker_write` is successful, that struct is populated properly.
- drivers/bicker\_ser.c: bicker\_ser: bump driver version
- docs/man/bicker\_ser.txt: bicker\_ser: add variables info to manpage Variables are mapped 1:1 to Bicker parameters, so the descriptions have been borrowed and adapted directly from the UPS Gen2 software manual.
- drivers/bicker\_ser.c: bicker\_ser: allow writing to Bicker parameters All Bicker parameters (at least the supported ones) can be changed, so enable writing and set proper ranges. Expose all parameters, even the non-standard ones.

**2.226 2024-05-27 Nicola Fontana <ntd@entidi.it>**

- drivers/bicker\_ser.c: bicker\_ser: ensure `battery.charge.low` is defined According to RFC-9271, that variable is part of the "Desktop PC Variables" set so it is expected to be present and its default value is 20 seconds.
- drivers/bicker\_ser.c: bicker\_ser: allow NULL `dst` in parameter handling The comments say to use `NULL` for discarding the results but `bicker_receive_parameter()` was accessing `dst->id`, effectively preventing it. Fix that bug and improve the code: now `bicker_receive_parameter()` validates the parameter id (so it can be used freely) and it always logs debugging info about the parameter.
- drivers/bicker\_ser.c: bicker\_ser: add id validation to `bicker_get()`
- drivers/bicker\_ser.c: bicker\_ser: make `dst` optional in `bicker_write` The `dst` argument is optional in every other function, so be consistent and make it optional also in this one.
- drivers/bicker\_ser.c: bicker\_ser: rename `parameter` to `dst` This should make clear that argument is just used for destination.

**2.227 2024-05-24 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/man/nut.exe.txt, docs/nut.dict: suggest some PowerShell magic to prepare Windows Firewall for upsd [#2446, #2455]
- scripts/Windows/wininit.c, docs/man/nut.exe.txt: introduce "nut.exe start/stop" wrappings [#2455]
- scripts/Windows/wininit.c: introduce an `SvcExists()` method [#2455]
- scripts/Windows/wininit.c: clarify that this is what becomes "nut.exe" normally [#2446]
- docs/man/nut.exe.txt: mention `net start/stop` to manage Windows services [#2446, #2455]

**2.228 2024-05-23 Nicola Fontana <ntd@entidi.it>**

- drivers/bicker\_ser.c: bicker\_ser: expose mappable parameters Every Bicker parameter that has a correspondence in `nut-names.txt` has been mapped. If the parameter is disabled on the device, no NUT variable is created. If the NUT variable is set to an empty string, the parameter is reset and disabled on the device and that NUT variable is removed.
  - drivers/bicker\_ser.c: bicker\_ser: add sanity checks to `bicker_set` These devices seem to be picky on what you use to set parameters.
  - drivers/bicker\_ser.c: bicker\_ser: make parameter handling less error prone Using an in/out struct and making some specific field mandatory is cumbersome and error prone. Now the data needed for setting or getting parameters is explicitly required by the arguments.
-

**2.229 2024-05-22 Nicola Fontana <ntd@entidi.it>**

- drivers/bicker\_ser.c: bicker\_ser: refactor to clarify packet manipulation Change BICKER\_PACKET from a constant value to a macro that depends on the data length. This should make clear that the packet size depends directly from the data size. Refactored some code here and there trying to minimize the presence of magic numbers and clarify the intentions.
- drivers/bicker\_ser.c: bicker\_ser: use proper format modifiers in logs Ensure the format string in logging messages is the correct one without subcasting. Furthermore, due to the promotion rules of the C language (where any given type, even unsigned, is promoted to int when possible), explicitly cast to unsigned where required.
- drivers/bicker\_ser.c: bicker\_ser: use uint8\_t for bytes instead of char char is by default signed and (as the name implies) designed to access string characters. For accessing bytes, the uint8\_t type is more appropriate.
- drivers/bicker\_ser.c: bicker\_ser: cosmetic fixes
- drivers/bicker\_ser.c: bicker\_ser: fix alignment and endianness problems Accessing an uint16\_t on odd addresses is not portable. Avoid having to deal with that issue by always constructing words mathematically from single bytes. This also solves any endianness difference.
- drivers/bicker\_ser.c: bicker\_ser: fix string dstate setting User provided strings could contain printf special sequences and as such they should never be used in the format argument of dstate\_setinfo().
- drivers/bicker\_ser.c: bicker\_ser: differentiate between error and unsupported When a command is unsupported, the "\x01\x03\xEE\x07" response packet is returned. This is different from a response packet with a wrong command index. WARNING: the "unsupported" packet has been found sperimentally and it is an undocumented feature.

**2.230 2024-05-21 Nicola Fontana <ntd@entidi.it>**

- drivers/bicker\_ser.c: bicker\_ser: add parameter support Added the needed infrastructure for getting and setting parameters. Actually the only parameter that is surely working is "ups.delay.start".
- drivers/bicker\_ser.c: bicker\_ser: use variable for low battery limit
- drivers/bicker\_ser.c: bicker\_ser: add more state variables Identification fields are now queried from the device. Also "battery.charge" is now set properly.
- drivers/bicker\_ser.c: bicker\_ser: refactor to allow more complex packet handling I'm planning to add functions for reading strings, i.e. without knowing beforehand the size of the response packets. This required some refactoring of the receiving functions. Also, while at it, added docblocks to many Bicker functions, hopefully easing the maintenance in the future.
- drivers/bicker\_ser.c: bicker\_ser: explicitly pass the command index In the previous implementation the command index was always \x03, as stated by the UPSIC manual. After new evidence has been found (UPS-Gen2 software user manual), it came out there are much more commands grouped in different indexes.
- drivers/bicker\_ser.c: bicker\_ser: update protocol documentation Bicker told me to refer to the UPS Gen software's user manual for more details on their protocol, and in fact that manual contains much more info. Added a summary of available commands to the comments, as a quick reference for feature implementation.

**2.231 2024-05-18 Nicola Fontana <ntd@entidi.it>**

- NEWS.adoc: announce bicker\_ser driver [#2318]

**2.232 2024-05-18 Jim Klimov <jimklimov+nut@gmail.com>**

- tools/nut-scanner/nut-scanner.c: clarify logs about "SKIPPED" scans as not requested "or supported"
  - tools/nut-scanner/nut-scanner.c: clarify "old nut" (libupsclient) vs. avahi detection in messages/help
-

- tools/nut-scanner/nutscan-init.c: only set nutscan\_avail\_snmp=1 if WITH\_SNMP\_STATIC in nutscan\_init() ... and let debug log know we skipped the library search, and why.
- tools/nut-scanner/nutscan-init.c, NEWS.adoc: avoid always considering "Old NUT" method available [fallout of #2246] If libupsclient.so was not loaded, we can not really use this search. Seems like a copy-paste problem mis-adding the NUT Simulation support.

### 2.233 2024-05-17 Nicola Fontana <ntd@entidi.it>

- docs/man/Makefile.am, docs/man/bicker\_ser.txt, docs/nut.dict: bicker\_ser: add manpage
- drivers/bicker\_ser.c: bicker\_ser: use length macros to increase expressiveness
- drivers/bicker\_ser.c: bicker\_ser: add big-endian platform support
- data/driver.list.in: add bicker\_ser based UPSes
- drivers/bicker\_ser.c: bicker\_ser: add shutdown support The protocol supports shutdown after a custom delay settable between 0 and 255 seconds. Unfortunately the real device (UPSIC-2403D) seems to always enforce a 2 seconds delay.

### 2.234 2024-05-16 Nicola Fontana <ntd@entidi.it>

- drivers/Makefile.am, drivers/bicker\_ser.c: bicker\_ser: Bicker UPSes based on PSZ-1063 Add a new driver for Bicker DC UPS systems based on the PSZ-1063 extension module. This includes UPSIC-1205, UPSIC-2403 and DC2412-UPS(LD) models.

### 2.235 2024-05-16 Jim Klimov <jimklimov+nut@gmail.com>

- docs/Makefile.am, .gitignore: use unique temporary filenames in \$(NUT\_SPELL\_DICT).usage-report, ChangeLog.adoc and .adoc.adoc-parsed rules to avoid surprises TODO: Look at why we might call generation of ChangeLog.adoc several times simultaneously and the make job server would not prevent that?
- Makefile.am: avoid spurious "find: .../ChangeLog: No such file or directory" with some "test" command implementations [nut-website#52] Some test's evaluate all conditions first and only handle them via boolean logic later. Oh the audacity!
- scripts/augeas/Makefile.am: fix check in out-of-tree builds (e.g. distcheck) [#657]

### 2.236 2024-05-15 Jim Klimov <jimklimov+nut@gmail.com>

- NEWS.adoc, docs/Makefile.am: disable "make install" for "html-chunked" documentation [#2445] These documents are delivered as an horde of files spread in a nested directory hierarchy for each document, and the install scripts that automake uses seem to struggle with that. Maybe just need to find a suitable automagic keyword - but this can wait.
  - scripts/Windows/wininit.c: help(): report the confpath() to configure the daemons [#2432]
  - NEWS.adoc, docs/man/Makefile.am, docs/man/nut.exe.txt: add a man page of NUT for Windows wrapper for all-in-one service [#2432]
  - NEWS.adoc, UPGRADING.adoc, docs/nut.dict: note the enabled installation of built PDF and HTML files [#2445]
  - scripts/Windows/build-mingw-nut.sh: make sure docs are built as requested (and possible)
  - scripts/Windows/build-mingw-nut.sh: enable HTML (man) page builds where possible
  - scripts/Windows/build-mingw-nut.sh: neuter the use-case of --without-pkg-config (not implemented in m4 - do not confuse ourselves)
  - Makefile.am: typo fix man-html⇒html-man
  - configure.ac, docs/Makefile.am, docs/man/Makefile.am: support actually installing built PDF and HTML docs
-

**2.237 2024-05-14 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/Windows/wininit.c: introduce "-D" CLI option support to request debug of this and called NUT programs
- scripts/Windows/wininit.c: C pedantic warnings - mark methods with no args as such (void)
- scripts/Windows/wininit.c: when the service fails to start... [#2430] \* as a console app that tried to be a service - report the error not only in Event Log but also on console; \* for other issues write the GetLastError code to Event Log; \* always exit with error code
- scripts/Windows/wininit.c: when the program fails to start and has no arguments, report help() and exit with error code [#2432]
- scripts/Windows/wininit.c: add help() and ways to request it and NUT version info [#2432]
- scripts/Windows/wininit.c: update comments
- scripts/Windows/wininit.c: parse\_nutconf(): update emitted messages when starting/stopping daemons
- scripts/Windows/wininit.c: rectify whitespace (coding style)
- clients/upsmon.c: clear\_pdfflag(): fix message markup and content for a non-NUT killpower file [#2444]
- drivers/mge-hid.c, NEWS.adoc: extend mge\_model\_names[] for Eaton 5SC and 5PX series [#2380]
- drivers/mge-hid.c: indent fallback round() implem consistently
- drivers/mge-hid.c: indent vendor ID macros consistently
- drivers/mge-hid.c: bump © for AQ
- NEWS.adoc, docs/nut.dict: announce hwmon\_ina219 driver [#2430]
- drivers/hwmon\_ina219.c: battery\_voltage\_params\_init() comment about not re-evaluating during driver uptime [#2430]
- drivers/hwmon\_ina219.c: scan\_hwmon\_ina219(): make use of detect\_ina219() a bit more idiomatic and log a skipped non-ina219 location [#2430]
- drivers/hwmon\_ina219.c: upsdv\_help(): drop sysfs\_dir setting - it is an addvar() auto-documented feature [#2430]
- drivers/hwmon\_ina219.c: upsdv\_help(): clarify sysfs\_dir setting [#2430]
- docs/man/hwmon\_ina219.txt: update default.battery.voltage.nominal description [#2430] Clarified existing pre-set combos recognized by the driver code.

**2.238 2024-05-10 Jim Klimov <jimklimov@gmail.com>**

- docs/Makefile.am: re-evaluate calls to "make ../ChangeLog" always, now that the parent Makefile knows when to slack off [nut-website#52]
- Makefile.am, docs/Makefile.am: Makefile.am: update ChangeLog recipe to log messages about its work/skip/fail decisions [nut-website#52]
- Makefile.am: update ChangeLog recipe to be a no-op if the existing file is newer than anything in a NUT\_GITDIR (may be not ".git/" directly) [nut-website#52]
- Makefile.am: update ChangeLog recipe to be a no-op if the existing file is newer than .git/HEAD [nut-website#52] if test -e .git/HEAD && ( rm -f "find "\$@" -not -newer .git/HEAD" \! true ) 2>/dev/null && ls -la .git/HEAD "\$@" 2>/dev/null ; then SKIP ; else WORK ; fi Hopefully this takes care of corner cases: \* No .git/HEAD ⇒ WORK (may be unsuccessfully, maybe not - e.g. Git submodules referring to parent) \* rm fails, maybe find returns empty ⇒ DON'T CARE, go to LS \* ls fails (one of target files is absent - e.g. ChangeLog removed or never was there) ⇒ WORK Only if the ChangeLog is still there after the attempt on its life, SKIP and keep it
- docs/download.txt: update NetBSD links to use correct http(s) schemas [nut-website#52]

**2.239 2024-05-10 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc: mention refactoring and warning-fixing during NUT v2.8.3 cycle
- tools/nut-scanner/nutscan-display.c: fix the order of calloc() parameters [#2437, #823]
- autogen.sh: clarify that the script succeeded so it is easier to see in build logs
- tools/nut-usbinfo.pl: find\_usbdevs(): do not explode if find() hits the "." directory; also quickly skip some binary file patterns
- tools/nut-usbinfo.pl: if DEBUG then trace visited directories and files
- include/nutipc.hpp: template-id not allowed for destructor in C\+\+20: clang(-14) insists on having it anyway [#2437]
- include/nutipc.hpp: template-id not allowed for destructor in C++20: C\+\+11 also does not insist on having it [#2437]
- include/nutipc.hpp: template-id not allowed for destructor in C\+\+20 [#2437]

**2.240 2024-05-07 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/nut.dict: update for hwmon\_ina219 man page [#2430]
- docs/nut.dict: apply changes from upstream NUT sources

**2.241 2024-05-06 Jim Klimov <jimklimov+nut@gmail.com>**

- include/nutconf.hpp: annotate (for older C\+\+) the methods which can throw() [#2294]
- include/nutconf.hpp: refactor exception-throwing in Settable<T> getters [#2433]
- include/nutconf.hpp: in Settable<T> operators to "return \_value", throw() if it was not yet set() at all or since last clear() [#2294, #2433]
- common/nutwriter.cpp: serializeCertHost(): try to avoid "may be used uninitialized in this function" warnings [#2294, #2433]
- NEWS.adoc: update the gamatronic news with a note that it fixed a segfault seen in the field [#2427]

**2.242 2024-05-03 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/gamatronic.c: report a response buffer overflow as well as an invalid length string [#2427]
- drivers/gamatronic.c: report a response buffer overflow (should not happen though) [#2427]
- NEWS.adoc: note the update of gamatronic driver [#2427]
- drivers/gamatronic.c: avoid hard-coded buffer length, make it a macro [#2427]

**2.243 2024-05-02 Mike Jager <mike@mikej.net.nz>**

- drivers/gamatronic.c: bump driver version Co-authored-by: Sam Cook <github@sam.net.nz>
- drivers/gamatronic.c: don't trust UPS-provided data length Co-authored-by: Sam Cook <github@sam.net.nz>
- drivers/gamatronic.c: don't strcpy overlapped strings Co-authored-by: Sam Cook <github@sam.net.nz>

**2.244 2024-05-02 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/usbhid-ups.c, NEWS.adoc: complete the support of onlinedischarge\_log\_throttle\_hovercharge setting [#2215, #2423]
  - drivers/usbhid-ups.c: update messages and comments about onlinedischarge\_log\_throttle\_\*charge [#2215, #2423]
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**2.245 2024-05-01 Jan Viktorin <jan.viktorin@gmail.com>**

- data/driver.list.in, docs/man/Makefile.am, docs/man/hwmon\_ina219.txt, drivers/Makefile.am, drivers/hwmon\_ina219.c: Support for INA219 over hwmon on Linux INA219 [1] is a monitor of current. It is accessible via I2C. In the Linux Kernel, it is integrated via hwmon subsystem (thus, the I2C is hidden). When INA219 is installed to monitor current of batteries, it can be used as a simple UPS. This driver is intended to be used with CM4-POE-UPS-BASE [2], a baseboard for Raspberry PI Compute Module 4. With default setting, using 3x3000 mAh batteries, 30% per-CPU avg load, 200 kB/s of reads and writes to SSD disk, the system withstood ~6 hours without power. When remaining ~15 %, it took another 6,5 minutes before it died (that's enough time to usually shutdown gracefully): 20240501 165801 100 NA NA [OL] NA NA 20240501 165831 96 NA NA [OB DISCHRG] NA NA ... 20240501 231306 21 NA NA [OB DISCHRG] NA NA 20240501 231336 19 NA NA [OB DISCHRG] NA NA 20240501 231406 19 NA NA [OB DISCHRG] NA NA 20240501 231436 19 NA NA [OB DISCHRG] NA NA 20240501 231506 17 NA NA [OB DISCHRG] NA NA 20240501 231536 17 NA NA [OB DISCHRG] NA NA 20240501 231606 17 NA NA [OB DISCHRG] NA NA 20240501 231636 14 NA NA [FSD OB DISCHRG LB] NA NA 20240501 231706 13 NA NA [FSD OB DISCHRG LB] NA NA 20240501 231736 13 NA NA [FSD OB DISCHRG LB] NA NA 20240501 231806 13 NA NA [FSD OB DISCHRG LB] NA NA 20240501 231836 10 NA NA [FSD OB DISCHRG LB] NA NA 20240501 231906 11 NA NA [FSD OB DISCHRG LB] NA NA 20240501 231936 11 NA NA [FSD OB DISCHRG LB] NA NA 20240501 232006 9 NA NA [FSD OB DISCHRG LB] NA NA 20240501 232036 8 NA NA [FSD OB DISCHRG LB] NA NA 20240501 232106 7 NA NA [FSD OB DISCHRG LB] NA NA 20240501 232136 5 NA NA [FSD OB DISCHRG LB] NA NA 20240501 232206 4 NA NA [FSD OB DISCHRG LB] NA NA 20240501 232236 2 NA NA [FSD OB DISCHRG LB] NA NA 20240501 232306 0 NA NA [FSD OB DISCHRG LB] NA NA [1] <https://www.ti.com/lit/ds/symlink/ina219.pdf> [2] <https://www.waveshare.com/wiki/CM4-POE-UPS-BASE>
- data/driver.list.in: fix whitespace Fixes: a816677fcf0e ("data/driver.list.in: add CP1350PFCLCD")

**2.246 2024-04-29 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/augeas/Makefile.am: disable back augparse test - only passes on some distros so far [#657] Add make targets for custom testing though
- common/nutwriter.cpp: NutConfConfigWriter::writeConfig(): encase in pragmas to hush warnings about macro code [#2294]
- scripts/augeas/tests/test\_nut.aug, scripts/augeas/tests/test\_nut\_flaky.aug: scripts/augeas/tests/test\_nut\_flaky.aug: added to relocate a test case which passes on some distros and fails on others [#657]
- scripts/augeas/nutupsconf.aug.tpl: avoid matching "/" in default.\* or override.\* expressions [#2294] Such possibility makes augtools-1.12.0 upset (fixed since 1.13.0, see <https://github.com/hercules-team/augeas/issues/668> for details)
- scripts/augeas/nutupsconf.aug.tpl: reshuffle end-of-line chars in regex [#2294]
- include/nutconf.hpp, common/nutwriter.cpp: error: must #include <typeinfo> before using typeid [#2294]
- NEWS.adoc: document that augeas lens have remaining issues
- common/nutwriter.cpp: UpsmonConfigWriter::writeConfig(): try to avoid "may be used uninitialized in this function" warnings [#2294]
- scripts/augeas/tests/test\_nut.aug: add a comment about passing thest that probably should have failed [#657]
- scripts/augeas/tests/test\_nut\_fixme.aug: Add scripts/augeas/tests/test\_nut\_fixme.aug for known-broken corner cases [#657]
- include/nutconf.hpp: BoolInt: avoid "if (b)" constructs in favor of explicit call to operator via "if (b == true)" [#2294]
- include/nutconf.hpp: align new UpsConfiguration entries cosmetically [#2294]
- include/nutconf.hpp: fix comment to reconcile C and shell text [#2294]
- include/nutconf.hpp: handle more "ups.conf" keywords introduced between NUT 2.6.5 and 2.8.2 [#2294]

**2.247 2024-04-27 Jim Klimov <jimklimov+nut@gmail.com>**

- include/nutconf.hpp: document how to discover keywords for UpsConfiguration class [#2294]

**2.248 2024-04-26 Jim Klimov <jimklimov@gmail.com>**

- server/upsd.c, NEWS.adoc: log-trace daemon exit and clarify other messages [#2417]

**2.249 2024-04-26 Jim Klimov <jimklimov+nut@gmail.com>**

- include/nutconf.hpp: refactor UpsConfiguration methods which point to "flag" not just "bool" or "str" entities [#2294] Toss in other GenericUPS\_\* values Sort alphabetically
- include/nutconf.hpp, common/nutconf.cpp: extend setFlag() semantics to true/false with implementation handling remove() where needed [#2294]
- drivers/blazer.c, drivers/blazer\_ser.c, drivers/blazer\_usb.c: drivers/blazer\*: fix "protocol" to be VAR\_VALUE like elsewhere (and de-facto), not VAR\_FLAG
- drivers/nut-ipmipsu.c: reformat commented-away contents of upsdrv\_makevariable() Also restore planned "sensorid" line lost in 71a6c17a09f6ace3a71525e38c10d47daca78e60
- scripts/augeas/tests/test\_nut.aug: update comment [#657]
- scripts/augeas/tests/test\_nut.aug: add a test for comment persistence in config
- scripts/augeas/nutupsconf.aug.tpl, scripts/augeas/tests/test\_nut.aug: scripts/augeas/nutupsconf.aug.tpl: fix and test detection of wildcard keys (default\override)\*
- NEWS.adoc, docs/nut.dict, scripts/augeas/Makefile.am: scripts/augeas/Makefile.am, NEWS.adoc: re-enable augeas "check-local" [#657]
- scripts/augeas/tests/test\_nut.aug: revise handling of "Dummy UPS" in tests [#657, #2294]
- scripts/augeas/Makefile.am: rearrange "if HAVE\_AUGPARSE ⇒ check-local" clause
- scripts/augeas/nutnutconf.aug.in: handle "nut.conf" keywords introduced between NUT 2.6.5 and 2.8.2 [#2294]
- scripts/augeas/nutupsconf.aug.tpl: handle common "ups.conf" keywords introduced between NUT 2.6.5 and 2.8.2 [#2294]
- scripts/augeas/gen-nutupsconf-aug.py.in: bump © years
- scripts/augeas/nutupsdusers.aug.in: reword upsd\_users\_upsmon\_type\_re [#2294]
- scripts/augeas/nutupsmonconf.aug.in: handle "upsmon.conf" keywords introduced between NUT 2.6.5 and 2.8.2 [#2294]
- include/nutconf.hpp, common/nutconf.cpp, common/nutwriter.cpp, tests/nutconf\_parser\_ut.cpp, tests/nutconf\_ut.cpp: typo fix poolFreq\* ⇒ pollFreq\*
- scripts/augeas/nutupsdconf.aug.in: handle "upsd.conf" keywords introduced between NUT 2.6.5 and 2.8.2 [#2294]
- include/nutconf.hpp, tests/nutconf\_ut.cpp: revise UpsConfiguration::setUsbSetAltInterface() logic to not save a bogus -1 [#2294]

**2.250 2024-04-25 Jim Klimov <jimklimov+nut@gmail.com>**

- common/nutconf.cpp, include/nutconf.hpp, tests/nutconf\_ut.cpp: include/nutconf.hpp, common/nutconf.cpp: introduce GenericConfiguration::getDouble() and setDouble() methods [#2294]
  - include/nutconf.hpp, tests/nutconf\_ut.cpp: add "IntHex" fields to UpsConfiguration and test different parsing variants [#2294]
  - include/nutconf.hpp, common/nutconf.cpp: introduce GenericConfiguration::getIntHex() and setIntHex() methods [#2294]
  - include/nutconf.hpp: include/nutconf.hpp, common/nutconf.cpp, common/nutwriter.cpp, tests/nutconf\_ut.cpp: handle and test "ups.conf" keywords introduced between NUT 2.6.5 and 2.8.2 [#2294]
  - include/nutconf.hpp: comment concerns about "default." and "override." supportability in UpsConfiguration class [#2294]
-



- include/nutconf.hpp: refactor class UpsConfiguration methods with idiomatic setBool()/getBool() [#2294]
- include/nutconf.hpp, common/nutconf.cpp: introduce GenericConfiguration::getBoolInt() and setBoolInt() method set [#2294]
- include/nutconf.hpp, common/nutconf.cpp: introduce GenericConfiguration::getBool() and setBool() method set [#2294]
- include/nutconf.hpp, common/nutconf.cpp: introduce GenericConfiguration::getFlag() and setFlag() methods [#2294]
- include/nutconf.hpp: add BoolInt constructors from supported data types [#2294]
- common/nutconf.cpp: wrap long lines and standardize style in method declarations

### 2.251 2024-04-24 Jim Klimov <jimklimov+nut@gmail.com>

- include/nutconf.hpp, common/nutconf.cpp, common/nutwriter.cpp, tests/nutconf\_ut.cpp: handle and test "nut.conf" keywords introduced between NUT 2.6.5 and 2.8.2 [#2294] Note that "nut.conf" options follow shell syntax, unlike most other NUT config files
- common/nutwriter.cpp: introduce helper macro SHELL\_CONFIG\_DIRECTIVEX() [#2294]
- include/nutwriter.hpp, common/nutwriter.cpp: update comments to match classes to config files [#2294]
- conf/nut.conf.sample, docs/man/nut.conf.txt: document NUT\_DEBUG\_LEVEL envvar support

### 2.252 2024-04-23 Jim Klimov <jimklimov+nut@gmail.com>

- include/nutconf.hpp, common/nutconf.cpp, common/nutwriter.cpp, tests/nutconf\_ut.cpp: handle and test "upsmon.conf" keywords introduced between NUT 2.6.5 and 2.8.2 [#2294]
- common/nutwriter.cpp, include/nutconf.hpp: include/nutconf.hpp, include/nutwriter.cpp: extend CertHost class with BoolInt fields
- include/nutconf.hpp: extend BoolInt class with a constructor
- include/nutconf.hpp, tests/nutconf\_parser\_ut.cpp: extend BoolInt class with toString() and << for practical use (and test it) It seems that the assignment operator to string can only be done in the std::string class - a casting operator does not suffice, so the next best things are streaming and explicit methods to emit strings. While at it, also implement assignment into BoolInt objects via <<
- include/nutconf.hpp, tests/nutconf\_parser\_ut.cpp: extend BoolInt class with a bool01 toggle (and test it) Allows to enable/disable comparison of bool value to int 0/1 values.
- include/nutconf.hpp, tests/nutconf\_parser\_ut.cpp: include/nutconf.hpp, common/nutwriter.cpp, tests/nutconf\_ut.cpp: introduce and unit-test a BoolInt helper class [#2402]
- include/nutconf.hpp, common/nutwriter.cpp: introduce struct nut::CertHost (for upsmon.conf...) [#2402]
- tests/nutconf\_parser\_ut.cpp: typo fixes in test names; whitespace rectification

### 2.253 2024-04-22 Jim Klimov <jimklimov@gmail.com>

- docs/nut.dict: drop key words absent in both current NUT and NUT-WEBSITE sources [#2402]

**2.254 2024-04-22 Jim Klimov <jimklimov+nut@gmail.com>**

- tests/nutconf\_ut.cpp: NutConfigUnitTest::testUpsdConfiguration(): use NutConfigUnitTest::check() with the option to discard double-quotes from content (paths) for a fallback comparison. Primarily useful to check this new check() method itself. And because nutwriter.cpp implementation was updated to always use double-quotes for the string values with paths (looking forward to running on MacOS and Windows).
- include/nutconf.hpp, common/nutwriter.cpp, common/nutconf.cpp: handle "upsd.conf" keywords introduced between NUT 2.6.5 and 2.8.2 [#2294]
- include/nutconf.hpp, common/nutwriter.cpp: introduce struct nut::CertIdent (for upsd.conf, upsmon.conf...) [#2402]
- common/nutconf.cpp: implement StringToSettableNumber() for Settable<bool> with NUT boolean keyword support
- tests/nutconf\_ut.cpp: extend NutConfigUnitTest::check() with an option to discard double-quotes from content for a fallback comparison
- include/nutconf.hpp, common/nutconf.cpp, common/nutwriter.cpp, tools/nutconf/nutconf-cli.cpp: rename nut::UpsmonConfiguration ⇒ isPrimary [#840]

**2.255 2024-04-21 Jim Klimov <jimklimov+nut@gmail.com>**

- include/nutconf.hpp: UpsdUsersConfiguration: update comments about existing methods [#2294]

**2.256 2024-04-19 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut\_driver\_enumerator\_main(): do not re-save name when live reload of a driver sufficed [#2410]
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut\_driver\_enumerator\_main(): save new content checksum and name when live reload of a driver sufficed and service is not redefined [#2410]
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut\_driver\_enumerator\_main(): differentiate UPSS (service instance name) and CURR\_DEV (device section name) to reload a driver [#2410]
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut\_driver\_enumerator\_main(): if driver program reload failed, retry verbosely (optionally) to help troubleshooting
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut\_driver\_enumerator\_main(): report if we "Got some changes to reconcile..." with specific service instance names [#2410]
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: clarify that upslst\_savednames\_find\_mismatch() is reserved for future features and is incomplete [#682, #2410]
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: revisit upslst\_savednames\_find\_missing() and upslst\_savednames\_find\_mismatch() [#682, #2410] \* Document better
- Fix envvars used in queries \* Fix matching of TABCHAR
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: log if NEW\_CHECKSUM is empty - that it happened and what it means [#2410]
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in, NEWS.adoc: fix round parentheses to curly braces, so we still recognize NEW\_CHECKSUM for nut-driver reloads [#2410, fallout of #682]

**2.257 2024-04-18 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/nut.dict: remove words only relevant to nut-website (which are parts of larger tokens) [#2402]
  - docs/Makefile.am: clarify the NUT\_SPELL\_DICT used when a spelling check fails [#2402]
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**2.258 2024-04-17 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/nut.dict: remove words only relevant to nut-website [#2402]
  - common/nutipc.cpp: fix include order for common.h
  - NEWS.adoc, drivers/main.c: drivers/main.c: move "-d" CLI option handling also to start of program [fallout of #2259] We consult the value of `dump_data` to decide about foreground mode, but after moving the `-D` option handling (and this decision) upwards to facilitate early debugging, the variable is never modified in time anymore. Thanks for the catch to Eric Clappier and IPM/42ity team.
  - drivers/snmp-ups.c: fix whitespace
  - tests/NIT/nit.sh: rename logged `NIT_SCRIPT_PID`⇒`PID_NIT_SCRIPT`
  - tests/NIT/nit.sh: introduce `testgroup_sandbox_upsmon_master()` and `sandbox_start_upsmon_master()`
  - clients/upsmon.c: clarify log message about absence of explicit `POWERDOWNFLAG` setting [#321]
  - tests/NIT/nit.sh: introduce `upsmon_start_loop()` and `PID_UPSMON` tracking
  - tests/NIT/nit.sh: `generatecfg_upsmon*()`: fix `MONITOR` line markup
  - server/upsd.c: `get_ups_ptr()`: log unresolved name for troubleshooting
  - tests/NIT/nit.sh: `generatecfg_upsmon_trivial()`: fix `SHUTDOWNCMD` to use the expanded `NUT_STATEPATH` value
  - clients/upsmon.c, common/common.c, drivers/main.c, drivers/upsdrvctl.c, include/common.h, server/upsd.c: common/common.c et al: Introduce `NUT_SENDSIGNAL_DEBUG_LEVEL_KILL_SIGOPING` value for `nut_sendsignal_debug_level` [#1782]
  - tests/NIT/nit.sh: avoid stopping daemons when handling `NIT_CASE` =\~ `generatecfg_*\lis*`
  - tests/NIT/nit.sh: avoid removing `TESTDIR` when handling `NIT_CASE` =\~ `generatecfg_*\lis*`
  - tests/NIT/nit.sh: unset `DEBUG_SLEEP` when handling `NIT_CASE` =\~ `generatecfg_*\lis*`
  - tests/NIT/nit.sh: in `NIT.env`, hide "`DEBUG_SLEEP``PATH\LD_LIBRARY_PATH`" settings as comments
  - tests/NIT/nit.sh: fix `updatecfg_upsmon_supplies()`
  - tests/NIT/nit.sh: add `PATH` into generated `NIT.env`
  - tests/NIT/nit.sh: add a warning comment about generated `NIT.env` vs. re-runs of the script
  - common/nutipc.cpp, common/nutstream.cpp, include/nutipc.hpp, include/nutstream.hpp, include/nutwriter.hpp, tests/cpputest-client.cpp, tests/cpputest.cpp, tests/example.cpp, tests/nutclienttest.cpp, tests/nutconf\_parser\_ut.cpp, tests/nutipc\_ut.cpp, tests/nutstream\_ut.cpp: C++ test and other sources: bump and format © headings
  - NEWS.adoc, common/common.c, common/nutipc.cpp, include/common.h: common/common.c et al: introduce a `rootpidpath()` method
  - common/common.c: cache a non-NULL "path" found by `altpidpath()`, `confpath()`, `dflt_statepath()` on the first call Speed up work upon subsequent calls, and be sure to return the same value consistently.
  - tests/NIT/nit.sh: also set `NUT_PIDPATH` for e.g. `upsmon`
  - tests/NIT/nit.sh: allow to run `generatecfg*()` helpers as a `NIT_CASE`
  - tests/NIT/nit.sh: `generatecfg_upsmon_trivial()`: tweak `SHUTDOWNCMD` to record its attempts into a "`$NUT_STATEPATH/upsmon.`file"
  - tests/NIT/nit.sh: extend `generatecfg_upsmon_*()` methods with a way to customize power supply count (served by `MONITOR`, required by `MINSUPPLIES`)
  - tests/NIT/nit.sh: fix comment typo
  - tests/NIT/nit.sh: populate a "`$NUT_CONFPATH/NIT.env`" to facilitate external testing (notably with `DEBUG_SLEEP` and test daemons left running)
-

**2.259 2024-04-16 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc, clients/upsmon.c, clients/upsmon.h, conf/upsmon.conf.sample.in, docs/man/upsmon.conf.txt, docs/nut.dict: clients/upsmon: introduce OBLBDURATION config toggle [#321]
- NEWS.adoc, data/driver.list.in, docs/nut.dict: data/driver.list.in, NEWS.adoc: add support-known for Visench C1K [#2395]
- drivers/nutdrv\_qx.c: fix whitespace

**2.260 2024-04-15 Jim Klimov <jimklimov@gmail.com>**

- docs/nut.dict: update for nut-website

**2.261 2024-04-15 Jim Klimov <jimklimov+nut@gmail.com>**

- .gitignore, Makefile.am, docs/Makefile.am: Makefile.am, docs/Makefile.am: add recipe for spellcheck-report-dict-usage to prepare a \$(NUT\_SPELL\_DICT).usage-report [#2402] Facilitate maintenance of nut-website's spell checking dictionary with words unique to the site sources.
- scripts/installer/Makefile.am: make sure scripts/installer/common/README\_ipp-os-shutdown.adoc-spellchecked is cleaned away
- NEWS.adoc, drivers/libusb0.c, drivers/libusb1.c: drivers/libusb{0,1}.c, NEWS.adoc: avoid spurious syslog of "(nut\_)libusb\_get\_string Success" [#2399]

**2.262 2024-04-13 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/main.c: Hush the fopen(pidfile) messages **before** dealing with "INSTCMD driver.exit" so that we can make that verbose again if dialog started but failed to stop the other driver [#2384, #2392]
- drivers/main.c: change messages around "INSTCMD driver.exit" activity [#2392]
- drivers/main.c: silence compiler warnings about NUT\_STRARG() for "INSTCMD driver.exit" in some builds [#2392]
- drivers/main.c: use nut\_upsdrvquery\_debug\_level verbosity toggle to hush scary noise from attempts to "driver.exit" a sibling [#1782, #2392, #2384]
- drivers/main.c: when looping to SIGTERM a duplicate driver, check if we got a signal ourselves (e.g. user pressed Ctrl+C)
- drivers/upsdrvquery.c, drivers/upsdrvquery.h: drivers/upsdrvquery.{c,h}: extend with nut\_upsdrvquery\_debug\_level verbosity toggle [#1782, #2392, #2384]
- drivers/upsdrvctl.c: stop\_driver(), signal\_driver\_cmd(): use nut\_sendsignal\_debug\_level verbosity toggle to hush initial fopen(pidfile) scary noise [#1782]
- drivers/upsdrvctl.c: annotate "ifdef WIN32" locations waiting for #1916 to be solved

**2.263 2024-04-12 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc, data/cmdvartab, docs/man/nutupsdrv.txt, docs/man/upsdrvctl.txt, drivers/main.c, drivers/main.h, drivers/upsdrvctl.c: drivers/main.{c,h}, drivers/upsdrvctl.c, data/cmdvartab, man pages: Implement "INSTCMD driver.exit" [#2392]
  - drivers/upsdrvctl.c: help(): prepend sections with a blank line
  - drivers/upsdrvctl.c: bump © years and primary authors
  - drivers/main.c: bump © year
  - drivers/main.c: properly indent cmd/pidfile handling and annotate ends of large clauses
-

- drivers/main.c, NEWS.adoc: handle "-FF" to process PID files (and competing driver instances) same as when backgrounding [#2384]
- drivers/main.c: add debug tracing for interactions with PID file and "Duplicate driver instance" [#2384]

## 2.264 2024-04-11 Jim Klimov <jimklimov+nut@gmail.com>

- docs/man/riello\_ser.txt, drivers/riello\_ser.c, NEWS.adoc: port "localcalculation" feature from riello\_ser [#1692, #2390]
- docs/man/riello\_usb.txt: drop extra "EXTRA ARGUMENTS" title; wrap long lines [#1692]

## 2.265 2024-04-07 Jim Klimov <jimklimov+nut@gmail.com>

- docs/developers.txt, docs/nut.dict: document some caveats about using IDEs to develop NUT

## 2.266 2024-04-06 Jim Klimov <jimklimov+nut@gmail.com>

- clients/upsmon.c, server/upsd.c, drivers/main.c, drivers/upsdrvctl.c: fflush(stdout) after printing the NUT program banner [#1783] Forking daemons suffer from unflushed buffers cloned into every fork() and printed for every exit() — of each forked child process.
- clients/upsmon.c: pepper with a few debug printouts
- scripts/systemd/README.adoc: suggest use of systemd drop-ins for unit customization [#1783]
- scripts/misc/notifyme-debug: Introduce scripts/misc/notifyme-debug helper/example
- docs/Makefile.am: update URL to asciidoc issue with --destination-dir [#281] The "asciidoc" github repo was apparently hidden as the python2 codebase, with "asciidoc-py(3?)" surviving with a separate issue/PR/... history. The discussion of interest is available in a snapshot on Archive.Org so far.
- docs/Makefile.am: refine SUFFIXES to not cause "bogus spellcheck call" situations Per experimentation, calls to create e.g. "asciidoc-vars.conf-spellchecked" without a SPELLCHECK\_SRC\_ONE (reported as bogus events) happened because of Makefile SUFFIXES entry "-spellchecked" causing it to be tried as an implicit prerequisite, e.g.: Considering target file *asciidoc-vars.conf*. Looking for an implicit rule for *asciidoc-vars.conf*. Trying pattern rule with stem *asciidoc-vars.conf*. Trying implicit prerequisite *asciidoc-vars.conf-spellchecked*. Found an implicit rule for *asciidoc-vars.conf*. Considering target file *asciidoc-vars.conf-spellchecked*. Looking for an implicit rule for *asciidoc-vars.conf-spellchecked*. Trying pattern rule with stem *asciidoc-vars.conf-spellchecked*. Trying implicit prerequisite *asciidoc-vars.conf-spellchecked,v*. Trying pattern rule with stem *asciidoc-vars.conf-spellchecked*. Trying implicit prerequisite *RCS/asciidoc-vars.conf-spellchecked,v*. Trying pattern rule with stem *asciidoc-vars.conf-spellchecked*. Trying implicit prerequisite *RCS/asciidoc-vars.conf-spellchecked*. Trying pattern rule with stem *asciidoc-vars.conf-spellchecked*. Trying implicit prerequisite *s.asciidoc-vars.conf-spellchecked*. Trying pattern rule with stem *asciidoc-vars.conf-spellchecked*. Trying implicit prerequisite *SCCS/s.asciidoc-vars.conf-spellchecked*. No implicit rule found for *asciidoc-vars.conf-spellchecked*. Finished prerequisites of target file *asciidoc-vars.conf-spellchecked*. No need to remake target *asciidoc-vars.conf-spellchecked*. Finished prerequisites of target file *asciidoc-vars.conf*. Prerequisite *asciidoc-vars.conf-spellchecked* is newer than target *asciidoc-vars.conf*. Must remake target *asciidoc-vars.conf*. Makefile:1302: update target *asciidoc-vars.conf* due to: *asciidoc-vars.conf-spellchecked* ... and indeed it is bogus. This little fix removes the situation and does not preclude the files without .txt exception (license etc.) getting spellchecked or prepped.
- clients/upsmon.c: clarify that lack of a running daemon PID file is OK when checking\_flag (for POWERDOWNFLAG)
- NEWS.adoc, docs/nut.dict: use nut\_sendsignal\_debug\_level verbosity toggle to hush initial fopen(pidfile) scary noise [#1782]
- server/upsd.c: use nut\_sendsignal\_debug\_level verbosity toggle to hush initial fopen(pidfile) scary noise [#1782]
- drivers/main.c: use nut\_sendsignal\_debug\_level verbosity toggle to hush initial fopen(pidfile) scary noise [#1782]
- clients/upsmon.c: use nut\_sendsignal\_debug\_level verbosity toggle to hush initial fopen(pidfile) scary noise [#1782]
- common/common.c, include/common.h: extend with nut\_sendsignal\_debug\_level verbosity toggle [#1782]
- clients/upsmon.c: do not be verbose in loadconfig() if we are just quietly checking killpower flag [#2383]

**2.267 2024-04-05 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc: americanize the verb ending [#321]
- clients/upsmon.c: support "reload\_flag = -1" for help() [#321]
- docs/man/upsmon.conf.txt: suggest use of "upsmon -K" instead of direct lookups into POWERDOWNFLAG file; note recommended locations [#321]
- conf/upsmon.conf.sample.in, docs/man/upsmon.conf.txt: suggest the minimal functional content of upsmon.conf [#321]
- clients/upsmon.c: help(): call loadconfig() quietly and report the value or absence of explicit POWERDOWNFLAG setting [#321]
- clients/upsmon.c: loadconfig(): report absence of explicit POWERDOWNFLAG setting [#321]
- clients/upsmon.c: loadconfig(): report entering the method (and the config file used)
- clients/upsmon.c: loadconfig(): only upslogx() if active nut\_debug\_level is not negative
- clients/upsmon.c: addups(): only upslogx() if active nut\_debug\_level is not negative
- conf/upsmon.conf.sample.in, docs/man/upsmon.conf.txt: document that POWERDOWNFLAG must be configured (no compiled-in default in upsmon) [#321]
- NEWS.adoc: document the situation about POWERDOWNFLAG setting [#321]

**2.268 2024-04-04 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/maintainer-guide.txt: remind to prepare a GitHub label for eventual issues with the new release
- docs/maintainer-guide.txt: remind to verify GPG checksums (and make sure sources are published) [#2381]

**2.269 2024-04-03 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc, drivers/libhid.c: Fix comments/docs around the maxreport flag for usbhid-ups driver, vs. max\_report\_size setting in code

**2.270 2024-04-02 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/maintainer-guide.txt: update release ritual details
- data/driver.list.in: fix some comments with double quotes
- data/driver.list.in: note about comments
- docs/nut.dict: update for nut-website

**2.271 2024-04-01 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/maintainer-guide.txt: update commit instructions for AC\_INIT bumps
  - configure.ac: bump AC\_INIT to development version 2.8.2.1
  - NEWS.adoc, UPGRADING.adoc, docs/docinfo.xml.in: Revert "NEWS.adoc, UPGRADING.adoc, docs/docinfo.xml.in: finalize text before NUT v2.8.2 release" This reverts commit fc9d6211b46955ce7961536cac53a2e10e248584.
  - configure.ac: mark exact NUT v2.8.2 release Happy Fools' Day!
  - docs/maintainer-guide.txt: update instruction
-

- Makefile.am: avoid parallelizing "doc" and "all-recursive" just in case (only follow up by "make doc") Maybe this is behind duplicate man page builds which tend to step on each other's toes.
- docs/maintainer-guide.txt: example command for tag remake
- docs/maintainer-guide.txt: example command fix
- .github/workflows/PyNUTClient.yml, NEWS.adoc, appveyor.yml, configure.ac, docs/docinfo.xml.in, scripts/Windows/build-mingw-nut.sh: Update versions for release of NUT v2.8.2
- drivers/adelsystem\_cbi.c, drivers/al175.c, drivers/apcsmart.c, drivers/apcupsd-ups.c, drivers/asem.c, drivers/bcmxcp.c, drivers/belkin.c, drivers/belkinunv.c, drivers/bestfcom.c, drivers/bestfortress.c, drivers/bestuferrups.c, drivers/bestups.c, drivers/blazer\_ser.c, drivers/blazer\_usb.c, drivers/clone-outlet.c, drivers/clone.c, drivers/dummy-ups.c, drivers/etapro.c, drivers/everups.c, drivers/gamatronic.c, drivers/generic\_gprio\_libgpod.c, drivers/generic\_modbus.c, drivers/genericups.c, drivers/huawei-ups2000.c, drivers/isbmex.c, drivers/ivtsd.c, drivers/liebert-esp2.c, drivers/liebert.c, drivers/macossx-ups.c, drivers/masterguard.c, drivers/metasys.c, drivers/mge-utalk.c, drivers/microdowell.c, drivers/microsol-apc.c, drivers/netxml-ups.c, drivers/nut-ipmipsu.c, drivers/nutdrv\_atcl\_usb.c, drivers/nutdrv\_siemens\_sitop.c, drivers/oneac.c, drivers/optiups.c, drivers/phoenixcontact\_modbus.c, drivers/pijuice.c, drivers/powercom.c, drivers/powerman-pdu.c, drivers/powerpanel.c, drivers/rhino.c, drivers/richcomm\_usb.c, drivers/riello\_ser.c, drivers/safenet.c, drivers/skel.c, drivers/sms\_ser.c, drivers/snmp-ups.c, drivers/socomec\_jbus.c, drivers/solis.c, drivers/triplite.c, drivers/triplite\_usb.c, drivers/triplitesu.c, drivers/upscod2.c, drivers/usbhid-ups.c, drivers/victronups.c: drivers/\*.c: mass-bump DRIVER\_VERSION values due to changes in main.c since NUT v2.8.1 release
- NEWS.adoc, UPGRADING.adoc, docs/docinfo.xml.in: finalize text before NUT v2.8.2 release
- docs/maintainer-guide.txt: top note about (not-)spellchecking this doc
- docs/maintainer-guide.txt: update release instructions, fix typos

## 2.272 2024-03-31 Jim Klimov <jimklimov+nut@gmail.com>

- NEWS.adoc: mention belkin-hid fix as also a regression fix [#2371]
- drivers/riello\_usb.c: upsdrv\_initinfo(): set batt\_volt\_\* limit vars from nominal voltage alignment, then apply from settings or initial reading [#1692]
- drivers/riello\_usb.c: upsdrv\_initinfo(): set batt\_volt\_\* limit vars from settings or initial reading [#1692]

## 2.273 2024-03-26 Jim Klimov <jimklimov+nut@gmail.com>

- tests/Makefile.am: EXTRA\_DIST the test mock "program" source
- NEWS.adoc: document fixes for Belkin/Liebert readings
- tests/getexponenttest-belkin-hid.c, drivers/belkin-hid.c: absorb liebert\_psi5\_line\_voltage\_fun() into common liebert\_line\_voltage\_fun() Hopefully should help more devices than those which serve this or that HID subtree only. Follows up from PR #2369

## 2.274 2024-03-25 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/belkin-hid.c: fix liebert\_line\_voltage\_fun() and friends for 0..500V range (cover 3-pole while we are at it) Not touching liebert\_config\_voltage\_fun() at the moment as have no non-integer examples under hand to test against.
  - tests/getexponenttest-belkin-hid.c: add tests for larger value ranges (over 200V)
  - drivers/belkin-hid.c: comment expectations for liebert\_line\_voltage\_fun() and friends
  - tests/.gitignore, tests/Makefile.am: tests: no longer need a replica of belkin-hid.c in tests/ to build getexponenttest-belkin-hid Suffices that we #include it in the test source, and drivers/ are among include dirs
-



- tests/.gitignore, tests/Makefile.am, tests/driver-stub-usb.c, tests/{getexponenttest.c ⇒ getexponenttest-belkin-hid.c}: tests: rename getexponenttest ⇒ getexponenttest-belkin-hid since it became quite specific to that subdriver source Still, can serve as an example/blueprint for other drivers' tests.
- tests/getexponenttest.c: use our macros to avoid "comparing floating point with == or != is unsafe [-Werror,-Wfloat-equal]" [#2371]
- drivers/belkin-hid.c, tests/Makefile.am, tests/driver-stub-usb.c, tests/getexponenttest.c: drivers/belkin-hid.c: Revert modifications for unit-testing, arrange its build differently [#2371]
- drivers/belkin-hid.c, tests/.gitignore, tests/Makefile.am, tests/driver-stub-usb.c, tests/getexponenttest.c: Add unit tests for belkin-hid `liebert_line_voltage_fun()` and related methods [#2370]
- drivers/belkin-hid.c: whitespace fix
- drivers/belkin-hid.c: update © heading [#2369 follow-up]

### 2.275 2024-03-24 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/riello\_usb.c: extend built-in default battery low/high range to match nutdrv\_qx data for PbAc batteries [#1692]
- drivers/riello\_usb.c, docs/man/riello\_usb.txt: pick battery low/high range via known or configured `battery.voltage.nominal` [#1692]
- drivers/riello\_usb.c, docs/man/riello\_usb.txt: allow configurable `battery.voltage.low/.high` for localcalculation guesstimates [#1692]
- drivers/riello\_usb.c: bump © and DRIVER\_VERSION for "localcalculation" related support [#1692]
- drivers/riello\_usb.c: comment the meaning of logical blocks changed by PR #1692

### 2.276 2024-03-23 Jim Klimov <jimklimov+nut@gmail.com>

- UPGRADING.adoc, NEWS.adoc: mention changes in tools/gitlog2changelog.py.in [#2360, #2366]
- tools/gitlog2changelog.py.in: when `authorMustBeASCII`, only parse str via `unicode()` if we did not shortcut it earlier, and fix a typo in encoding value
- tools/gitlog2changelog.py.in: trace absence of "unicode" type in some python bundles
- NEWS.adoc: Add Liebert PSI5 [#2369]

### 2.277 2024-03-22 Jim Klimov <jimklimov+nut@gmail.com>

- Makefile.am, docs/Makefile.am: use `abs_top_builddir` for wrapper rules
- docs/Makefile.am, docs/man/Makefile.am: clarify default "all" target variants as requiring a prep
- Makefile.am: be sure to prep before the many docs-related targets
- Makefile.am: fix typo for "docs/man" prep for spellcheck target
- Makefile.am: clarify default "all" target variants
- docs/man/Makefile.am: typo fix in comments
- docs/man/apc\_modbus.txt: update comments for `libmodbus\+rtu_usb` builds - with a static library suggestion [#2063]
- Jenkinsfile-dynamatrix: enable "autotools driven build with default configuration ... with fatal warnings" for all branch types Earlier enabled for fightwarn and PRs against stable branches, but not for master-branch builds themselves.
- tools/nut-scanner/scan\_xml\_http.c, tools/nut-scanner/scan\_snmp.c: ignore potentially unreachable code in platforms-dependent range checks Same as 34056dd43261c92e9230e2d18ddf5e8f498d98e9 earlier.



**2.278 2024-03-22 James R. Parks <jrjparks@zathera.com>**

- drivers/belkin-hid.c, drivers/usbhid-ups.c, drivers/usbhid-ups.h: feat: Add support for Liebert PSI5 Adding support for the Liebert PSI5 model of UPS.

**2.279 2024-03-21 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/man/apc\_modbus.txt, docs/nut.dict: update manpage with instructions for USB-capable builds [#2063]
- m4/nut\_check\_libmodbus.m4: make it visible when some libmodbus is found, but does not support libusb while we want it (and will fail NUT configure later) [#2063]

**2.280 2024-03-19 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/installer/make\_package.sh: update comments
- scripts/installer/README.adoc, docs/nut.dict: update about directory layout and contents expected by make\_package.sh
- scripts/installer/Makefile.am, scripts/installer/README.adoc, scripts/installer/nut: scripts/installer: avoid SCM-tracking a symlink to NUT source root

**2.281 2024-03-18 Jim Klimov <jimklimov+nut@gmail.com>**

- Jenkinsfile-dynamatrix: for autotools-only builds, select by OS\_DISTRO (avoid duplicates with OS\_FAMILY)
  - Jenkinsfile-dynamatrix: exclude GCC on OpenBSD 6.5 from autotools CI builds Old compiler that won't hush about warnings, pollutes CI dashboard. Equivalent builds handled by ci\_build.sh are in quiet mode for the first compilation attempt (usually the only one, if all is OK) so these warnings are just not seen by build-log analysis parser.
  - configure.ac, Makefile.am, docs/Makefile.am, tools/gitlog2changelog.py.in: detect if we should mangle ChangeLog.pdf section titles with non-ASCII contributor names
  - docs/Makefile.am: hint to asciidoc/dblatex to trivialize section names into ASCII themselves Inspired by [http://aerostitch.github.io/misc/asciidoc/asciidoc-title\\_uft8.html](http://aerostitch.github.io/misc/asciidoc/asciidoc-title_uft8.html) but did not directly help at least for Ubuntu 14.04 worker NOTE: Fallback suggestion to add --dblatex-opts="--param=latex.encoding=utf8" actually broke the PDF doc builds, not only for ChangeLog.
  - tools/gitlog2changelog.py.in: trivialize author names into plain ASCII Older asciidoc/a2x/dblatex stack fails with non-ASCII characters in section titles (date and commit author become ChangeLog sections). Inspired by: \* [http://aerostitch.github.io/misc/asciidoc/asciidoc-title\\_uft8.html](http://aerostitch.github.io/misc/asciidoc/asciidoc-title_uft8.html) \* <https://stackoverflow.com/questions/51710082/what-does-unicodedata-normalize-do-in-python> \* <https://stackoverflow.com/questions/38697037/how-to-convert-python-2-unicode-function-into-correct-python-3-x-syntax>
  - Makefile.am: make sure that "make all" ends up making all types of docs
  - common/nutconf.cpp, common/nutwriter.cpp, include/nutconf.hpp, tests/nutconf\_ut.cpp, tools/nutconf/nutconf-cli.cpp: nutconf-related C++ sources: deprecate certain terminology and keywords [#840]
  - common/nutconf.cpp, common/nutwriter.cpp, include/nutconf.hpp, tests/nutconf\_parser\_ut.cpp: nutconf-related C++ sources: fix typo in source var names: hotSync ⇒ hostSync
  - common/nutconf.cpp, common/nutwriter.cpp, include/nutconf.hpp, tools/nutconf/nutconf-cli.cpp: nutconf-related C++ sources: add new UPSMON-style notification keywords to vocabulary
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**2.282 2024-03-14 Jim Klimov <jimklimov+nut@gmail.com>**

- Jenkinsfile-dynamatrix: rectify passing of CONFIG\_OPTS [relies on nut/jenkins-dynamatrix#34]
- Jenkinsfile-dynamatrix: wrap unstashing of sources into their own pipeline sub-stage
- Jenkinsfile-dynamatrix: fix passing of (multi-token) DISTCHECK\_FLAGS to autotools build/test variants
- Jenkinsfile-dynamatrix: add a section for direct use of autotools (once per platform) in all stable-branch builds In fallout of PR #2256 we had situations "caused" by tighter integration for NUT CI builds (and developer convenience via ./ci\_build.sh) which were not seen on the NUT CI farm but could bite the common approach of ./autogen.sh && ./configure && make on some (not all) platforms.
- common/nutstream.cpp: avoid pedantic warning about a const/static variable
- tools/nutconf/Makefile.am: apply convenience CCACHE exports like for other compiled sources [#2256]
- Makefile.am, clients/Makefile.am, common/Makefile.am, configure.ac, drivers/Makefile.am, include/Makefile.am, lib/Makefile.am, server/Makefile.am, tests/Makefile.am, tests/NIT/Makefile.am, tools/Makefile.am, tools/nut-scanner/Makefile.am: configure.ac, .am: wherever we export CCACHE\_ envvars for convenience - avoid doing so if they were not set at configure time [#2256]

**2.283 2024-03-07 Jim Klimov <jimklimov+nut@gmail.com>**

- .github/workflows/codeql.yml: revise APT preinstallation \* clang or gcc/g++ depending on matrix.compiler \* collapse other pkgs into one call \* add libneon\*-dev
- .github/workflows/codeql.yml: use C/C++ buids with "native" autogen\configure (and a single run for each config combo)
- .github/workflows/codeql.yml: exile "python" analysis into one "included" matrix cell

**2.284 2024-03-06 Jim Klimov <jimklimov+nut@gmail.com>**

- .github/workflows/codeql.yml: add ./ci\_build.sh options to constrain build/check scenario workload sprawl
- .github/workflows/codeql.yml: make a CodeQL matrix of compiler/NUT\_SSL\_VARIANTS/NUT\_USB\_VARIANTS instead of single fightwarn-all
- .github/workflows/codeql.yml: fix stringification of "ubuntu-latest"
- .github/workflows/codeql.yml: make "ubuntu-latest" formally a part of "matrix.os" for "if" clause
- .github/workflows/codeql.yml: install prerequisite packages and ensure a "BUILD\_TYPE=fightwarn-all ./ci\_build.sh" loop for C/C++ "Autobuild" implementation
- .github/workflows/codeql.yml: non-default C/C++ "Autobuild" implementation
- .github/workflows/codeql.yml, .github/codeql/codeql-config.yml: add "paths" for Python scripts
- Jenkinsfile-dynamatrix: fiddle with BUILD\_WARNFATAL settings
- .github/workflows/codeql.yml: extend with python

**2.285 2024-03-04 Jim Klimov <jimklimov+nut@gmail.com>**

- Jenkinsfile-dynamatrix: fix naming for cross-Windows builds ("Strict C" part is optional)
  - Jenkinsfile-dynamatrix: add a TODO about "completely out-of-tree" builds
  - autogen.sh: in the end of successful execution, lead interactive users to running the ./configure script
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**2.286 2024-03-03 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/systemd/nut-driver-enumerator-daemon-activator.path.in: clarify the unit description (it does not strictly restart the daemon, can reload if running too)
- docs/config-prereqs.txt: clarify that FreeBSD likely does not want to "pkg add openssl" in fact [#2275]
- README.adoc: update phrasing on DigitalOcean and NUT CI farm

**2.287 2024-03-02 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/systemd/nut-server.service.in: summarize LimitNOFILE increase and ExecStartPost to monitor that it was applied, from FTY branch Originates from FTY commits: \* 062d1868fa (Jim Klimov 2018-01-16 13:11:08 +0100) \* 0e28cc865c (Jim Klimov 2018-01-16 13:37:39 +0100) \* e9a67100a0 (Jim Klimov 2018-01-16 13:41:52 +0100)
- tools/nut-scanner/scan\_snmp.c: apply comments from FTY branch
- tools/nut-usbinfopl: quietly skip editor backup files, and those prepared by "git difftool" for comparisons
- scripts/systemd/.gitignore: do not GitIgnore nut-driver.target, it lives in SCM now
- drivers/snmp-ups.c: apply comments and formatting from FTY branch
- drivers/dstate.c: apply comments from FTY branch Originally from commits 9723e08096 and 6909e965a9 (Jan 2017)
- docs/man/nut-scanner.txt: reconcile asciidoc markup with FTY branch
- docs/config-prereqs.txt: reconcile markup with FTY branch
- docs/config-notes.txt: reconcile markup with FTY branch
- common/common.c: reconcile markup with FTY branch
- autogen.sh: reconcile markup with FTY branch
- UPGRADING.adoc: fix basic asciidoc list markup for releases v2.6.x and older
- NEWS.adoc, UPGRADING.adoc: clarify drop of oldmge-shut from NUT codebase
- NEWS.adoc: rephrase the text about Eaton-contributed installer from news prepared in FTY branch
- tools/nut-scanner/nut-scanner.c: bump © years, reconcile with master branch

**2.288 2024-03-01 Yifeng Li <tomli@tomli.me>**

- docs/nut.dict: nut.dict: add model "KRTL" to dictionary.
  - docs/man/huawei-ups2000.txt: huawei-ups2000.txt: add UPS2000-G-3KRTL to the confirmed list A user has reported that UPS2000-G-3KRTL is confirmed working, thus this commit adds it to the list of known-working models. A remark about standard and long runtime variants has also been added.
  - docs/Makefile.am: reminder about missing dictionary when aspell is unavailable When aspell is not available, the cause can either be that aspell itself is not installed, or it has no English dictionary (aspell-en). I've wasted several minutes due to this oversight. Add this reminder in the error message to give clue to future developers.
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**2.289 2024-03-01 Jim Klimov <jimklimov+nut@gmail.com>**

- m4/ax\_c\_pragmas.m4: comment where "-Wcast-function-type-strict" comes from
- tools/nut-scanner/nut-scanner.c: use same conservative base level of USB scan verbosity when scanning all media types (-C) [#2334]
- tools/nut-scanner/scan\_nut\_simulation.c: do not abort if CONFPATH is missing [#2235]
- NEWS.adoc, conf/ups.conf.sample, docs/man/nut\_usb\_addvars.txt, docs/man/ups.conf.txt, docs/nut.dict, drivers/arduino-hid.c, drivers/libshut.c, drivers/libusb0.c, drivers/libusb1.c, drivers/main.c, drivers/powervar-hid.c, tools/nut-scanner/scan\_usb.c: Multiple USB-capable drivers: add ways to tune USB HID config, report, descriptor indexes and in/out endpoints [#2149]
- docs/Makefile.am: comment typo fix
- drivers/usb-common.c: free() USB matcher structures if called again [#2309] e.g. when reconnecting after link loss

**2.290 2024-02-29 Jim Klimov <jimklimov@gmail.com>**

- m4/ax\_c\_pragmas.m4: introduce HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_ADDRESS

**2.291 2024-02-29 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/config-prereqs.txt: clarify libneon.so symlink on OpenBSD
- common/common.c: get\_libname\_in\_dir(): report first found "related" name (if any), if got no hits
- docs/config-prereqs.txt: document hacks to get pip for Python 2.7 ... on systems that only support it partially Courtesy of <https://stackoverflow.com/a/65125295/4715872>
- conf/Makefile.am, data/Makefile.am, data/html/Makefile.am, docs/man/Makefile.am, scripts/Makefile.am, scripts/Solaris/Makefile.am, scripts/Windows/Makefile.am, scripts/devd/Makefile.am, scripts/hotplug/Makefile.am, scripts/installer/Makefile.am, scripts/python/Makefile.am, scripts/systemd/Makefile.am, scripts/udev/Makefile.am, scripts/upsdrvsvccctl/Makefile.am, tests/NIT/Makefile.am: \*/Makefile.am: fix comment referring to "\$(top\_builddir)/install-sh"
- drivers/hidparser.h, drivers/libhid.h, drivers/nutdrv\_qx.h, drivers/serial.h, drivers/snmp-ups.h, drivers/usb-common.h, drivers/usbhid-ups.h, include/common.h, include/nut\_float.h, include/nut\_stdint.h, include/proto.h: /.h: use NUT\_NETVERSION as a header guard for #include "config.h"
- NEWS.adoc: fix for battery\_voltage\_reports\_one\_pack flag handling [#2324]

**2.292 2024-02-28 Jim Klimov <jimklimov+nut@gmail.com>**

- m4/nut\_check\_libltdl.m4: fix detection on OpenBSD
- docs/config-prereqs.txt: clarify how to get pip on OpenBSD
- indent.sh, scripts/HP-UX/makedepot.sh, scripts/Windows/build-mingw-nut.sh, scripts/installer/make\_package.sh, scripts/subdriver/gen-snm-subdriver.sh, scripts/subdriver/gen-usbhid-subdriver.sh: NUT shell scripts: use a better portable shebang for bash interpreter discovery NOTE: Some scripts require BASH syntax; maybe not all of them do (did not revise at this time)
- scripts/HP-UX/makedepot.sh: fix whitespace

**2.293 2024-02-27 Jim Klimov <jimklimov@gmail.com>**

- Makefile.am: ChangeLog: fix shell-scripting typo
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**2.294 2024-02-27 Jim Klimov <jimklimov+nut@gmail.com>**

- include/state.h: include time headers (we use timespec/timeval here)
- configure.ac: report if deliberately avoiding hardlinks for LN\_S\_R implementation
- ci\_build.sh: support CI\_FAILFAST also to bail out from parallel/sequential build\_to\_only\_catch\_errors\_target() logic - ensure parallel builds succeed "as is"
- configure.ac: revise detection of LN\_S\_R
- Makefile.am: avoid what some makes see as a loop for ChangeLog
- Makefile.am: make sure "make ChangeLog" does some work ... even with OpenBSD make implementation
- docs/Makefile.am: produce proper asciidoc markup for ChangeLog.adoc if "FAILED to resolve input or output filename with this make implementation. . ."
- Makefile.am: fix out-of-tree build of ChangeLog file

**2.295 2024-02-27 Denny Page <dennypage@me.com>**

- drivers/nutdrv\_qx.c: Correct access method used for flag battery\_voltage\_reports\_one\_pack

**2.296 2024-02-26 Jim Klimov <jimklimov+nut@gmail.com>**

- tools/nut-scanner/Makefile.am: use libnutwincompat.la where appropriate
- tools/nut-scanner/Makefile.am: fix libnutscan\_la\_LIBADD vs. libnutscan\_la\_LDFLAGS
- common/Makefile.am: define libnutwincompat.la recipe
- common/Makefile.am: annotate automake if/else/endif with the appropriate macro name, and indent Should help with navigation/maintenance of the code base
- common/Makefile.am: pre-define CLEANFILES along with other vars of that sort
- tools/nut-scanner/Makefile.am: annotate automake if/else/endif with the appropriate macro name Should help with navigation/maintenance of the code base
- tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_xml\_http.c: nut-scanner sources : fix leading indentation (SPACES to TABs) to be consistent in the same file
- tools/nut-scanner/Makefile.am: rearrange and deduplicate lines for \$(top\_builddir)/include/nut\_version.h target

**2.297 2024-02-22 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc: note revised recipes [#2318]
  - Makefile.am, clients/Makefile.am, common/Makefile.am, conf/Makefile.am, data/Makefile.am, data/html/Makefile.am, docs/Makefile.am, drivers/Makefile.am, scripts/Makefile.am, scripts/Solaris/Makefile.am, scripts/Windows/Makefile.am, scripts/devd/Makefile.am, scripts/hotplug/Makefile.am, scripts/installer/Makefile.am, scripts/python/Makefile.am, scripts/python-module/Makefile.am, scripts/systemd/Makefile.am, scripts/udev/Makefile.am, scripts/upsdrvsvctli/Makefile.am, server/Makefile.am, tests/Makefile.am, tests/NIT/Makefile.am, tools/nut-scanner/Makefile.am, tools/nutconf/Makefile.am: \*/Makefile.am: be sure to use AM\_MAKEFLAGS and invoke jobserver (\+) everywhere we call another \$(MAKE)
  - docs/Makefile.am: fix AM\_FLAGS ⇒ AM\_MAKEFLAGS
  - scripts/python/module/Makefile.am: fix AM\_FLAGS ⇒ AM\_MAKEFLAGS
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- conf/Makefile.am, data/Makefile.am, data/html/Makefile.am, docs/man/Makefile.am, scripts/Makefile.am, scripts/Solaris/Makefile.am, scripts/Windows/Makefile.am, scripts/devd/Makefile.am, scripts/hotplug/Makefile.am, scripts/installer/Makefile.am, scripts/python/Makefile.am, scripts/systemd/Makefile.am, scripts/udev/Makefile.am, scripts/upsdrvsvctl/Makefile.am, test-s/NIT/Makefile.am: \*/Makefile.am: pass (top\_)(src\build)dir, MKDIR\_P and AM\_MAKEFLAGS of caller into docs/Makefile parsing
- Makefile.am: comment how to maintain list of subdirs for spellchecking TOTTHINK: Do we want to just automate this discovery?
- Makefile.am: use jobserver for spellcheck\* callouts; ensure .prep-src-docs are pre-generated
- Makefile.am, docs/nut.dict, scripts/installer/common/README\_ipp-os-shutdown.adoc: Makefile.am: spellcheck "scripts/installer" too [#2288]
- README.adoc, docs/Makefile.am, ... g\_Host\_Dark\_56px.png ⇒ fosshost\_org\_Host\_Dark\_56px.png}, ... st\_Light\_309px.png ⇒ fosshost\_org\_Host\_Light\_309px.png}, ... Host\_Light\_38px.png ⇒ fosshost\_org\_Host\_Light\_38px.png}, docs/images/ci/jenkins-nut.css, docs/images/ci/jenkins-nut.txt, docs/nut.dict: docs: rename Fosshost logo files to not include a dot in the name ... it upsets some versions of d<sub>l</sub>at<sub>e</sub>x (used in PDF generation) which treat everything after the **first** dot as a file extension.
- ci\_build.sh: do not claim "Could not query git repo" if it was just clean
- docs/Makefile.am, docs/man/Makefile.am, .gitignore: fix back the "-prepped" suffix (with a dash)
- docs/Makefile.am, docs/man/Makefile.am: fix clean-up of \*\_prepped files
- scripts/installer/common/README\_ipp-os-shutdown.adoc: scripts/installer/README\_ipp-os-shutdown.adoc: fix asciidoc list style
- docs/nut.dict, scripts/python/module/README.adoc: scripts/python/module/README.adoc: fix spelling error
- docs/Makefile.am: when touching a \*-spellchecked file, ensure its dir exists This file may be the only (or first) build product, so nobody else made that dir for us!

## 2.298 2024-02-21 Jim Klimov <jimklimov+nut@gmail.com>

- docs/Makefile.am: abolish dependency from spellcheck on .prep-src-docs
- docs/Makefile.am: spellcheck recipes: pass an explicitly empty SPELLCHECK\_SRC list to sub-makes (do not confuse .prep-src-docs dependency)
- docs/Makefile.am: spellcheck recipes: report "pwd" when complaining about bogus paths
- docs/Makefile.am: do not hard-code running dpkg (for diags) everywhere
- docs/Makefile.am, docs/man/Makefile.am: use full path relative to abs\_top\_builddir for .prep-src-docs Facilitate running the docs/Makefile from other dirs (to spell-check their docs)
- docs/nut.dict: learn about "wildcard" (singular)
- docs/Makefile.am, docs/man/Makefile.am: do not "ls" files for PREP\_SRC, suffices to sort\uniq the names in a diferent manner
- docs/Makefile.am, docs/man/Makefile.am: drop shell debug tracing from .prep-src-docs rules
- docs/Makefile.am, docs/man/Makefile.am: chop non-trivial "srcdir" from PREP\_SRC pathnames, if present
- docs/Makefile.am, docs/man/Makefile.am: list PREP\_SRC pathnames starting from builddir as "make" crafts them, not from srcdir
- docs/Makefile.am, docs/man/Makefile.am: try to accomodate different "make" implementations for .prep-src-docs file discovery

**2.299 2024-02-20 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/Makefile.am, docs/man/Makefile.am: only the paths deal in absolutes!
- docs/Makefile.am: depend spellcheck on .prep-src-docs too, for completeness
- docs/Makefile.am, docs/man/Makefile.am: .prep-src-docs: for in-tree builds, cover all PREP\_SRC names even if they do not yet exist
- docs/Makefile.am, docs/man/Makefile.am: revise calling the prep vs. document products again
- .gitignore, docs/Makefile.am, docs/man/Makefile.am: docs/man/Makefile.am, docs/Makefile.am, Makefile.am: use \*.txt\_prepped (with underscore) for suffix rules
- docs/man/Makefile.am, docs/Makefile.am: insist on having a "\$\$(builddir)/.prep-src-docs" ...do not get distracted by one in-tree, if any, when doing out-of-tree builds
- docs/.gitignore: GitIgnore .prep-src-docs\* touch-files
- .gitignore, Makefile.am, docs/Makefile.am, docs/man/Makefile.am: docs/man/Makefile.am, docs/Makefile.am, Makefile.am: avoid hacky rules to pre-call .prep-src-docs; use hacky touch-files instead
- Makefile.am: try to be sure to use the job server for docs-related sub-makes ...when using custom make targets to build specific docs or checks
- docs/man/Makefile.am: enable the opportunistic suffix rule for build products to depend on .prep-src-docs Hopefully avoids duplicate parallel runs of the helper where the make implementation would support it (courtesy above standard requirements).
- docs/Makefile.am, docs/man/Makefile.am: play with VPATH to help prefer PREP\_SRC symlinks
- docs/Makefile.am, docs/man/Makefile.am: when creating PREP\_SRC symlinks, report current workdir (help with relative src/build dirs)
- docs/Makefile.am, docs/man/Makefile.am: when cleaning PREP\_SRC symlinks, be sure to only hit symlinks
- docs/man/Makefile.am: be sure to include LINKMAN\_INCLUDE\_GENERATED into PREP\_SRC
- docs/man/Makefile.am: simplify clean-up
- docs/man/Makefile.am, docs/Makefile.am: rearrange dependencies on .prep-src-docs, avoid sub-makes where we can
- docs/man/Makefile.am, docs/Makefile.am: make sure that "all" target is first

**2.300 2024-02-19 Jim Klimov <jimklimov+nut@gmail.com>**

- tools/nut-scanner/nutscan-display.c: revise use of nutdev\_num in nutscan\_display\_sanity\_check\_serial() Actually rewind it back to the number which the first entry for this device type had in the "continuous numbering" we track for this scan report.
  - docs/man/Makefile.am: fix out-of-tree build check for linkman-driver{,tool}-names.txt recipes
  - docs/Makefile.am, docs/man/Makefile.am: touch .prep-src-docs if called for in-tree builds too
  - docs/Makefile.am, docs/man/Makefile.am: do not hard-depend common targets on .prep-src-docs
  - tools/nut-scanner/nutscan-display.c: convert nutdev\_num and last\_nutdev\_num to size\_t
  - tools/nut-scanner/nutscan-display.c: update comments about methods iterating WHOLE lists, not just parsing one "device"
  - tools/nut-scanner/nutscan-display.c: fix nutdev\_name rendition (it is NOT always a "nut-serialX"!)
  - docs/Makefile.am, docs/man/Makefile.am: PREP\_SRC: symlink from abs\_srcdir to avoid the mess with relative paths and ".." offsets
  - docs/Makefile.am, docs/man/Makefile.am: prefix sub-make calls with "\\" to invoke jobserver
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- docs/Makefile.am, Makefile.am: explicitly "make .prep-src-docs" before calling (possibly parallel) sub-make for docs or docs/man
- docs/Makefile.am, docs/man/Makefile.am: report "Preparing to generate" separately from actually "Generating"
- docs/Makefile.am, docs/man/Makefile.am: augment with .prep-src-docs target for building out-of-tree
- docs/Makefile.am: do not make a "NOTE:..." line into a heading
- Makefile.am: ChangeLog: re-use one from tarball when not building from git
- Makefile.am: call tools/gitlog2changelog.py in SOURCE dir (where git repo is) and use CHANGELOG\_FILE to store the result in BUILD dir
- Makefile.am: add a shortcut to "make ChangeLog.adoc"; fix formal markup if we "failed to generate the ChangeLog" to produce a sane adoc⇒pdf note anyway
- tools/gitlog2changelog.py.in: allow to use CHANGELOG\_FILE="-" for redirect to stdout
- tools/gitlog2changelog.py.in: allow to customize CHANGELOG\_FILE
- tools/nut-scanner/nutscan-display.c: update comments about last\_nutdev\_num

### 2.301 2024-02-17 Jim Klimov <jimklimov+nut@gmail.com>

- docs/config-prereqs.txt: update for LUA package naming on new Ubuntu/Debian distros
- drivers/eaton-ups-pwnm2-mib.c: bump version after edit in be29b to drop values not needed in this fork of the mapping

### 2.302 2024-02-16 Jim Klimov <jimklimov+nut@gmail.com>

- tests/nutipc\_ut.cpp: use NutFile::tmp\_dir() and NutFile::path\_sep() for temporary PID file path construction [#2314]
- include/nutstream.hpp: expose NutFile::tmp\_dir() and NutFile::path\_sep() for good measure
- tests/nutipc\_ut.cpp: NutIPCUnitTest::testSignalSend(): report PID file name and contents when in verbose mode
- tests/nutipc\_ut.cpp: use unique PID filenames for each test run Closes: #2314

### 2.303 2024-02-15 Jim Klimov <jimklimov+nut@gmail.com>

- tests/NIT/nit.sh: introduce upsd\_start\_loop() Improve chances of passing the test suite even on congested CI farm agents
  - tests/nutconf\_ut.cpp: with fixed ABS\_TOP\_SRCDIR for WIN32, un-block config file parsing tests
  - configure.ac: The more slashes - the better! One can never fully escape them!
  - .github/workflows/codeql.yml: update to v3 Due to <https://github.blog/changelog/2024-01-12-code-scanning-deprecation-of-codeql-action-v2/>
  - docs/config-prereqs.txt: fix Windows sub-section heading levels
  - drivers/ever-hid.c: clarify a comment about USB VID 0x0483
  - NEWS.adoc, data/driver.list.in, drivers/cps-hid.c, scripts/upower/95-upower-hid.hwdb: drivers/cps-hid.c et al: add support for Cyber Energy branded devices [#2312]
  - common/nutstream.cpp: NutFile::open(): add a big comment about POSIX/WIN32 (absolute) path concerns Copied from tests, but would hopefully evaporate there eventually as that particular acute issue gets resolved.
  - tests/nutconf\_ut.cpp: add a big comment about POSIX/WIN32 (absolute) path concerns
  - common/nutstream.cpp: checkExistsWritableDir(): add debugging, fix use of access() check
  - configure.ac: fix WIN32 resolution of build/src paths for tests
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**2.304 2024-02-14 Jim Klimov <jimklimov+nut@gmail.com>**

- `configure.ac`: fix up `ABS_TOP_SRCDIR/ABS_TOP_BUILDDIR` for builds of NUT directly on Windows agents
  - `common/nutstream.cpp`: `NutFile::open()`: try to report the filename which was problematic
  - `appveyor.yml`: be sure to have a `NUT_STATEPATH` spelled in a way that is writeable by WIN32 system methods (e.g. not mangled by mingw/msys)
  - `common/nutstream.cpp`: try more locations for `getTmpDirPath()`, particularly on WIN32
  - `tests/nutstream_ut.cpp`: improve chances on parallel CI testing: retry `listen_sock.bind()` a few times; freeze/thaw the writer PID
  - `common/nutstream.cpp`: neuter fallback `localtime_r()`, `gmtime_r()` on mingw builds
  - `configure.ac`: fix `nut_with_debuginfo*="legacy"` to consider flag list snapshots made just after `autoconf` might have mangled them
  - `configure.ac`: to not change `nut_with_debuginfo*` from "no" to "legacy", leave it strictly as caller asked Recent changes are more careful about the "LEGACY FALLBACK" application. Let users ask for it explicitly though.
  - `common/nutstream.cpp`: `NutFile(anonymous_t)`: trace the attempted `m_tmp_dir` and filename (if known) in the exception (so far WIN32 code path)
  - `common/nutstream.cpp`: `NutFile(anonymous_t)`: use tmp file as binary in both POSIX and WIN32 code
  - `common/nutstream.cpp`: `NutFile(anonymous_t)`: pre-zero filename buffer
  - `common/nutstream.cpp`: `getTmpDirPath()`: return `"/tmp"` not `"/var/tmp"` by default
  - `common/nutstream.cpp`: `getTmpDirPath()`: comment about a `C\+\\+17` equivalent to maybe call later
  - `common/nutstream.cpp`: `:NutFile(anonymous_t)`, `getTmpDirPath()`: use ASCII char variants of Windows path related methods
  - `configure.ac`: typo fix (`--with-cppunit`  $\Rightarrow$  `--enable-cppunit`) in messages
  - `NEWS.adoc`, `docs/nut.dict`: `NEWS.adoc`: document "configure --with-debuginfo" possibility [[#2310](#)]
  - `m4/nut_report_feature.m4`: adjust `NUT_REPORT_COMPILERS` to note about debug optimizations
  - `configure.ac`: move `CONFIG_C(XX)FLAGS` definition back down to where we check `AC_PROG_C*` macros
  - `configure.ac`: rename `C(XX)FLAGS_ORIG` to `CONFIG_C(XX)FLAGS` to avoid conflict with m4 scripts and to maintain similarly to `CONFIG_FLAGS`
  - `configure.ac`: move stashing of `CFLAGS_ORIG/CXXFLAGS_ORIG` higher in the script; only do it if they are not yet set (and do set them if re-entering for an in-place build)
  - `configure.ac`: add `C(XX)FLAGS_ORIG` tracing printouts to where we check `nut_with_debuginfo`
  - `configure.ac`: hide `C(XX)FLAGS_(BEFORE\|AFTER)_ACPROG` tracing printouts; move "LEGACY DEFAULT FALLBACK" `CFLAGS` to the same block where we check `AC_PROG_C*`
  - `configure.ac`: fix typo in shell test
  - `configure.ac`: avoid needless quoting in `AC_MSG_RESULT()` printouts
  - `configure.ac`: do not mangle `C(XX)FLAGS` added by autotools; just stash and consult original values when deciding `--with-debuginfo` behavior
  - `configure.ac`: rearrange mangling of `CFLAGS` and `CXXFLAGS` by autotools defaults (optimizations/debug barged in) and our script
  - `m4/nut_report_feature.m4`: adjust `NUT_REPORT_COMPILERS` to note about debug optimizations
-

- configure.ac: move CONFIG\_C(XX)FLAGS definition back down to where we check AC\_PROG\_C\* macros
- configure.ac: rename C(XX)FLAGS\_ORIG to CONFIG\_C(XX)FLAGS to avoid conflict with m4 scripts and to maintain similarly to CONFIG\_FLAGS
- configure.ac: move stashing of CFLAGS\_ORIG/CXXFLAGS\_ORIG higher in the script; only do it if they are not yet set (and do set them if re-entering for an in-place build)
- configure.ac: add C(XX)FLAGS\_ORIG tracing printouts to where we check nut\_with\_debuginfo
- configure.ac: hide C(XX)FLAGS\_(BEFORE|AFTER)\_ACPROG tracing printouts; move "LEGACY DEFAULT FALLBACK" CFLAGS to the same block where we check AC\_PROG\_C\*
- NEWS.adoc, docs/nut.dict: NEWS.adoc: document "configure --with-debuginfo" possibility [#2290]
- configure.ac: fix typo in shell test
- configure.ac: avoid needless quoting in AC\_MSG\_RESULT() printouts
- configure.ac: do not mangle C(XX)FLAGS added by autotools; just stash and consult original values when deciding --with-debuginfo behavior
- configure.ac: rearrange mangling of CFLAGS and CXXFLAGS by autotools defaults (optimizations/debug barged in) and our script

### 2.305 2024-02-13 Jim Klimov <jimklimov+nut@gmail.com>

- configure.ac: avoid autoconf-added debug/optimization settings
  - configure.ac: allow to --enable-cppunit=force for dev-testing
  - common/nutstream.cpp, common/Makefile.am: augment getTmpDirPath() with NUT altpidpath() support
  - common/nutstream.cpp: drop fflush() for sockets, not applicable type
  - common/nutstream.cpp: refactor getTmpDirPath() with checkExistsWritableDir() helper
  - configure.ac: avoid autoconf-added debug/optimization settings
  - include/nutstream.hpp: make flush() methods in the NutStream classes part of the interface API
  - common/nutstream.cpp, include/nutstream.hpp, tests/nutstream\_ut.cpp: introduce flush() methods in the classes; use in NutFile stream tests between write() and read() parts [#2293] WIN32 builds failed due to lack of flush() and read an empty temporary file. Apparently the OS does not read() from a queued write() buffer/FS cache for a file.
  - common/nutstream.cpp, include/nutstream.hpp: track NutSocket domain and type (e.g. AF\_INET and SOCK\_STREAM) Also sanity-check if they fit when used.
  - common/nutstream.cpp: avoid use of hard-coded temporary path; fix WIN32 use-case [#2293] In WIN32 builds, ::tmpfile() tries to write to C:\ root dir and usually has no permissions to do so. Here we actively probe common envvars for temporary directories (or also use a WIN32 syscall for the effect) to try and get a realistic TMPDIR. TODO: Consider NUT statepath/(alt)pidpath... maybe not available in tests though. Probe if the chosen dir actually exists?
  - tests/nutstream\_ut.cpp: use global "verbose" setting to trace readTestData()/writeTestData() helpers
  - tests/cpptest.cpp, tests/nutstream\_ut.cpp: let individual tests see the global "verbose" setting from CLI
  - tests/nutstream\_ut.cpp: Revert "tests/nutstream\_ut.cpp: let the destructor alone close() the bound socket" This reverts commit f93c31fa9a5804d8aadbefb0cfb98e0cc03b6e7d.
  - configure.ac: allow to --enable-cppunit=force for dev-testing
  - common/nutstream.cpp: fix NutSocket calls to read/write/close/connect methods to use our WIN32/POSIX friendly wrappers
  - tests/nutstream\_ut.cpp: let the destructor alone close() the bound socket
  - tests/nutstream\_ut.cpp: getFreePort(): use sock.close() with exceptions on errors right away
-

**2.306 2024-02-12 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac, tests/Makefile.am: define CPPUNIT\_NUT\_CXXFLAGS properly
  - configure.ac: if we apply nut\_with\_debuginfo\_CXX, avoid separate settings for CPPUNIT\_NUT\_CXXFLAGS debugging
  - configure.ac: separate internally nut\_with\_debuginfo into nut\_with\_debuginfo\_C vs. nut\_with\_debuginfo\_CXX
  - configure.ac, ci\_build.sh: introduce --with-debuginfo (BUILD\_DEBUGINFO) setting
  - ci\_build.sh: empty BUILD\_TYPE is not an "error", fix the warning message
  - ci\_build.sh: add "TAKING SHORTCUT" to re-generate if current configure script syntax is broken
  - appveyor.yml: try to print "make check" post-mortem details with a subshell It is surprisingly difficult to do in-line scripts for Windows via YAML
  - configure.ac, tests/Makefile.am: define CPPUNIT\_NUT\_CXXFLAGS properly
  - configure.ac: if we apply nut\_with\_debuginfo\_CXX, avoid separate settings for CPPUNIT\_NUT\_CXXFLAGS debugging
  - appveyor.yml: Revert "appveyor.yml: use double-quotes to wrap bash calls (windows shell is quirky with single quotes)" This reverts commit abf2a9e24e2d122f10c6b74121439f88a43f1d57.
  - tests/nutstream\_ut.cpp: on IWN32, use WSStartup() before socket methods
  - include/nutipc.hpp, tests/nutipc\_ut.cpp: accomodate the likes of OSX where sigemptyset() is a macro
  - appveyor.yml: use double-quotes to wrap bash calls (windows shell is quirky with single quotes)
  - ci\_build.sh: empty BUILD\_TYPE is not an "error", fix the warning message
  - tests/nutipc\_ut.cpp: testSignalRecvQuick(): avoid switch/case over an enum Avoids warning about "enumeration values not explicitly handled in switch: ..."
  - appveyor.yml: print trace files if "make check" failed
  - tests/cpptest.cpp: avoid segfault with debug-trace progress printer and certain compiler optimizations
  - tests/cpptest.cpp: be sure to avoid debug-trace segfaults if "test" is NULL
  - tests/nutstream\_ut.cpp: avoid forked helper continuing with another copy of tests
  - configure.ac: separate internally nut\_with\_debuginfo into nut\_with\_debuginfo\_C vs. nut\_with\_debuginfo\_CXX
  - ci\_build.sh: add "TAKING SHORTCUT" to re-generate if current configure script syntax is broken
  - configure.ac, ci\_build.sh: introduce --with-debuginfo (BUILD\_DEBUGINFO) setting
  - tests/nutipc\_ut.cpp: be sure to caught\_signals.clear() early in testSignalRecv\*()
  - tests/nutipc\_ut.cpp, tests/nutconf\_ut.cpp: register each test separately to trace them better
  - tests/cpptest.cpp: be sure to flush the printout of starting test name before churning CPU on it
  - tests/nutstream\_ut.cpp: try to actively probe an available port number for the test
  - tests/nutipc\_ut.cpp: separate tests about received signal count (rapid-fire) and order (staggered)
-

**2.307 2024-02-10 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac: warn early if building with mingw and strict/ansi C/C++ mode
- drivers/mge-hid.c: fix includes and defines for WIN32 build with strict C89
- common/common.c: avoid "FOR loop initial declarations" (are only allowed in C99 or C11 mode) for a WIN32 codepath
- server/netssl.c: include common.h⇒config.h first
- drivers/riello\_ser.c: include common.h⇒config.h first
- drivers/riello.c: include common.h⇒config.h first
- server/sockdebug.c: include common.h⇒config.h first
- drivers/snmp-ups.h: rearrange commented-away code
- drivers/riello\_ser.c: rearrange commented-away code
- clients/upsmon.c, drivers/dstate.c, drivers/eaton-pdu-marlin-mib.c, drivers/main.c, drivers/nutdrv\_qx.c, drivers/snmp-ups.c, drivers/tripplite\_usb.c, drivers/upsdrvctl.c, drivers/upsdrvquery.c, scripts/Windows/DriverInstaller/wdi-simple.c, server/conf.c, server/pipedebbug.c, server/sstate.c: Fix comment style from double-slash to C89 compatible
- common/strptime.c: fix indentations and comment style
- drivers/nutdrv\_qx\_ablerex.c: rearrange commented-away code
- common/strptime.c: use NUT config.h
- drivers/pijuice.c: indent nested #if/#endif macros for readability
- clients/cgilib.c: include common.h⇒config.h first; be sure to have stdio.h for snprintf()
- docs/developers.txt: extend notes about NUT CI farm hosting (with DigitalOcean) [#2192]
- docs/developers.txt, docs/nut.dict: docs/developers.txt: extend notes about baseline supported C/C++ standards
- UPGRADING.adoc, NEWS.adoc: mention fixed C/C++ standard support in builds
- tests/generic\_gpio\_ustest.c: "int main()" requires a return value
- tests/generic\_gpio\_ustest.c, tests/generic\_gpio\_liblocal.c: avoid "FOR loop initial declarations" (are only allowed in C99 or C11 mode) A little fallout for recent fix of actually doing C89 bulids via ci\_build.sh
- configure.ac, m4/nut\_compiler\_family.m4: extend sensitivity for "-std=..." to also cover "-ansi" option
- ci\_build.sh: update comment for "ignored" BUILD\_WARNOPT and BUILD\_WARNFATAL settings when BUILD\_TYPE is empty
- Jenkinsfile-dynamatrix: constrain cross-mingw builds to GNU C standard by default (Strict C seems broken on OS side)
- drivers/raritan-px2-mib.c: fix NULL from string to pointer (raritanpx2\_outlet\_status\_info[] sentinel) Closes: #2304
- drivers/raritan-px2-mib.c: add a comment about daisy-chain features anticipated by this vendor MIB
- drivers/raritan-px2-mib.c: add more values to raritanpx2\_outlet\_status\_info[] Found per <https://www.circitor.fr/Mibs/Html/P/-PDU2-MIB.php#SensorStateEnumeration>
- drivers/delta\_ups-mib.c: fix typo for "split-phase" UPS type mapping Closes: #2302
- Jenkinsfile-dynamatrix: constrain cross-mingw builds to GNU C standard by default (Strict C seems broken on OS side)

**2.308 2024-02-09 Jim Klimov <jimklimov@gmail.com>**

- drivers/tripplite\_usb.c: update comments and logging for unit id matcher

**2.309 2024-02-09 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/sms\_ser.c, clients/upssched.c: avoid "FOR loop initial declarations" (are only allowed in C99 or C11 mode) A little fallout for recent fix of actually doing C89 builds via ci\_build.sh
  - m4/nut\_compiler\_family.m4: fix detection of a compiler standard already requested by caller
  - tests/NIT/nit.sh: support NIT\_CASE=isBusy\_NUT\_PORT for troubleshooting
  - tests/NIT/nit.sh: isBusy\_NUT\_PORT(): check known sockets also with "ss" tool
  - tests/NIT/nit.sh: isBusy\_NUT\_PORT(): do not test for non-emptiness of /proc/net/tcp\* (they have contents AND are reported empty on some distros)
  - tests/NIT/nit.sh: isBusy\_NUT\_PORT(): add log\_debug() tracing about detected or not detected information
  - tests/NIT/nit.sh: make sure log\_debug() never errors out
  - tests/NIT/nit.sh: support NIT\_CASE=isBusy\_NUT\_PORT for troubleshooting
  - tests/NIT/nit.sh: isBusy\_NUT\_PORT(): check known sockets also with "ss" tool
  - tests/NIT/nit.sh: isBusy\_NUT\_PORT(): do not test for non-emptiness of /proc/net/tcp\* (they have contents AND are reported empty on some distros)
  - tests/NIT/nit.sh: isBusy\_NUT\_PORT(): add log\_debug() tracing about detected or not detected information
  - tests/NIT/nit.sh: make sure log\_debug() never errors out
  - drivers/sms\_ser.c, clients/upssched.c: avoid "FOR loop initial declarations" (are only allowed in C99 or C11 mode) A little fallout for recent fix of actually doing C89 builds via ci\_build.sh
  - ci\_build.sh: refine CANBUILD\_NUTCONF handling vs. CXXFLAGS="-std=..."
  - tests/nutstream\_ut.cpp: try to fix the use of really random port numbers (again)
  - tests/nutipc\_ut.cpp: try to fix the occasional fault of testSignalRecv() - also with USER1 after USER2 (and a sleep)
  - tests/nutipc\_ut.cpp: try to fix the occasional fault of testSignalRecv()
  - m4/nut\_compiler\_family.m4: fix detection of a compiler standard already requested by caller
  - drivers/eaton-pdu-marlin-mib.c, drivers/hpe-pdu-mib.c: drivers/\*-mib.c: fix "open" to "opened" (again) for dry contact states Re-apply commit d3b6ea4d89 to modernized codebase of PR #2285 and newly cover drivers/hpe-pdu-mib.c as well
  - drivers/baytech-mib.c, drivers/eaton-ups-pwnm2-mib.c, drivers/huawei-mib.c: drivers/\*-mib.c: clean up typos for PR #2285
  - drivers/tripplite\_usb.c: typo fix in formatting string
  - common/nutstream.cpp, include/nutstream.hpp: NutFile class: refactor constructor with access\_t mode to not use tmpnam() [#2295] The method for NutFile::tmpName() was private and only used in this constructor, and relied on the unsafe tmpnam() method to openx() the resulting file with a given mode. With this change, the file is created via tmpfile() and freopen()'ed with the desired mode. Downside: name inherently unknown. Upside: auto-deletion of the temporary file. Closes: #2295
  - common/nutstream.cpp, include/nutstream.hpp: NutFile class: refactor strAccessMode() helper into a separate method [#2295]
  - common/nutstream.cpp: NutFile class: take more care about empty m\_name or null m\_impl values (sanity-checks etc.)
  - common/nutstream.cpp, include/nutstream.hpp: wrap some long exception-printing lines
  - tools/nutconf/nutconf-cli.cpp: rearrange getMode() default handling Avoid claims that "control reaches end of non-void function [-Wreturn-type]"
  - tools/nutconf/Makefile.am, tools/nutconf/{nutconf.cpp ⇒ nutconf-cli.cpp}: tools/nutconf/nutconf.cpp: rename to nutconf-cli.cpp to reduce ambiguity
-

- tests/Makefile.am, tests/{nutconf.cpp ⇒ nutconf\_parser\_ut.cpp}: tests/nutconf.cpp: rename to nutconf\_parser\_ut.cpp to reduce ambiguity
- drivers/triplite\_usb.c: harden the int types used to detect and report unit id
- NEWS.adoc: update for triplite\_usb unit id matcher [#2297]

### 2.310 2024-01-31 sapireli <114778791+sapireli@users.noreply.github.com>

- drivers/triplite\_usb.c: Fix for undefined upsid in config small fix restoring matching when upsid is undefined in config closes #2282

### 2.311 2024-01-30 Jim Klimov <jimklimov+nut@gmail.com>

- tests/cpptest.cpp: initialize random number generator with srand() Ensure better that the ports used by nutstream\_ut.cpp can end up random.
- common/nutwriter.cpp: avoid UPSD\_DIRECTIVEX and UPSMON\_DIRECTIVEX macros claiming "unreachable code" warnings
- tests/nutstream\_ut.cpp: make use of HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_DEPRECATED\_DECLARATIONS to fix warnings on CentOS7 (older clang, older cppunit)
- m4/ax\_c\_pragmas.m4: introduce HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_DEPRECATED\_DECLARATIONS
- tools/nutconf/nutconf.cpp: getMode(): wrap potentially unreachable de-enumeration code into pragmas
- drivers/snmp-ups-helpers.c: convert to info\_lkp\_fun\_vp2s() and info\_lkp\_sentinel
- tests/nutstream\_ut.cpp: use CPPUNIT\_ASSERT\_MESSAGE with prepared C++ string, not inlined
- tests/nutstream\_ut.cpp: troubleshoot listen\_sock.bind(m\_listen\_address) hiccups
- tests/nutstream\_ut.cpp: nutconf related tests: CPPUNIT\_MACROS raise warnings (for older compilers/distros), try some workarounds
- common/nutconf.cpp, tools/nutconf/nutconf.cpp: nutconf related code: where we use pragmas for "-Wcovered-switch-default", do also use "-Wunreachable-code" (for older compilers)
- tests/nutstream\_ut.cpp: troubleshoot writer\_exit!=0
- tests/nutipc\_ut.cpp: not all shells have "test" with two equality chars
- tests/nutstream\_ut.cpp: cast the random() port number to uint16\_t

### 2.312 2024-01-29 Jim Klimov <jimklimov+nut@gmail.com>

- include/nutipc.hpp, include/nutstream.hpp: Revert "nutconf related headers: tell clang to ignore "unknown" \retval in Doxygen comments" This reverts commit 9ec19231ced75d942955a31108613cecd4a75fe. Some clang versions warn about unknown pragma. Not a quick win...
  - NEWS.adoc: document addition of nutconf [#2290]
  - NEWS.adoc: update info about installer
  - drivers/snmp-ups.h: do not lose function pointers in non-DMF builds with info\_lkp\_fun\_s2l() and info\_lkp\_nuf\_vp2s()
  - drivers/eaton-ats16-nm2-mib.c: rename eaton\_ats16\_ambient\_drycontacts\_info[] ⇒ eaton\_ats16\_nm2\_ambient\_drycontacts\_info[] to match other table naming patterns
  - drivers/eaton-ats16-nm2-mib.c: wrap new EMP002 snmp\_info\_t entries into snmp\_info\_default() macros
-

- NEWS.adoc, docs/nut.dict: NEWS.adoc: document recently addressed issues and merged PRs that would be part of NUT v2.8.2 eventually
- configure.ac: tell clang to ignore "unknown" \retval in Doxygen comments
- include/nutipc.hpp, include/nutstream.hpp: nutconf related headers: tell clang to ignore "unknown" \retval in Doxygen comments
- common/nutipc.cpp: disarm NUT fallbacks for time methods (as may be defined in our common.h) for C++ (notably on mingw)
- tests/nutstream\_ut.cpp: ensure random() symbol for WIN32 builds
- common/nutstream.cpp: comment not-use of wincompat.h wq
- tools/nutconf/nutconf.cpp: avoid bogus warnings about uninitialized map
- common/Makefile.am: add NETLIBS to libnutconf (esp. needed on WIN32 builds)
- tests/nutstream\_ut.cpp: Randomize bind(port) to try avoiding collisions in parallel testing

### 2.313 2024-01-28 desertwitch <24509509+desertwitch@users.noreply.github.com>

- clients/upsmon.c: debug information to rectify unwanted OFF criticalities

### 2.314 2024-01-28 Jim Klimov <jimklimov+nut@gmail.com>

- common/nutipc.cpp, common/nutstream.cpp, include/nutipc.hpp, tests/nutconf\_ut.cpp, tests/nutipc\_ut.cpp, tests/nutstream\_ut.cpp: nutconf related codebase: neuter code parts that need WIN32 implementations (process IPC, etc.)
  - common/nutstream.cpp: radically avoid the hassle with sa\_family type
  - include/nutstream.hpp, common/nutstream.cpp: currently neuter AF\_UNIX support code under WIN32
  - common/nutstream.cpp: add a comment about NutFile::m\_tmp\_dir (should not be hard-coded in the long run)
  - common/nutconf.cpp: rename "system" and "word" vars to avoid clashes with some build environments
  - common/nutstream.cpp: adapt socket operations to Win/Lin cross builds, similar to nutclient.cpp solution
  - common/nutconf.cpp, common/nutipc.cpp, common/nutstream.cpp, common/nutwriter.cpp, include/nutipc.hpp, include/nutstream.hpp, tests/nutconf.cpp, tests/nutipc\_ut.cpp, tests/nutstream\_ut.cpp: nutconf related sources: revise include file lists and order (config.h, WIN32...)
  - drivers/snmp-ups.h: reshuffle in main codebase for unrecognized DMF macros
  - scripts/installer/Makefile.am, .../{README\_ipp-os-shutdown.txt ⇒ README\_ipp-os-shutdown.adoc}: scripts/installer/Makefile.am: spellcheck common/README\_ipp-os-shutdown.adoc
  - scripts/installer/Makefile.am: EXTRA\_DIST all the files
  - configure.ac, scripts/Makefile.am, scripts/installer/Makefile.am, scripts/installer/{README.txt ⇒ README.adoc}: scripts/installer/Makefile.am: added to distribute and spell-check README.adoc
  - scripts/installer/README.txt: comments on nutconf and authors
  - m4/nut\_check\_libgd.m4: fall back to checking with explicit -lpng in the LDFLAGS loop
  - docs/nut.dict: Update nut.dict
-



**2.315 2024-01-27 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/snmp-ups.h: adapt to non-DMF SNMP NUT driver builds
- scripts/subdriver/gen-snmplib-subdriver.sh: bump version and copyright
- drivers/apc-ats-mib.c, drivers/apc-epdu-mib.c, drivers/apc-pdu-mib.c, drivers/bestpower-mib.c, drivers/delta\_ups-mib.c, drivers/eaton-pdu-nlogic-mib.c, drivers/eaton-pdu-pulizzi-mib.c, drivers/emerson-avocent-pdu-mib.c, drivers/hpe-pdu3-cis-mib.c, drivers/huawei-mib.c, drivers/raritan-pdu-mib.c, drivers/raritan-px2-mib.c, drivers/xppc-mib.c: drivers/\*-mib.c: convert versions to at least double digits
- Makefile.am, clients/Makefile.am, common/Makefile.am, data/html/Makefile.am: \*/Makefile.am: standardize to have the export commands on top, just after title comment line
- scripts/python/module/Makefile.am: avoid "make clean" invalidating the NUT build area Otherwise we can not find the test script (generated from .in by configure normally)
- common/nutconf.cpp: NutConfigParser::parseConfig(): reshuffle base vs. overridden call for parser to work again Fine piece of C++ magic and inheritance. Wrong call got called.
- NEWS.adoc: untie OFF from linestate in upsmon FSD [#2279]

**2.316 2024-01-26 desertwitch <24509509+desertwitch@users.noreply.github.com>**

- clients/upsmon.c: fix offstate not being a requirement for a critical UPS on OFF

**2.317 2024-01-25 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac: use -Wno-exit-time- destructors and -Wno-global-constructors with clang++ to not worry about "(static) const something" variables
- tests/nutconf.cpp, tests/nutipc\_ut.cpp: nutconf related tests: avoid "old-style cast" usage
- tests/nutconf\_ut.cpp, tests/nutipc\_ut.cpp, tests/nutstream\_ut.cpp: nutconf related tests: avoid "no out-of-line virtual method definitions" (weak-vtables)
- tests/nutipc\_ut.cpp: declare the override of nut::Signal::Handler methods
- tests/nutconf.cpp, tests/nutconf\_ut.cpp, tests/nutipc\_ut.cpp, tests/nutstream\_ut.cpp: nutconf related tests: declare the override of CPPUNIT methods
- tests/nutstream\_ut.cpp: fix cast of size\_t vs. double for "pivot"
- tools/nutconf/nutconf.cpp: avoid shadowing a class property with method arg name
- tools/nutconf/nutconf.cpp: mark almost all methods in the tool as static
- tools/nutconf/nutconf.cpp: align "us\_timeout" to be "useconds\_t" not "long" (per libnutscan API evolution)
- common/nutconf.cpp: cast around std::getline() for parenthesized syntax Why didn't the original author just receive the word into target string?... e.g.: std::getline(system, monitor.upsname, @); std::getline(system, monitor.hostname);
- common/nutconf.cpp, include/nutconf.hpp: include/nutconf.{c,h}.hpp: align port type to uint16\_t (not plain or short int as mismatched in older code)
- common/nutwriter.cpp: include/nutwriter.hpp: comment away a currently unused static method
- common/nutstream.cpp: include/nutstream.hpp: align size\_t vs ssize\_t maths
- common/nutipc.cpp: include/nutipc.hpp: align size\_t vs ssize\_t maths
- common/nutipc.cpp: include/nutipc.hpp: align array deleter with allocator



- include/nutipc.hpp: align templated class destructor name with class name
- include/nutstream.hpp: decorate unimplemented methods which only throw with noreturn (for C\+\+11 and newer)
- common/nutwriter.cpp, include/nutconf.hpp, tools/nutconf/nutconf.cpp: include/nutconf.hpp: align UpsmonConfiguration::notifyFlag type with clients/upsmon.h (notifylist→flags) Note that here we have "unsigned int" and there a plain "int" at the moment; but even with short signed ints we currently do not have too many values :) This fix also drops a warning about shortening the cast when assigning from a temporary "unsigned int flags" in UpsmonConfigParser::onParseDirective()
- common/nutconf.cpp: include/nutconf.cpp: NutConfigParser::parseConfig(): explicitly handle all enum values in switch/case (and allow "default" to be safe)
- common/nutconf.cpp: include/nutconf.cpp: NutConfigParser::parseConfig(): be explicit about the infinite loop Assignment of tok=parseToken() does not return a boolean (nor even a nullptr) so should not be a while(...) condition by itself.
- common/nutconf.cpp: include/nutconf.cpp: avoid annotating a switch/case fallthrough
- common/nutconf.cpp: include/nutconf.hpp: err on the safe side by having a default handler in a currently exhaustive switch(enum)
- common/nutconf.cpp, common/nutipc.cpp, common/nutstream.cpp, include/nutipc.hpp: nutconf related sources: avoid "old-style cast" usage
- include/nutconf.hpp: avoid naming clash for Token "type" and "str" properties vs. method args
- common/nutconf.cpp, common/nutipc.cpp, common/nutstream.cpp, common/nutwriter.cpp, include/nutconf.hpp, include/nutipc.hpp, include/nutstream.hpp, include/nutwriter.hpp: nutconf related sources: avoid "no out-of-line virtual method definitions" (weak-vtables)
- common/nutconf.cpp, common/nutipc.cpp, common/nutstream.cpp, include/nutconf.hpp, include/nutipc.hpp, include/nutstream.hpp, tests/nutipc\_ut.cpp, tests/nutstream\_ut.cpp, tools/nutconf/nutconf.cpp: nutconf related changes: avoid NULL ("zero as null pointer constant"), use "::" prefix for C methods
- include/nutipc.hpp: avoid naming clash for QUIT signal and command

### 2.318 2024-01-25 Jim Klimov <jim@jimklimov.com>

- tools/nut-usbinfopl: avoid dying on unknown file name patterns (e.g. \*-mib.c.bak), just warn and skip them

### 2.319 2024-01-24 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/eaton-ats16-nm2-mib.c, drivers/eaton-pdu-marlin-mib.c, drivers/eaton-ups-pwnm2-mib.c, drivers/mge-mib.c, drivers/raritan-pdu-mib.c: drivers/\*-mib.c: convert to use info\_lkp\_sentinel, info\_lkp\_default et al wrapping
- ci\_build.sh: update that nutconf is now fair game for builds and tests
- configure.ac: default --with-nutconf=auto (based on have\_cxx11) and add it to --with-all
- drivers/apc-ats-mib.c, drivers/apc-epdu-mib.c, drivers/apc-mib.c, drivers/apc-pdu-mib.c, drivers/baytech-mib.c, drivers/bestpower-mib.c, drivers/compaq-mib.c, drivers/cyberpower-mib.c, drivers/delta\_ups-mib.c, drivers/eaton-ats16-nm2-mib.c, drivers/eaton-ats16-nmc-mib.c, drivers/eaton-ats30-mib.c, drivers/eaton-pdu-genesis2-mib.c, drivers/eaton-pdu-marlin-mib.c, drivers/eaton-pdu-nlogic-mib.c, drivers/eaton-pdu-pulizzi-mib.c, drivers/eaton-pdu-revelation-mib.c, drivers/eaton-ups-pwnm2-mib.c, drivers/eaton-ups-pxg-mib.c, drivers/emerson-avocent-pdu-mib.c, drivers/hpe-pdu-mib.c, drivers/hpe-pdu3-cis-mib.c, drivers/huawei-mib.c, drivers/ietf-mib.c, drivers/mge-mib.c, drivers/netvision-mib.c, drivers/raritan-pdu-mib.c, drivers/raritan-px2-mib.c, drivers/xppc-mib.c: drivers/\*-mib.c: convert to use snmp\_info\_sentinel wrapping
- drivers/apc-ats-mib.c, drivers/apc-epdu-mib.c, drivers/apc-mib.c, drivers/apc-pdu-mib.c, drivers/baytech-mib.c, drivers/bestpower-mib.c, drivers/compaq-mib.c, drivers/cyberpower-mib.c, drivers/delta\_ups-mib.c, drivers/eaton-ats16-nm2-mib.c, drivers/eaton-ats16-nmc-mib.c, drivers/eaton-ats30-mib.c, drivers/eaton-pdu-genesis2-mib.c, drivers/eaton-pdu-marlin-mib.c, drivers/eaton-pdu-nlogic-mib.c, drivers/eaton-pdu-pulizzi-mib.c, drivers/eaton-pdu-revelation-mib.c, drivers/eaton-ups-pwnm2-mib.c, drivers/eaton-ups-pxg-mib.c, drivers/emerson-avocent-pdu-mib.c, drivers/hpe-pdu-mib.c, drivers/hpe-pdu3-cis-mib.c, drivers/huawei-mib.c, drivers/ietf-mib.c, drivers/mge-mib.c, drivers/netvision-mib.c, drivers/raritan-pdu-mib.c, drivers/raritan-px2-mib.c, drivers/xppc-mib.c: drivers/\*-mib.c: convert to use snmp\_info\_default() wrapping

- drivers/apc-ats-mib.c, drivers/apc-epdu-mib.c, drivers/apc-mib.c, drivers/apc-pdu-mib.c, drivers/baytech-mib.c, drivers/bestpower-mib.c, drivers/compaq-mib.c, drivers/cyberpower-mib.c, drivers/delta\_ups-mib.c, drivers/eaton-ats16-nm2-mib.c, drivers/eaton-ats16-nmc-mib.c, drivers/eaton-ats30-mib.c, drivers/eaton-pdu-marlin-mib.c, drivers/eaton-pdu-nlogic-mib.c, drivers/eaton-pdu-pulizzi-mib.c, drivers/eaton-pdu-revelation-mib.c, drivers/eaton-ups-pwnm2-mib.c, drivers/eaton-ups-pxg-mib.c, drivers/emerson-avocent-pdu-mib.c, drivers/hpe-pdu-mib.c, drivers/hpe-pdu3-cis-mib.c, drivers/huawei-mib.c, drivers/ietf-mib.c, drivers/mge-mib.c, drivers/netvision-mib.c, drivers/raritan-pdu-mib.c, drivers/raritan-px2-mib.c, drivers/xppc-mib.c: drivers/\*-mib.c: convert to use info\_lkp\_sentinel, info\_lkp\_default et al wrapping
  - drivers/snmp-ups.h: introduce also info\_lkp\_nuf\_vp2s(), info\_lkp\_nuf\_s2l() and info\_lkp\_fun\_s2l() wrappers
  - scripts/subdriver/gen-snmp-subdriver.sh, drivers/snmp-ups.h: introduce short-hand snmp\_info\_sentinel and info\_lkp\_sentinel
  - scripts/subdriver/gen-snmp-subdriver.sh: convert C table generator to propose info\_lkp\_default(...) instead of fixed C structure items
  - scripts/subdriver/gen-snmp-subdriver.sh: convert C table generator to propose snmp\_info\_default(...) instead of fixed C structure items
  - drivers/snmp-ups.h: introduce wrappers to handle optionally-defined NULL fields for snmp\_info\_t and info\_lkp\_t [DMF]
  - scripts/subdriver/gen-snmp-subdriver.sh: start subdriver versions as 0.01 for double digits
  - tests/nutconf\_ut.cpp: update expectations for current ups.conf.sample default contents
  - configure.ac, tests/nutconf\_ut.cpp: rearrange to use ABS\_TOP\_SRCDIR and ABS\_TOP\_BUILDDIR in the test program
  - tools/nutconf/nutconf.cpp: adapt nutscan\_scan\_usb() to libnutscan API evolution
  - common/nutstream.cpp: address a run-time warning about tempnam()
  - include/nutipc.hpp: Process::Child<M>::wait(): fix error-case check
  - common/nutstream.cpp: formatIPv{4,6}addr(): code typo fix (bit maths, not boolean expressions!)
  - common/nutconf.cpp, include/nutconf.hpp, include/nutipc.hpp, include/nutstream.hpp, include/nutwriter.hpp: nutconf related sources: fix implicit copy/move operator warnings - use explicit defaults, destructors, and clarify overrides
  - common/nutconf.cpp: NutConfigParser::parseConfig(): fix switch/case that did not check all enum values
  - common/nutconf.cpp, include/nutconf.hpp, include/nutipc.hpp, include/nutstream.hpp, tools/nutconf/nutconf.cpp: nutconf related sources: use NUT\_UNUSED\_VARIABLE() to decorate the code where needed
  - common/nutconf.cpp, common/nutwriter.cpp, include/Makefile.am, include/{nutconf.h ⇒ nutconf.hpp}, include/nutwriter.hpp, tests/nutconf.cpp, tests/nutconf\_ut.cpp, tools/nutconf/nutconf.cpp: Rename include/nutconf.h ⇒ .hpp as a C++ specific source file
  - common/nutconf.cpp, common/nutstream.cpp, common/nutwriter.cpp, include/nutconf.h, include/nutipc.hpp, include/nutstream.hpp, include/nutwriter.hpp, tests/nutconf.cpp, tests/nutconf\_ut.cpp, tools/nutconf/nutconf.cpp: nutconf related sources: fix typos and wording in comments
  - common/nutipc.cpp, common/nutstream.cpp, include/nutconf.h, include/nutipc.hpp, include/nutstream.hpp, tools/nutconf/nutconf.cpp: nutconf related sources: fix deprecated throw() declarations to not be used since C++11 They are invalid in C++17 as the code did fence against; however C++11 already shows them as deprecated, and with "fatal warnings" this bites!
  - common/nutconf.cpp: NutConfigParser::parseConfig(): pre-initialize "sep" to avoid surprises
  - common/nutconf.cpp, common/nutipc.cpp, common/nutstream.cpp, common/nutwriter.cpp, include/nutconf.h, include/nutipc.hpp, include/nutstream.hpp, include/nutwriter.hpp, tests/nutconf.cpp, tests/nutconf\_ut.cpp, tests/nutipc\_ut.cpp, tests/nutstream\_ut.cpp, tools/nutconf/nutconf.cpp: nutconf related sources: fix whitespace style
  - tools/nutconf/nutconf.cpp: fix file description
  - tools/nutconf/Makefile.am: update Makefile markup and comments
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**2.320 2024-01-23 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/eaton-pdu-marlin-mib.c: marlin\_device\_count\_fun(): decorate a NUT\_UNUSED\_VARIABLE()

**2.321 2024-01-21 Jim Klimov <jimklimov+nut@gmail.com>**

- server/netssl.c: fix decl-after-statement NUT\_UNUSED\_VARIABLE() implementation counts as a code statement, so should be after true declarations.

**2.322 2024-01-21 Duncan Webb <duncan@linuxowl.com>**

- server/netssl.c: Fix possible buffer overrun calls to PR\_GetErrorText Removed call to NSS\_NoDB\_Init as certfile will be defined. Copy paste from upscli change to ssl\_init.

**2.323 2024-01-20 Jim Klimov <jimklimov+nut@gmail.com>**

- clients/upsmon.c: fix comment wording [#840, #2240]
- scripts/upower/95-upower-hid.hwdb: update for recent changes in drivers/belkin-hid.c [#2271]

**2.324 2024-01-19 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: upsconf\_getSection\_content(): optimize string emptiness checks
- NEWS.adoc, docs/nut.dict: update for nut-driver-enumerator [#682]
- scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: fix systemd\_findSavedDeviceName() to use common SYSTEMD\_CONFPATH variable
- drivers/belkin-hid.c: add Liebert PowerSure PST UPS productid [#2271]
- docs/ci-farm-lxc-setup.txt: errata for virt-top too new to work with LXC

**2.325 2024-01-19 Charles Lepple <clepple+nut@gmail.com>**

- drivers/belkin-hid.c: fix Liebert GXT4 UPS productid Follow-up to 3e1b00ec3ff105a05e67ae8602996cf7436f816b which intended to add the ID after NUT v2.7.4 release, but fell prey to copy-paste typo (got 0x0004 instead of intended 0x0000): commit 3e1b00ec3ff105a05e67ae8602996cf7436f816b Date: Sat Jun 3 12:24:15 2017 -0400 usbhid-ups: add Liebert GXT4 USB VID:PID [10AF:0000] Source: <http://lists.aliases.debian.org/pipermail/nut-upsuser/2017-June/010682.html> Voltage and ConfigVoltage appear to be scaled improperly per the debug output.

**2.326 2024-01-18 Vytautas Survila <vytautas.survila@gmail.com>**

- drivers/nutdrv\_qx.c: use correct read\_size for *too much data read* message

**2.327 2024-01-18 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/security.txt: typography: fix quoting style
  - docs/security.txt, docs/man/upsd.conf.txt, docs/man/upsmon.conf.txt: stress that multi-word "Certificate Name" values should be double-quoted; fix examples [#2265]
  - docs/man/upsmon.conf.txt: fix multi-paragraph attachments in the very nested MONITOR section Blanks and pluses are the trick: <https://stackoverflow.com/a/52164722/4715872>
  - docs/man/upsd.conf.txt: fix multi-paragraph attachments in sections
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**2.328 2024-01-15 Vytautas Survila <vytautas.survila@gmail.com>**

- drivers/nutdrv\_qx.c: return actual number of bytes we copied to buffer

**2.329 2024-01-15 Jim Klimov <jimklimov@gmail.com>**

- drivers/apc-mib.c: bump DRIVER\_VERSION to double-digits 1.60 is more future-proof than 1.7 (after 1.6) :)

**2.330 2024-01-15 Christian Manal <manal@uni-bremen.de>**

- drivers/apc-mib.c: update MIB values

**2.331 2024-01-14 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/man/Makefile.am: neuter the fictive nutscan\_add\_commented\_option\_to\_device.html recipe for now [#2221]
- docs/man/Makefile.am: fix nutscan\_add\_commented\_option\_to\_device.html recipe for BSD make [#2221]

**2.332 2024-01-13 Jim Klimov <jimklimov+nut@gmail.com>**

- tools/nut-scanner/scan\_usb.c: code after declarations [#2221]
- docs/man/nutscan\_add\_option\_to\_device.txt, docs/man/Makefile.am: fix markup for a single asciidoc text describing several command names [#2221] <https://asciidoc-py.github.io/userguide.html#X1>
- tools/nut-scanner/nut-scanner.c: disambiguate and un-shadow link\_detail\_level variables [#2221]

**2.333 2024-01-12 Jim Klimov <jimklimov+nut@gmail.com>**

- tools/nut-scanner/scan\_usb.c, UPGRADING.adoc: make use of nutscan\_add\_commented\_option\_to\_device() for link-specific details if not suggesting to use them directly [#2221]
  - NEWS.adoc, docs/man/nutscan\_add\_option\_to\_device.txt, tools/nut-scanner/nutscan-device.c, tools/nut-scanner/nutscan-device.h, tools/nut-scanner/nutscan-display.c: libnutscan API: add a concept of commented-away suggested option values instead of hacks in prepared config data [#2221]
  - NEWS.adoc: reword the entry about desktop integration [#2205]
  - NEWS.adoc, docs/man/nut-scanner.txt, docs/man/nutscan\_scan\_usb.txt, docs/nut.dict, tools/nut-scanner/Makefile.am, tools/nut-scanner/README.adoc, tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_usb.c: nut-scanner: change "-U" handling to tweak generated device configuration section level of detail [#2221]
  - NEWS.adoc, drivers/Makefile.am: drivers/Makefile.am, NEWS.adoc: fix builds --without-usb [#2262]
  - docs/nut.dict, NEWS.adoc: document recent improvements to nut-scanner
  - docs/man/nut-scanner.txt: change markup for code and output examples [#2247]
  - NEWS.adoc: debug level initialized earlier now [#2259] Checked for a similar need in other programs - nut-scanner does it already, and others start with the getopt() loop.
  - drivers/main.c: move NUT\_DEBUG\_LEVEL and "-D" CLI option handling to start of program [#2259] This allows to use upsdebugx() in early initialization methods like upsdrv\_makevartable()
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**2.334 2024-01-11 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc: add info about #2259
- drivers/main.c: if nutdrv\_qx is built for serial-only support but asked to use USB options at run-time, help the user about the discrepancy [#2259]
- drivers/libusb0.c, drivers/libusb1.c: drivers/libusb{0,1}.c: report in debug trace which USB implementation is used [#2259]

**2.335 2024-01-03 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/images/ci/jenkins-nut.css: update hosting logo from FH to DO [#2192] Imported from NUT CI farm where this CSS was edited in the beginning of the month
- tests/NIT/nit.sh: testcase\_sandbox\_nutscanner\_list(): adjust generated section names to nut-scanner evolution
- tools/nut-scanner/scan\_avahi.c: fix indentation to match surrounding code [#2246]
- tools/nut-scanner/Makefile.am: bump libnutscan version due to scan\_nut\_simulation.c [#2246]
- tools/nut-scanner/scan\_avahi.c: fix indentation to match surrounding code [#2246]
- tools/nut-scanner/Makefile.am: bump libnutscan version due to scan\_nut\_simulation.c [#2246]
- scripts/Windows/DriverInstaller/README.adoc: update link to libwdi
- docs/ci-farm-lxc-setup.txt: note path to DHCP lease file for troubleshooting

**2.336 2024-01-02 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac: fix NUT\_AM\_MAKE\_CAN\_EXPORT test syntax for Solaris ksh
- Makefile.am, clients/Makefile.am, common/Makefile.am, configure.ac, drivers/Makefile.am, include/Makefile.am, lib/Makefile.am, server/Makefile.am, tests/Makefile.am, tests/NIT/Makefile.am, tools/Makefile.am, tools/nut-scanner/Makefile.am: \*/Makefile.am, configure.ac: constrain makefile exports to implementations where NUT\_AM\_MAKE\_CAN\_EXPORT
- Makefile.am, clients/Makefile.am, common/Makefile.am, drivers/Makefile.am, include/Makefile.am, lib/Makefile.am, server/Makefile.am, tests/Makefile.am, tests/NIT/Makefile.am, tools/Makefile.am, tools/nut-scanner/Makefile.am: **/Makefile.am: export PATH and CCACHE\_ envvars** to be used during rebuilds
- configure.ac: remember PATH\_DURING\_CONFIGURE
- configure.ac: track selected CCACHE\_\* envvars as "precious"
- configure.ac: allow to specify --with-CCACHE\_NAMESPACE=... for the build
- docs/Makefile.am, docs/cables/Makefile.am, docs/man/Makefile.am, include/Makefile.am, scripts/python/module/Makefile.am, tests/NIT/Makefile.am, tools/Makefile.am, tools/nut-scanner/Makefile.am: \*/Makefile.am: add top line descriptions where missing
- ci\_build.sh: fix reporting of used envvars (avoid shell functions/aliases/...)

**2.337 2023-12-24 Jim Klimov <jimklimov+nut@gmail.com>**

- tools/nut-scanner/scan\_nut\_simulation.c: Fix declaration-after-code in scan\_nut\_simulation.c

**2.338 2023-12-24 Arnaud Quette <arnaud.quette@free.fr>**

- tools/nut-scanner/scan\_nut\_simulation.c: nut-scanner: actually simplify simulation scan code Reimplement scan algorithm, and remove non-portable scandir code. Get back to my early implementation, using opendir/readdir, as in common/common.c. This works and is portable!
- tools/nut-scanner/scan\_nut\_simulation.c: nut-scanner: simplify simulation scan code Remove non-portable directory-filtering code, since there is no actual need for it, and very few chances of false positive results.
- tools/nut-scanner/scan\_nut\_simulation.c: nut-scanner: don't require alphasort Sorting is not needed, and despite alphasort being supported since: \* Since glibc 2.10: (\_POSIX\_C\_SOURCE >= 200809L) \* || Glibc versions <= 2.19: (\_BSD\_SOURCE || \_SVID\_SOURCE) it seems still not supported on some platforms.
- tools/nut-scanner/nut-scan.h, tools/nut-scanner/scan\_nut\_simulation.c: nut-scanner: fix nutscan\_scan\_nut\_simulation prototype Please CI and add void args

**2.339 2023-12-23 Arnaud Quette <arnaud.quette@free.fr>**

- docs/man/nut-scanner.txt: nut-scanner: spell checks
- docs/man/nut-scanner.txt, tools/nut-scanner/nutscan-device.c, tools/nut-scanner/nutscan-device.h, tools/nut-scanner/nutscan-display.c: nut-scanner: fix device-name collisions in generated conf When nut-scanner is called separately, to scan different buses, it will generate similar names for each of these: \* USB scan > [nutdev1] > ... \* NUT scan > [nutdev1] > ... \* ... As a result, one can't just redirect nut-scanner outputs directly to ups.conf, without a *sed* hack workaround. Solution: simply refine the device names, like "nutdev-<method><id>". Ex: nutdev-usb1, nutdev-usb2, nutdev-nut1, nutdev-snmp1, nutdev-simulation1, ...

**2.340 2023-12-22 Arnaud Quette <arnaud.quette@gmail.com>**

- NEWS.adoc, data/driver.list.in, docs/developer-guide.txt, docs/man/Makefile.am, docs/man/nut-scanner.txt, docs/man/nutscan\_init.txt, docs/man/nutscan\_scan\_nut\_simulation.txt, tools/nut-scanner/Makefile.am, tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-device.c, tools/nut-scanner/nutscan-device.h, tools/nut-scanner/nutscan-init.c, tools/nut-scanner/nutscan-init.h, tools/nut-scanner/scan\_avahi.c, tools/nut-scanner/scan\_nut\_simulation.c: nut-scanner: detect and configure NUT simulation devices (#2246) \* nut-scanner: detect and configure NUT simulation devices Provide an additional nut-scanner "-n \ --nut\_simulation\_scan" option to detect and configure dummy simulation (.dev & .seq) from the default \$sysconfdir. Also advertise NUT Simulation Devices in HCL. This should standardize and streamline the use of nut-scanner as an automatic detection and configuration tool. Closes: #networkupstools/nut/issues/2242
- NEWS.adoc, data/driver.list.in, tools/nut-scanner/scan\_avahi.c, tools/nut-scanner/scan\_nut.c: 2236 nut scanner reports non existent driver for nut discovery (#2245) \* Start to advertise NUT support of itself \* nut-scanner: NUT scan (old and Avahi) points at dummy-ups the previously pointed driver "nutclient" does not exist yet. At least points to a sane working default \* Document in NEWS Closes: #networkupstools/nut/issues/2236

**2.341 2023-12-15 Jim Klimov <jim@jimklimov.com>**

- docs/ci-farm-lxc-setup.txt, docs/nut.dict: suggest dependency packages for LXC and QEMU

**2.342 2023-12-10 Matt Merhar <mattmerhar@protonmail.com>**

- NEWS.adoc, drivers/libusb0.c, drivers/libusb1.c: drivers/libusb{0,1}.c: reset driver parameters while enumerating With an Arduino Leonardo compatible board attached alongside a CyberPower CP1500PFCLCD, usbhid-ups would incorrectly conclude that there was no kernel driver attached to the UPS and then fail subsequent steps accordingly. The cause is the global usb\_communication\_subdriver\_t struct; when a subdriver (e.g. arduino-hid) sets different values during the enumeration loop, they're not set back to defaults afterwards, causing issues with other subdrivers (e.g. cps-hid). So, if a subdriver doesn't match, set a selection of fields back to their default values using the newly added nut\_usb\_subdriver\_defaults() before the next attempt.

**2.343 2023-12-10 Jim Klimov <jimklimov+nut@gmail.com>**

- README.adoc: use DigitalOcean referral campaign identifier in badge URL [#2192]
- tools/nut-scanner/scan\_usb.c: hide bcdDevice logic behind ifdef WITH\_BCD\_DEVICE [#2221] Earlier approaches to only partially comment away code trigger static analysis warnings here or there, and we do not want to fully drop it here just yet.
- tools/nut-scanner/scan\_usb.c: comment away bcdDevice which we do not currently use [#2221]

**2.344 2023-12-10 Arnaud Quette <Arnaud.Quette@free.fr>**

- tools/nut-scanner/scan\_usb.c: nut-scanner USB: disable some output results Some additional fields, like *device* (device number / path), may introduce more issues than solving. Hence disable these

**2.345 2023-12-05 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc, docs/man/usbhid-ups.txt, docs/nut.dict, drivers/usbhid-ups.c: drivers/usbhid-ups.c, docs/man/usbhid-ups.txt, NEWS.adoc introduce "onlinedischarge\_log\_throttle\_hovercharge" setting [#2215]
- drivers/usbhid-ups.c, docs/man/usbhid-ups.txt, NEWS.adoc: introduce "onlinedischarge\_log\_throttle\_sec" setting and/or throttling by changes of battery.charge [#2214]
- NEWS.adoc, docs/man/usbhid-ups.txt, docs/nut.dict, drivers/usbhid-ups.c: drivers/usbhid-ups.c, docs/man/usbhid-ups.txt, NEWS.adoc deprecate "onlinedischarge" in favor of "onlinedischarge\_onbattery" option name [#2213]
- docs/man/upsmon.txt: update with NOTCAL state
- conf/upsmon.conf.sample.in: update NOTIFYFLAG examples

**2.346 2023-12-01 Jim Klimov <jimklimov+nut@gmail.com>**

- data/driver.list.in: note that "NEW Keor Multiplug" is not supported as of 2023 ... per "mrc989" report on IRC channel
- server/conf.c, clients/upsmon.c: align logged DEBUG\_MIN NUM casing and wording with the setting/docs
- clients/upsmon.c: when POLLFAIL\_LOG\_THROTTLE\_MAX>0 takes effect, report also how often it would report in seconds [#2207]
- clients/upsmon.c: align logged POLLFAIL\_LOG\_THROTTLE\_MAX casing with the setting/docs
- NEWS.adoc, clients/upsmon.c: clients/upsmon.c: forget poll-failure error-states and the counts involved when we reload config [#2207]
- clients/upsmon.c: markup/style typo fix
- NEWS.adoc, clients/upsmon.c, conf/upsmon.conf.sample.in, docs/man/upsmon.conf.txt, docs/man/upsmon.txt: clients/upsmon.c, NEWS.adoc: fix an off-by-one error with POLLFAIL\_LOG\_THROTTLE\_MAX loop counting [#2207]
- clients/upsmon.c, NEWS.adoc: Forget POLLFAIL\_LOG\_THROTTLE\_MAX before configuration reload [#2207]
- clients/upsmon.c: clarify wording about POLLFAIL\_LOG\_THROTTLE\_MAX "standard behavior"
- docs/man/upsmon.txt, docs/man/upsmon.conf.txt, conf/upsmon.conf.sample.in: clarify wording about POLLFAIL\_LOG\_THROTTLE\_MAX "standard behavior"

**2.347 2023-11-28 Jim Klimov <jim@jimklimov.com>**

- m4/nut\_check\_aspell.m4: check if aspell can use the discovered tex module (binary arch match) and try to fall back to built-in defaults if not Either way, avoid an unusable `make spellcheck` which just reports a massive failure.



**2.348 2023-11-27 Laurent Bigonville <bigon@bigon.be>**

- NEWS.adoc, scripts/python/app/NUT-Monitor-py3qt5.in: Set the DesktopFileName in scripts/python/app/NUT-Monitor-py3qt5 This binds the application with the desktop file and allow the Desktop to display the proper icon and application name.

**2.349 2023-11-27 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/python/app/NUT-Monitor-py2gtk2.in: leave a comment to suggest using g\_set\_prgname() Suggested by Laurent Bigonville Currently I've failed to find a test system with Py2 \+ GTK2 preinstalled (the one I had was updated and half the old dependencies are missing), and did not quickly find python syntax examples for it as well.
- scripts/python/app/NUT-Monitor-py3qt5.in: take a cautious approach to setDesktopFileName()
- NEWS.adoc, docs/nut.dict: checking and formatting for the entry about DesktopFileName in NUT-Monitor-py3qt5 [#2205]

**2.350 2023-11-27 Jim Klimov <jim@jimklimov.com>**

- m4/nut\_check\_aspell.m4: run a live check if the detected aspell is useful
- m4/nut\_check\_aspell.m4: AC\_SUBST detected paths after checking if detected aspell is useful

**2.351 2023-11-25 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/python/app/NUT-Monitor, NEWS.adoc: check if implementation scripts exist before looking into them for a PYTHON\* version Closes: #2201
- NEWS.adoc: note the fix for #2198
- scripts/python/app/NUT-Monitor, NEWS.adoc: fix typo (qt3⇒qt5) Closes: #2199

**2.352 2023-11-24 Axel Gembe <axel@gembe.net>**

- configure.ac, include/timehead.h: build: Add a fallback for timegm on Windows / MINGW MINGW headers do not provide a timegm implementation but there is a \_mkgmttime which does the same: <https://learn.microsoft.com/en-us/cpp/c-runtime-library/reference/mkgmtime-mkgmtime32-mkgmtime64>

**2.353 2023-11-23 Xin LI <delphij@FreeBSD.org>**

- drivers/libusb1.c: Remove unnecessary validation for bus\_num The libusb\_get\_bus\_number() function serves as a simple accessor for the bus number of the opaque device struct. Unlike libusb\_get\_port\_number(), it does not have the ability to convey errors back to the caller, and a bus number of 0 is a valid value. Therefore, any validation around bus\_num is redundant. This commit removes the unnecessary validation code related to bus\_num.

**2.354 2023-11-23 Axel Gembe <axel@gembe.net>**

- drivers/apc\_modbus.c: apc\_modbus: Add target outlet group to load.\* and shutdown.\* commands Maybe this is needed, needs to be confirmed.
- drivers/apc\_modbus.c: apc\_modbus: Always store times in UTC This changes \_apc\_modbus\_date\_from\_nut to use timegm instead of mktime which does not add the current time zone information. This fixes dates that are off-by-one compared to what was set.
- drivers/apc\_modbus.c: apc\_modbus: Fix re-read of values at the end of setvar The for loop searching for the correct register map kept on looping after finding the value which caused the apc\_map variable to potentially point to the wrong register map. This can cause the re-read of the set value at the end of the function to fail.
- drivers/apc\_modbus.c, drivers/apc\_modbus.h: apc\_modbus: Add ups.test.result This outputs the test result, the source of the start of the test and a result modifier.



**2.355 2023-11-22 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/nutdrv\_qx.c: armac\_command(): avoid "-Wdeclaration-after-statement" Also minor cleanup with comments markup
- drivers/nutdrv\_qx.c: load\_armac\_endpoint\_cache(): avoid "-Wdeclaration-after-statement" situations Also log if effectively skipping the method (not libusb-1.x build)
- README.adoc: add links to custom Jenkins Dynamatrix library and setup for NUT
- README.adoc: do our best to top-align the cells in acknowledgements table, and comment about caveats of known renderers
- README.adoc: rephrase the sponsoring/starring tip section
- README.adoc: dumb down the table format for GitHub renderer
- README.adoc: no need for a plus in table for multi-paragraph cells
- README.adoc: align columns in vendor logo table; leave a FIXME comment for PDF renditions
- README.adoc: try to fix vendor acknowledgements table width
- README.adoc: refer from "NUT and Ecosystem" to "Acknowledgements for NUT CI and Ops" table with vendor logos [#2192]
- README.adoc: use single PNG for OpenCollective vendor logo
- README.adoc, docs/nut.dict: README.adoc: use alt/url/width/height markup for vendor logo images
- docs/Makefile.am, docs/images/ci/OC\_logo\_merged\_140x26.png, docs/images/ci/OC\_logo\_merged\_171x32.png: docs/images/ci/OC\_logo\_merged\_XxY.png: add merged (and also resized) single image files
- docs/asciidoc-vars.conf: fix "imagesdir" for GitHub rendering
- README.adoc: fix title markup
- README.adoc, docs/nut.dict: README.adoc: make "NUT and the ecosystem" a separate chapter (including a "TIP" on GitHub starring)
- .github/pull\_request\_template.md: remind to Please star NUT on GitHub, this helps with sponsorships [#2192]
- README.adoc: start with a note about sponsorship and GitHub stars

**2.356 2023-11-21 Jim Klimov <jimklimov+nut@gmail.com>**

- README.adoc, docs/nut.dict: README.adoc: fix GitHub rendering of logos in the README [#2192]
  - docs/Makefile.am, docs/images/ci/jenkins-nut.txt: docs/Makefile.am: list IMAGE\_LOGO\_FILES and IMAGE\_LOGO\_FILES\_JEN for EXTRA\_DIST
  - scripts/python/module/MANIFEST.in, scripts/python/module/Makefile.am, scripts/python/module/setup.py.in: scripts/python/module/MANIFEST.in: distribute "tox.ini" in a different way so it is only in sdist [#2193]
  - drivers/main.c, NEWS.adoc: fix fallout of TOCTOU fixes for socket file non-default permissions [#2185]
-

2.357 2023-11-20 Jim Klimov <jimklimov+nut@gmail.com>

- README.adoc: docs/images/ci/DO\_Powered\_by\_Badge\_blue\_140pxW.png, docs/images/ci/GitHub-Mark-140pxW.png, docs/images/ci/nut-transparent-bg-140pxW.png, docs/nut.dict: README.adoc: try to adjust logo image widths
- README.adoc: use PNG versions of logos (avoid requirement of inkscape etc. to build PDF)
- docs/images/ci/AppVeyor\_logo-ar21.png, docs/images/ci/AppVeyor\_logo-ar21.svg: docs/images/ci/AppVeyor\_logo-ar21.png: convert from SVG to PNG with Inkscape
- docs/images/ci/AppVeyor\_logo-ar21.svg: copy from <https://www.vectorlogo.zone/logos/appveyor/appveyor-ar21.svg>
- docs/images/ci/OC\_logotype.png, docs/images/ci/OC\_logotype.svg: docs/images/ci/OC\_logotype.png: convert from SVG to PNG with Inkscape
- docs/images/ci/OC\_logo-watercolor-256.png: copy from [https://next-images.opencollective.com/\\_next/image?url=%2Fstatic%2Fimages%2Fwatercolor-256.png&w=32&q=75](https://next-images.opencollective.com/_next/image?url=%2Fstatic%2Fimages%2Fwatercolor-256.png&w=32&q=75)
- docs/images/ci/gandi-ar21.png: convert from SVG to PNG with Inkscape
- docs/images/ci/DO\_Powered\_by\_Badge\_blue.png, docs/images/ci/DO\_Powered\_by\_Badge\_blue.svg: docs/images/ci/DO\_Powered\_by\_Badge\_blue.png: copy from [https://opensource.nyc3.cdn.digitaloceanspaces.com/attribution/assets/PoweredByDO/DO\\_Powered\\_by\\_Badge\\_blue.png](https://opensource.nyc3.cdn.digitaloceanspaces.com/attribution/assets/PoweredByDO/DO_Powered_by_Badge_blue.png)
- docs/images/ci/CircleCI\_vertical\_black\_logo.png, docs/images/ci/CircleCI\_vertical\_black\_logo.svg: docs/images/ci/CircleCI\_vertical\_black\_logo.png: copy from [https://brand.circleci.com/api/asset/download.png?asset\\_id=47134418&auth=XCzXjqT6lGYuIc0IH9SjTA](https://brand.circleci.com/api/asset/download.png?asset_id=47134418&auth=XCzXjqT6lGYuIc0IH9SjTA)
- README.adoc: use locally stored logos of acknowledged helper projects
- docs/images/ci/CircleCI\_vertical\_black\_logo.svg: copy from [https://brand.circleci.com/api/asset/download.svg?asset\\_id=47134422&auth=XCzXjqT6lGYuIc0IH9SjTA](https://brand.circleci.com/api/asset/download.svg?asset_id=47134422&auth=XCzXjqT6lGYuIc0IH9SjTA)
- docs/images/ci/AppVeyor\_logo-2x.png: copy from <https://ci.appveyor.com/assets/images/logo-2x.png>
- docs/images/ci/OC\_logotype.svg: copy from <https://opencollective.com/static/images/logotype.svg>
- docs/images/ci/DO\_Powered\_by\_Badge\_blue.svg: copy from [https://opensource.nyc3.cdn.digitaloceanspaces.com/attribution/assets/PoweredByDO/DO\\_Powered\\_by\\_Badge\\_blue.svg](https://opensource.nyc3.cdn.digitaloceanspaces.com/attribution/assets/PoweredByDO/DO_Powered_by_Badge_blue.svg) [#2192]
- docs/images/ci/GitHub-Mark-ea2971cee799.png: copy from <https://github.githubassets.com/assets/GitHub-Mark-ea2971cee799.png>
- docs/images/ci/gandi-ar21.svg: docs/images/gandi-ar21.svg: copy from nut-website
- README.adoc: extend the Acknowledgements chapter with logos of organizations and projects which help ensure NUT project operations on a continuous basis [#2192]
- drivers/main.c: clarify numeric errno for faults of fstat/chmod/chown/. . . for socket file [#2185]
- scripts/python/module/tox.ini: revise relative paths made available for source testing [#2186]
- scripts/python/module/Makefile.am: arrange for "make tox"

2.358 2023-11-19 Jim Klimov <jimklimov+nut@gmail.com>

- [illegible]

**2.359 2023-11-18 Jim Klimov <jimklimov+nut@gmail.com>**

- .github/workflows/PyNUTClient.yml: convert to use scripts/python/module/Makefile.am directly, to avoid discrepancies in two logic implementations
- scripts/python/module/tox.ini: update pip as a "commands\_pre" action [#2186]
- .github/workflows/PyNUTClient.yml: fix typo determining TAG\_NAME
- scripts/python/module/Makefile.am, scripts/python/module/setup.py.in, scripts/python/module/tox.ini: Py: try to beat sense into packaging all the files
- scripts/python/module/Makefile.am: add "py-in" and "redist" targets for manual iterations
- scripts/python/module/.gitignore, scripts/python/module/Makefile.am, scripts/python/module/tox.ini: scripts/python/module: add Python testing framework handling (tox.ini etc) [#2186]

**2.360 2023-11-16 Jim Klimov <jimklimov@gmail.com>**

- drivers/Makefile.am: dist the apc\_modbus.h file

**2.361 2023-11-16 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/python/module/setup.py.in: update "keywords" to refer to NUT
- scripts/python/module/setup.py.in: constrain lowest known compatible python version
- scripts/python/module/setup.py.in: clean up formatting
- scripts/python/module/Makefile.am: create the PyNUTClient/src directory for better module naming
- scripts/python/module/Makefile.am: clean the many .pypi-dist\* touch-files we have now
- scripts/python/module/Makefile.am: allow "make clean dist" to do a sane thing
- NEWS.adoc: update for arduino-hid [#2188]
- NEWS.adoc: Update NEWS.adoc
- drivers/arduino-hid.c: Update arduino-hid.c
- scripts/systemd/nut-driver-enumerator-daemon-activator.path.in, scripts/systemd/nut-driver-enumerator-daemon-activator.service.in, scripts/systemd/nut-driver-enumerator-daemon.service.in, scripts/systemd/nut-driver-enumerator.path.in: scripts/systemd/nut-driver-enumerator-daemon\*.in: add NUT headers like in other systemd units

**2.362 2023-11-15 Kelly Byrd <kbyrd@memcpy.com>**

- drivers/arduino-hid.c: battery.runtime, status OL/OB and more for Arduino subdriver Add support for the common status flags as well as time remaining, battery voltage and other variables found in other HID subdrivers. The Arduino library always supported these items, just the NUT subdriver didn't pick them up so things like status were always OB.

**2.363 2023-11-14 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/python/module/setup.py.in: do not install `telnetlib` which is not a standalone project [#2181]
- .github/workflows/PyNUTClient.yml, scripts/python/module/.gitignore, scripts/python/module/Makefile.am, scripts/python/module/setup.py.in: scripts/python/module/setup.py.in: reference the license file (GPLv3 per NUT COPYING doc) [#2180]
- scripts/python/module/setup.py.in: rectify whitespace
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: AVOID\_REPARSE of the (empty) `ups.conf` in the main loop method [#2178]
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: consider two empty UPS lists (conf and svc) as a valid situation (nothing to reconcile yet) [#2178]
- scripts/Solaris/nut-driver-enumerator.xml.in: do not return exit-code 42 if "No more changes to reconcile"
- server/conf.c, drivers/snmp-ups.c, clients/upsmon.c, clients/upssched.c: report if config errors were seen and we ignored them (went on)
- scripts/Solaris/nut.xml.in: revise "refresh" handling in umbrella service

**2.364 2023-11-14 Axel Gembe <axel@gembe.net>**

- drivers/apc\_modbus.c, drivers/apc\_modbus.h, drivers/upshandler.h: `apc_modbus`: Updates, command, writable variables and outlet group support This adds support for commands, writable variables and outlet groups. - For commands there is a new table called `apc_modbus_command_map` which defines the supported commands as a tuple of command name, register offset and value to write. This also adds a new instcmd status called `STAT_INSTCMD_CONVERSION_FAILED` for when conversion of values fails. On startup all the commands are registered using `dstate_addcmd`. This also adds support for the `upsdrv_shutdown` function. - For writable variables we added a new flag called `APC_VF_RW` to the existing variables that indicates a writable variable. We added code to convert from a string to `UINT/INT/STRING` variables with output in APCs register format. There is a new `_apc_modbus_setvar` function that handles setting variables and rereading them from the device. This also adds a new setvar status called `STAT_SET_CONVERSION_FAILED` for when conversion of values fails. Variables are now correctly set as `ST_FLAG_STRING` and `ST_FLAG_RW` and we call `dstate_setaux` to give a maximum length for strings. - For outlet groups, we now have names, configurable delays and commands per outlet group. Devices have an outlet group called `MOG` (Main outlet group) that switches all the outputs of the UPS and 1-3 SOGs (Switched outlet groups) that can be controlled independently. Note that `MOG` is `outlet.group.0` and the SOGs start at `outlet.group.1`. The outlet groups should have markings with the same index at the back of the unit. - This also reduces the length of some of the defines to make the variable maps more readable. - It also adds a comment to when the reopen matcher is created that clarifies why we create it.
- drivers/apcsmart-old.c: `apcsmart-old`: Fix return value for not writable variable The code returned `STAT_SET_UNKNOWN`, which is for variables that were not found, instead this should return `STAT_SET_INVALID`, which means that the variable is not writable.

**2.365 2023-11-13 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/Makefile.am: when used to make `spellcheck` from different directories (and of other-directory files) try to report the path to text source relative to NUT source
  - scripts/augeas/README.adoc: for paragraph-quote block markup
  - NEWS.adoc, UPGRADING.adoc, autogen.sh, configure.ac, docs/nut.dict, scripts/devd/.gitignore, scripts/devd/Makefile.am, tools/Makefile.am, tools/nut-usbinfopl: tools/nut-usbinfopl: generate FreeBSD style quirks information [#2159]
  - data/html/README.adoc, docs/nut.dict, scripts/Windows/README.adoc, scripts/augeas/README.adoc, scripts/python/README.adoc, scripts/python/app/README.adoc, scripts/usb\_resetter/README.adoc: scripts/\*/README.adoc: revise markup for proper rendered visuals
  - Makefile.am, data/html/Makefile.am, data/html/README, data/html/README.adoc, docs/nut.dict: data/html/README.adoc: rename to .adoc extension, refresh text and markup, add to spell-checking laundry list
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- Makefile.am, tests/NIT/Makefile.am, tests/NIT/{README ⇒ README.adoc}: tests/NIT/README.adoc: rename to .adoc extension, refresh text and markup, add to spell-checking laundry list
- scripts/Makefile.am, scripts/RedHat/README, scripts/RedHat/README.adoc: scripts/RedHat/README.adoc: rename to .adoc extension, refresh text and markup, add to spell-checking laundry list
- docs/nut.dict, scripts/Makefile.am, scripts/usb\_resetter/{README.md ⇒ README.adoc}: scripts/usb\_resetter/README.adoc: convert from .md to .adoc, refresh text, add to spell-checking laundry list (also do EXTRA\_DIST this directory)
- Makefile.am, scripts/hotplug/Makefile.am, scripts/hotplug/README, scripts/hotplug/README.adoc: scripts/hotplug/README.adoc: rename to .adoc extension, refresh text and markup, add to spell-checking laundry list
- Makefile.am, scripts/udev/Makefile.am, scripts/udev/README, scripts/udev/README.adoc: scripts/udev/README.adoc: rename to .adoc extension, refresh text and markup, add to spell-checking laundry list
- Makefile.am, docs/nut.dict, scripts/upsdrvsvctl/Makefile.am, scripts/upsdrvsvctl/README, scripts/upsdrvsvctl/README.adoc: scripts/upsdrvsvctl/README.adoc: rename to .adoc extension, refresh text and markup, add to spell-checking laundry list
- scripts/Makefile.am, scripts/Solaris/Makefile.am, scripts/Windows/Makefile.am, scripts/augeas/Makefile.am, scripts/devd/Makefile.am, scripts/hotplug/Makefile.am, scripts/systemd/Makefile.am, scripts/udev/Makefile.am, scripts/ufw/Makefile.am, scripts/upsdrvsvctl/Makefile.am: scripts/\*/Makefile.am: add/update headings about the NUT scripts/subdir for easier navigation
- Makefile.am, scripts/devd/Makefile.am, scripts/devd/README, scripts/devd/README.adoc: scripts/devd/README.adoc: rename to .adoc extension, refresh text and markup, add to spell-checking laundry list
- scripts/augeas/Makefile.am: comment about spellchecking and markup of README.adoc
- scripts/ufw/Makefile.am: comment about spellchecking and markup of README.adoc
- Makefile.am, docs/nut.dict, scripts/systemd/Makefile.am, scripts/systemd/README, scripts/systemd/README.adoc: scripts/systemd/README.adoc: rename to .adoc extension, refresh text and markup, add to spell-checking laundry list
- Makefile.am, scripts/Makefile.am: scripts/README.adoc: add to spell-checking laundry list
- scripts/README.adoc: refresh text and markup
- scripts/Makefile.am, scripts/{README ⇒ README.adoc}: scripts/README: rename to .adoc extension
- Makefile.am, docs/nut.dict, scripts/python/Makefile.am, scripts/python/app/README.adoc, scripts/python/module/README.adoc: scripts/python/\*/README.adoc: add to spell-checking laundry list
- Makefile.am, docs/nut.dict, scripts/Windows/Installer/README.adoc, scripts/Windows/Makefile.am, scripts/Windows/README.adoc: scripts/Windows/\*/README.adoc: add to spell-checking laundry list
- .../DriverInstaller/{README.txt ⇒ README.adoc}, scripts/Windows/Makefile.am: scripts/Windows/Makefile.am: fix EXTRA\_DIST to cover many other scripts and resource files
- Makefile.am, docs/nut.dict, scripts/Solaris/Makefile.am: scripts/Solaris/README.adoc: add to spell-checking laundry list
- scripts/Solaris/README.adoc: refresh text and markup
- scripts/Solaris/Makefile.am, scripts/Solaris/{README ⇒ README.adoc}: scripts/Solaris/README: rename to .adoc extension

## 2.366 2023-11-12 Jim Klimov <jimklimov+nut@gmail.com>

- NEWS.adoc, clients/upsmon.c, clients/upsmon.h, conf/upsmon.conf.sample.in, docs/man/upsmon.conf.txt, docs/nut.dict: clients/upsmon et al: add notification support for NOTCAL state change [#2169]
- NEWS.adoc, docs/nut.dict: NEWS.adoc: document fix of INSTCMD NPE [#2155]
- NEWS.adoc: inject a new NUT v2.8.3 expectations plan
- NEWS.adoc: refer to PR #2156 for powerpanel fix
- docs/maintainer-guide.txt: ensure PyNUT publication
- .github/workflows/PyNUTClient.yml: only update TestPyPI repo if PyNUT sources changed

**2.367 2023-11-11 root <root@deb128.rd-dpis77.local>**

- clients/upsmon.c: It is important to reset the "CAL" status. This will be reset later if necessary.

**2.368 2023-11-11 Jim Klimov <jim@jimklimov.com>**

- .github/workflows/PyNUTClient.yml: limit auto-runs to NUT upstream [#2158] Other repos lack needed pypi credentials anyway.

**2.369 2023-11-10 Jim Klimov <jimklimov+nut@gmail.com>**

- tools/Makefile.am, autogen.sh: cause USB (and SNMP) file re-generation if generating script was changed
- autogen.sh, m4/nut\_check\_python.m4: update ad-hoc lists for python3.x program name detection
- drivers/powervar-hid.c: fix file perms
- autogen.sh: re-generate USB ID listing files if we updated sources
- tools/nut-usbinfo.pl: add a big scary header that nutscan-usb.h is generated

**2.370 2023-11-09 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc, conf/nut.conf.sample, conf/upsd.conf.sample, docs/config-notes.txt, docs/man/nut.conf.txt, docs/man/upsd.conf.txt, scripts/augeas/nutupsdconf.aug.in, server/conf.c, server/upsd.c, server/upsd.h: upsd: introduce support for ALLOW\_NOT\_ALL\_LIST configuration toggle [#723]
  - NEWS.adoc, server/upsd.c: server/upsd.c: server\_load(): if listenersTotal != listenersValid, default to fatal start-up failure [#723]
  - server/upsd.c: server\_load(): if discrepancy of listenersTotal vs. listenersValid amounts to localhost-related addresses, let it slide [#723]
  - server/upsd.c: server\_load(): keep track of listenersTotal vs. listenersValid for certain localhost-related string names and IP addresses [#723]
  - NEWS.adoc, server/upsd.c: server/upsd.c: server\_load(): keep track of listenersTotal vs. listenersValid, and base "no listening interface available" diagnosis on the latter, not on the firstaddr→sock\_fd [#723]
  - server/upsd.c: setuptcp(): warn if requested to LISTEN on "localhost" by name (in case it misfires for IPv4 vs. IPv6)
  - server/Makefile.am: limit SSL and LIBWRAP options to upsd (sockdebug/pipedebbug is not networked)
  - scripts/python/module/.gitignore: .pypi\* touch-files [#2158]
  - .github/workflows/PyNUTClient.yml: fix testpypi repo url argument [#2158]
  - .github/workflows/PyNUTClient.yml: publish from our non-default directory location [#2158]
  - .github/workflows/PyNUTClient.yml: update pypa action to "release/v1" (not chasing specific tag) [#2158]
  - .github/workflows/PyNUTClient.yml: update doc reference comments [#2158]
  - .github/workflows/PyNUTClient.yml: separate source preparation from distro preparation [#2158]
  - scripts/python/module/README.adoc: reshuffle paragraphs for readability, fix a few typos [#2158]
  - docs/maintainer-guide.txt: make note to check PyPI resources [#2158]
  - .github/workflows/PyNUTClient.yml: refine yaml vs. shell syntax some more [#2158]
-



- `.github/workflows/PyNUTClient.yml`: refine yaml vs. shell syntax [#2158]
- `scripts/python/module/setup.py.in`: `scripts/python/module/setup.py`: refer to README.txt made for sdist [#2158]
- `.github/workflows/PyNUTClient.yml`, `scripts/python/module/Makefile.am`: actually better prefer "pip build" as the newest designed solution [#2158]
- `.github/workflows/PyNUTClient.yml`, `scripts/python/module/Makefile.am`: prefer setup.py for its sdist support [#2158]
- `.github/workflows/PyNUTClient.yml`: align with recent changes in `scripts/python/module/Makefile.am` [#2158]
- `scripts/python/module/Makefile.am`: use quieter "pip" build wrapper, not directly calling setup.py [#2158]
- `scripts/python/module/Makefile.am`: make sure the `src/...` module is found (wants `init.py`) [#2158]
- `scripts/python/module/setup.py.in`: fix README quoting as the long description [#2158]
- `.github/workflows/PyNUTClient.yml`, `scripts/python/module/.gitignore`, `scripts/python/module/Makefile.am`: `scripts/python/module/Makefile.am`: PyPI standard wants a README.txt to be present [#2158]
- `scripts/python/module/Makefile.am`: revise verbosity and selection of upload target [#2158]
- `configure.ac`, `.github/workflows/PyNUTClient.yml`: refine definition of `NUT_SOURCE_GITREV_NUMERIC` to avoid dash separator and use a dot (`major.minor.patch.commitnumsince`) [#2158]
- `scripts/python/module/Makefile.am`: revise `GENERATED_DIST` artifacts [#2158]
- `scripts/python/module/setup.py.in`: fix README content type [#2158]
- `.github/workflows/PyNUTClient.yml`, `configure.ac`, `scripts/python/module/Makefile.am`, `scripts/python/module/setup.py.in`: Introduce `NUT_SOURCE_GITREV_NUMERIC` for `scripts/python/module/Makefile.am` [#2158]
- `configure.ac`, `scripts/python/Makefile.am`, `scripts/python/module/.gitignore`, `scripts/python/module/Makefile.am`: Introduce `scripts/python/module/Makefile.am` to allow PyPI repo activities from command line [#2158]

### 2.371 2023-11-09 Greg Troxel <gdt@lexort.com>

- `scripts/python/Makefile.am`: python: Do not install setup.py

### 2.372 2023-11-09 Doug Nazar <nazard@nazar.ca>

- NEWS.adoc: Update with powerpanel driver changes

### 2.373 2023-11-08 Vytautas Survila <vytautas.survila@gmail.com>

- `drivers/nutdrv_qx.c`: support Armac O/850E/PSW #2153 Support for Armac UPS that uses interrupt instead of control msg. It will be enabled automatically only for devices that reports 0x82 as in endpoint address with interrupt transfer type

### 2.374 2023-11-08 Jim Klimov <jimklimov+nut@gmail.com>

- `.github/workflows/PyNUTClient.yml`, `configure.ac`, `scripts/python/Makefile.am`, `scripts/python/module/.gitignore`, `scripts/python/module/{setup.py ⇒ setup.py.in}`: `.github/workflows/PyNUTClient.yml`, `scripts/python/module/setup.py`: rename setup.py into a .in template; use `@NUT_SOURCE_GITREV@` [#2158]
  - `.github/workflows/PyNUTClient.yml`: publish (master) branch builds to TestPyPI repository [#2158]
  - `.github/workflows/PyNUTClient.yml`: follow warnings for token access [#2158]
  - `.github/workflows/PyNUTClient.yml`: update set-output action ⇒ `GITHUB_OUTPUT` file [#2158] Follow warnings into <https://github.blog/changelog/2022-10-11-github-actions-deprecating-save-state-and-set-output-commands/>
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- `.github/workflows/PyNUTClient.yml`: use definitive version of pypa action - v1.8.10 (current latest) [#2158]
- `.github/workflows/PyNUTClient.yml`: use definitive version of pypa action [#2158]
- `scripts/python/module/setup.py`: note the renaming of README.adoc
- `.github/workflows/PyNUTClient.yml`: fix shell syntax [#2158]
- `.github/workflows/PyNUTClient.yml`: fix shell syntax [#2158]
- `.github/workflows/PyNUTClient.yml`: fix shell syntax [#2158]
- `.github/workflows/PyNUTClient.yml`: use default github-hosted runner [#2158]
- `.github/workflows/PyNUTClient.yml`: also publish master-branch rolling changes [#2158]
- NEWS.adoc, scripts/python/Makefile.am, scripts/python/{README ⇒ README.adoc}, scripts/python/app/{README ⇒ README.adoc}, scripts/python/module/{README ⇒ README.adoc}: scripts/python/\*/README: rename to \*.adoc extension [#1953]

### 2.375 2023-11-08 Jim Klimov <jim@jimklimov.com>

- `.github/workflows/PyNUTClient.yml`, NEWS.adoc, scripts/python/module/README, scripts/python/module/setup.py: Add recipes for PyPI publishing of PyNUTClient bindings for NUT [#2158] Note: PyPI names are case-insensitive, and "pynut" was occupied.

### 2.376 2023-11-07 Jim Klimov <jimklimov+nut@gmail.com>

- `tools/nut-usbinfopl`: track preference of certain drivers over others [#1021]
- NEWS.adoc, docs/man/nutscan\_add\_device\_to\_device.txt, docs/man/nutscan\_add\_option\_to\_device.txt, docs/nut.dict, tools/nut-scanner/Makefile.am, tools/nut-scanner/nutscan-device.h, tools/nut-scanner/nutscan-display.c, tools/nut-scanner/scan\_usb.c, tools/nut-usbinfopl: tools/nut-usbinfopl, nut-scanner: extend to track `alt_driver_names` in generated config suggestions
- `tools/nut-usbinfopl`: track all suitable driver names (in comments)

### 2.377 2023-11-07 Doug Nazar <nazard@nazar.ca>

- `drivers/powerp-txt.c`: powerpanel: Rewrite status parsing of text protocol to be generic Instead of having several scanf formats for different devices, parse the individual fields provided only.
- `drivers/powerp-bin.c`: powerpanel: Don't report errors about output voltage if not available
- `drivers/libhid.c`: Fix passing of errors up from libusb 1.x. The api for `get_item_buffered()` requires the actual error to be in `errno` which was automatic for libusb 0.x but libusb 1.x doesn't use `errno`. Otherwise a poll-only driver will miss errors like disconnects and never try to reconnect.
- `drivers/dstate.c`: Fix SIGSEGV while performing INSTCMD Parameter `arg[2]` is not guaranteed to be valid while performing INSTCMD. Don't pass directly to `main_instcmd()`.

### 2.378 2023-11-06 Jim Klimov <jim@jimklimov.com>

- `configure.ac`: quiece -Wincompatible-function-pointer-types-strict for clang-17 on some platforms [#823]
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**2.379 2023-11-05 Kelly Byrd <kbyrd@memcpy.com>**

- drivers/libusb0.c, drivers/libusb1.c, drivers/nut\_libusb.h, drivers/usb-common.h: Add `usb_config_index` to `usb_communication_subdriver` default to 0. The tactical goal of this change is to change `ret = libusb_get_config_descriptor(device, (uint8_t)usb_subdriver.hid_rep_index, &conf_desc);` to `ret = libusb_get_config_descriptor(device, (uint8_t)usb_subdriver.usb_config_index, &conf_desc);` Before this change, `libusb1.c` did `libusb_get_config_descriptor()` with a config index equal to the interface number. For composite devices using an interface index > 0, this is usually the wrong choice. Concretely, I'm using an Arduino for a DIY UPS project and these are composite devices with multiple interfaces under the first (and only) config descriptor. In the USB descriptor heirarchy, device descriptors have config descriptors which have interface descriptors. Also, nearly all USB devices have a single configuration (index 0). In order to do this, I added a new member alongside the existing `hid_rep_index` and `hid_desc_index`. I chose to do this instead of using the `add_var` method because this member is used in places in very similar ways to how `hid_rep_index` and `hid_desc_index` is used. This new member defaults to 0 which covers the majority of USB devices. Any future subdriver is able to use this if a device requires it. For existing subdrives, we'll just use an index of 0. I also changed some debug logging to print out the config index where the code was already printing the interface index.

**2.380 2023-11-05 Fabrice Fontaine <fontaine.fabrice@gmail.com>**

- m4/nut\_check\_python.m4: allow overriding of `PYTHON{2,3}_SITE_PACKAGES` Allow the end-user to override `PYTHON{2,3}_SITE_PACKAGES` as this can be useful when cross-compiling

**2.381 2023-11-03 Fabrice Fontaine <fontaine.fabrice@gmail.com>**

- m4/nut\_compiler\_family.m4: fix cross-compilation Do not use `isystem` with host paths when cross-compiling

**2.382 2023-11-02 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac: `nut_enable_inplace_runtime`: pass `libexecdir` if specified
- docs/man/upsmon.txt: avoid characters (some unicode space) that some versions of asciidoc dislike
- NEWS.adoc, docs/nut.dict, lib/libnutclientstub.pc.in: Clarify what is `libnutclientstub`
- docs/config-prereqs.txt, docs/nut.dict: clarify about `/dev/shm` and `noexec` option [#2143 follow-up]
- docs/config-prereqs.txt: small fixes to Slackware 15 chapter [#2143 follow-up]
- docs/man/al175.txt, docs/man/apc\_modbus.txt, docs/man/apcupsd-ups.txt, docs/man/asem.txt, docs/man/bcmxcp.txt, docs/man/bcmxcp\_usb.txt, docs/man/belkin.txt, docs/man/belkinunv.txt, docs/man/bestfcom.txt, docs/man/bestfortress.txt, docs/man/bestuferrups.txt, docs/man/bestups.txt, docs/man/blazer\_ser.txt, docs/man/blazer\_usb.txt, docs/man/clone.txt, docs/man/dummy-ups.txt, docs/man/etapro.txt, docs/man/everups.txt, docs/man/gamatronic.txt, docs/man/genericups.txt, docs/man/isbmex.txt, docs/man/ivtsd.txt, docs/man/liebert-esp2.txt, docs/man/liebert.txt, docs/man/macosx-ups.txt, docs/man/masterguard.txt, docs/man/metasys.txt, docs/man/microdowell.txt, docs/man/microsol-apc.txt, docs/man/netxml-ups.txt, docs/man/nutdrv\_atcl\_usb.txt, docs/man/nutdrv\_qx.txt, docs/man/nutdrv\_siemens\_sitop.txt, docs/man/oneac.txt, docs/man/optiups.txt, docs/man/pijuice.txt, docs/man/powercom.txt, docs/man/powerpanel.txt, docs/man/rhino.txt, docs/man/richcomm\_usb.txt, docs/man/safenet.txt, docs/man/skel.txt, docs/man/snmp-ups.txt, docs/man/solis.txt, docs/man/tripplite.txt, docs/man/tripplitesu.txt, docs/man/upscode2.txt, docs/man/usbhid-ups.txt, docs/man/victronups.txt: Fix man pages to have SYNOPSIS as the second section per standard
- docs/config-prereqs.txt, docs/nut.dict: docs/config-prereqs.txt: update about docbook-xml / linuxdoc-tools [#2142]
- m4/nut\_check\_asciidoc.m4, configure.ac: separate `A2X_MIN_VERSION` from `ASCIIDOC_MIN_VERSION` [#2142]
- docs/config-prereqs.txt, docs/nut.dict: add diffutils to Slackware baseline (not in default install)
- scripts/Windows/Makefile.am: avoid "Using \$< in a non-suffix rule context is a GNUmake idiom" for non-GNU makes
- docs/Makefile.am: avoid "Using \$< in a non-suffix rule context is a GNUmake idiom" for non-GNU makes
- docs/config-prereqs.txt, docs/nut.dict: docs/nut.dict: update spellchecker to make older systems happy
- configure.ac: dumb down the check for `HAVE_WINDOWS_H` to cater for older autotools

**2.383 2023-11-01 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/config-prereqs.txt, docs/nut.dict: add a chapter on Slackware 15 build environment - clarify Sotirov's SlackPack
- configure.ac: only define that we HAVE\_WINDOWS if both the minimally required tools and headers are in place
- m4/nut\_check\_headers\_windows.m4: add automake conditionals for detected header files
- docs/config-prereqs.txt, docs/nut.dict: add a chapter on Slackware 15 build environment - clarify Alien Slack Builds
- docs/config-prereqs.txt, docs/nut.dict: add a chapter on Slackware 15 build environment
- scripts/Windows/Makefile.am: limit binary builds to cases where we HAVE\_WINDOWS [#2142]
- docs/man/huawei-ups2000.txt, docs/man/liebert-esp2.txt: fix titles
- configure.ac: bump AC\_INIT to development version 2.8.1.1

**2.384 2023-10-31 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc, UPGRADING.adoc, docs/docinfo.xml.in: Revert "NEWS.adoc, UPGRADING.adoc, docs/docinfo.xml.in: finalize text before NUT v2.8.1 release" This reverts commit 909705233877a45953f9c739abd9bc8156a05627.
- configure.ac: update AC\_INIT for NUT v2.8.1 release
- docs/configure.txt, scripts/Windows/README.adoc, scripts/Windows/build-mingw-nut.sh: update examples for NUT v2.8.1 release
- appveyor.yml: update for NUT v2.8.1 release
- docs/maintainer-guide.txt: revise procedures for NUT v2.8.1 release
- docs/maintainer-guide.txt: update filenames to adjust for changes leading up to NUT v2.8.1 release
- docs/docinfo.xml.in: set the date for NUT v2.8.1 release
- NEWS.adoc, UPGRADING.adoc, docs/docinfo.xml.in: finalize text before NUT v2.8.1 release
- ci\_build.sh: for default developer builds without parameters, nowadays we should have default warnings active and fatal
- tests/NIT/nit.sh: take advantage of NUT\_QUIET\_INIT\_UPSNOTIFY=true [#2136]
- scripts/Windows/Installer/README.adoc: add initial notes on the NUT for Windows Installer [#1485]
- scripts/Windows/build-mingw-nut.sh: handle optional cgi-bin location and lack of NUT libs among system dependencies more eloquently (WRT build log)
- scripts/Windows/build-mingw-nut.sh: allow caller to customize WINDIR, TOP\_DIR, BUILD\_DIR and INSTALL\_DIR
- scripts/Windows/build-mingw-nut.sh: double-quote path variables
- scripts/Windows/build-mingw-nut.sh: handle optional cgi-bin location more eloquently (WRT build log)
- INSTALL.nut.adoc, NEWS.adoc, appveyor.yml, ci\_build.sh, docs/config-prereqs.txt, scripts/Windows/Makefile.am, scripts/Windows/{README ⇒ README.adoc}, scripts/Windows/build-mingw-prereqs.sh: Rename scripts/Windows/README ⇒ scripts/Windows/README.adoc
- docs/man/apc\_modbus.txt: update the man page with caveats applicable at the publication time (Oct 2023) [#2063 follow-up]

**2.385 2023-10-30 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac, scripts/Windows/Installer/.gitignore, scripts/Windows/Installer/{NUT-Installer.xml ⇒ NUT-Installer.xml.in}: scripts/Windows/Installer.xml: make it a .in template and substitute NUT PACKAGE\_VERSION
- clients/upsc.c: typo fix in self-identification message
- drivers/upsdrvctl.c: fix formatting string for wstat debug-print [#2135]
- NEWS.adoc, drivers/riello.c, drivers/riello\_ser.c, drivers/riello\_usb.c: drivers/riello\*.c: fix back bit maths changed with #1106
- UPGRADING.adoc: revise envvars that tweak specific message verbosity

**2.386 2023-10-29 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/upsdrvctl.c: trace (and timestamp) the exit paths from tool [#2135]
- scripts/Aix/nut.init.in, scripts/HP-UX/nut-drvctl.sh, scripts/HP-UX/nut-upsd.sh, scripts/HP-UX/nut-upsmon.sh, scripts/Red-Hat/upsd.in, scripts/RedHat/upsmon.in, scripts/Solaris/nut.in, scripts/Solaris/svc-nut-monitor.in, scripts/Solaris/svc-nut-server.in, scripts/Solaris8/S99upsmon: Suggest NUT\_QUIET\_INIT\_UPSNOTIFY=true in sample init-scripts [#2136]
- common/common.c, NEWS.adoc, docs/nut.dict: support NUT\_QUIET\_INIT\_UPSNOTIFY envvar to hide upsnotify "failed... will not spam more" messages [#2136]
- drivers/upsdrvctl.c: differentiate waitpid(..., WNOHANG) returns of "-1" vs "0" [#2135]
- drivers/upsdrvctl.c: make use of return value from execv()
- drivers/upsdrvctl.c: trace-debug the waitpid() return info
- drivers/upsdrvctl.c: forkexec(): fix comments and whitespaces
- drivers/upsdrvctl.c: forkexec(): fix return type of waitpid()
- drivers/upsdrvctl.c: do not treat a driver initialization timeout as immediate error for upsdrvctl exit code - review the results again [#2134]

**2.387 2023-10-28 Jim Klimov <jimklimov+nut@gmail.com>**

- conf/ups.conf.sample, docs/man/ups.conf.txt: further clarify behavior of maxstartdelay [#2134]
- conf/ups.conf.sample, docs/man/ups.conf.txt: clarify behavior of maxstartdelay [#2134]
- clients/upsmon.c: Revert "clients/upsmon.c: remove doshutdown() attributenoreturn annotation, now it can [#2133]" This reverts commit 2e7263812b4f97cb0d667550e0e660ab50c2ed9e.
- NEWS.adoc, clients/upsmon.c, conf/upsmon.conf.sample.in, docs/man/upsmon.conf.txt: clients/upsmon.c et al: adjust definition of SHUTDOWNEXIT to allow a finite delay between SHUTDOWNCMD and exit() [#2133]
- clients/upsmon.c: remove doshutdown() attributenoreturn annotation, now it can [#2133]

**2.388 2023-10-27 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc, clients/upsmon.c, conf/upsmon.conf.sample.in, docs/man/upsmon.conf.txt, docs/nut.dict: clients/upsmon.c et al: introduce SHUTDOWNEXIT boolean option [#2133]

**2.389 2023-10-26 desertwitch <24509509+desertwitch@users.noreply.github.com>**

- NEWS.adoc: reference respective PR for repeater\_disable\_strict\_start option
  - drivers/dummy-ups.c, docs/man/dummy-ups.txt, NEWS.adoc: introduce repeater\_disable\_strict\_start config option
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**2.390 2023-10-26 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc: update list of dummy-ups improvements for NUT v2.8.1

**2.391 2023-10-25 desertwitch <24509509+desertwitch@users.noreply.github.com>**

- drivers/dummy-ups.c: relax error handling to prevent premature driver termination

**2.392 2023-10-25 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/apcsmart.c: apc\_getcaps(): revert to behavior like in NUT v2.7.4 about invalid nument/entlen value(s) [#1941]
- drivers/apcsmart-old.c: fix DRIVER\_NAME to reflect "old"ness of this driver

**2.393 2023-10-24 desertwitch <24509509+desertwitch@users.noreply.github.com>**

- clients/upsmon.c: debug msgs for possible FSD conditions on conn drop
- clients/upsmon.c: sanity check status for debug msg on conn drop
- clients/upsmon.c: print last remembered line state in connection drop debug msg

**2.394 2023-10-24 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/apcsmart-old.c: do\_capabilities(): revert to behavior like in NUT v2.7.4 about invalid nument/entlen value(s) [#1941]
- Jenkinsfile-dynamatrix: leave "enableDebugTraceGithubStatusHighlights=true" default just for fightwarn-like branches

**2.395 2023-10-23 desertwitch <24509509+desertwitch@users.noreply.github.com>**

- clients/upsmon.c: keep last UPS linestate on drop\_connection

**2.396 2023-10-21 Jim Klimov <jimklimov+nut@gmail.com>**

- Jenkinsfile-dynamatrix: add a dynamatrixGlobalState.enableDebugTraceGithubStatusHighlights toggle

**2.397 2023-10-21 Axel Gembe <axel@gembe.net>**

- drivers/apc\_modbus.c: apc\_modbus: Add an early exit if a USB regex is non-zero A minuscule optimization.
  - drivers/apc\_modbus.c: apc\_modbus: Use snprintf instead of strncpy strncpy does not necessarily zero terminate the buffer so we replace it with snprintf and add error checking. This also fixes an off-by-one in the snprintf error checking of the \_apc\_modbus\_double\_to\_nut and \_apc\_modbus\_power\_to\_nut functions and adds error checking to every snprintf call.
  - drivers/apc\_modbus.c, drivers/apcsmart.c, drivers/belkinunv.c, drivers/openups-hid.c, drivers/optiups.c, drivers/tripplitesu.c, include/common.h, tests/getvaluetest.c: Add SIZEOF\_ARRAY macro and use where applicable This adds a new SIZEOF\_ARRAY to common.h and changes some code to use it.
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**2.398 2023-10-19 Jim Klimov <jimklimov+nut@gmail.com>**

- .gitignore: GitIgnore .ci\*.txt\* if some are left over in the NUT CI farm work area
- .gitignore: GitIgnore .ci\*.txt\* if some are left over in the NUT CI farm work area
- tests/NIT/nit.sh: avoid printing "Error:..." in successful cases This confuses CI log analyzer

**2.399 2023-10-18 Jim Klimov <jimklimov+nut@gmail.com>**

- tests/NIT/nit.sh: testcase\_sandbox\_nutscanner\_list(): fix reporting
  - report why a test case failed sanity-checks; \* avoid grep output spilling to test log to avoid confusion; \* revise that exactly expected port count was seen (that was the confusion); \* use log\_\*() in that sanity-check block
  - tests/NIT/nit.sh: tag more progress messages with respective testcase; revise upsd stopping after testcase\_upsd\_allow\_no\_device()
  - tests/NIT/nit.sh: use log\_separator() before sandbox\_forget\_configs() in testgroup\*()
  - tests/NIT/nit.sh: use NUT\_DEBUG\_PID envvar to help test-log readability
  - NEWS.adoc, UPGRADING.adoc, common/common.c: common/common.c: optionally support NUT\_DEBUG\_PID envvar presence to include PID number in debug-level identifiers
  - tests/NIT/nit.sh: sandbox\_start\_drivers(): report success or failure
  - tests/NIT/nit.sh: report driver PIDs when debugging
  - tests/NIT/nit.sh: tag progress/report messages emitted by test cases to help log readability
  - tests/NIT/nit.sh: testcase\_sandbox\_start\_drivers\_after\_upsd(): fix matching expression and explain why
  - tests/NIT/nit.sh: testcase\_sandbox\_start\_drivers\_after\_upsd(): bump timeout and explain why
  - tests/NIT/nit.sh: better filter the processes we look at after sandbox\_start\_drivers() if debugging
  - drivers/dummy-ups.c: bump © and version due to recent changes
  - drivers/dummy-ups.c: avoid blank line in debug logs
  - drivers/dummy-ups.c: refactor prepare\_filepath() into one helper method
  - drivers/dummy-ups.c: use better-qualified "fn" rather than potentially short "device\_path" to stat the paths
  - drivers/dummy-ups.c: clarify that "upsfd" is not really used in file-based dummy-ups; check for invalid FD for good measure (to avoid fstat() on that)
  - drivers/dummy-ups.c: reconcile method prototype with implem
  - drivers/dummy-ups.c: clarify a nested if/elif/... tree
  - drivers/dummy-ups.c: clarify some debug messages
  - configure.ac: relax the check warning for gmtime\_[rs] and localtime\_[rs] As long as we have one, it is okay Closes: #2115
  - scripts/upsdrvsvctnl/nut-driver-enumerator.sh.in: handle service dependencies for apc\_modbus [#139, #2063]
  - scripts/upsdrvsvctnl/nut-driver-enumerator.sh.in: update a comment
  - scripts/upsdrvsvctnl/nut-driver-enumerator.sh.in: revise service dependencies for apcupsd-ups relay driver
  - NEWS.adoc: announce the new apc\_modbus driver [#139, #2063]
-

**2.400 2023-10-18 Axel Gembe <axel@gembe.net>**

- tools/nut-usbinfo.pl: nut\_usbinfo.pl: Lowercase the USB ids before inserting. If we don't normalize the case before inserting VID/PID/Driver into `$vendor` we can have duplicate entries.

**2.401 2023-10-17 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/libusb1.c: nut\_libusb\_open(): do not keep Bus/Device/BusPort pointers to random malloc() block if we did not get a number to print there from libusb. Avoid (un-)pretty prints like: 0.031364 [D2] - Bus: 006 0.031366 [D2] - Bus Port: &#x2592;UV&#x2592;&#x2592;U 0.031368 [D2] - Device: 001

**2.402 2023-10-16 Jim Klimov <jimklimov+nut@gmail.com>**

- clients/upsmon.c: clients/upsmon.{c,h}: refactor restoring pollfreq (from alert to normal) [#2108]
- clients/upsmon.c, clients/upsmon.h: clients/upsmon.{c,h}: untie OFF/BYPASS states from ONLINE/ONBATT and linestate attr [#2108]
- data/cmdvartab: define descriptions for recently added commands and variables [#2112]
- m4/ax\_run\_or\_link\_ifelse.m4: revise to only impose gcc/clang warning option requirements into compilers that identify as GCC or CLANG [#2096 fallout]
- m4/ax\_run\_or\_link\_ifelse.m4: C++ does not support -Werror=implicit-function-declaration [#2109, #2096 fallout]
- include/str.h, m4/ax\_c\_pragmas.m4, tests/Makefile.am: Refactor uses of HAVE\_PRINTF\_STRING\_NULL vs. REQUIRE\_NUT\_ST for printf("%s", NULL) support [#2109]
- m4/ax\_c\_pragmas.m4, configure.ac: merge two tests for printf("%s", NULL) [#2109]
- m4/ax\_c\_pragmas.m4: extend AX\_C\_PRINTF\_STRING\_NULL with use of AX\_RUN\_OR\_LINK\_IFELSE option to ignore certain warnings [#2109]
- configure.ac: fix logged output of inet\_pton() test
- m4/ax\_run\_or\_link\_ifelse.m4: extend with options to customize CFLAGS and CXXFLAGS [#2109]
- drivers/usbhid-ups.c, docs/man/usbhid-ups.txt, NEWS.adoc: introduce onlinedischarge\_calibration config option [#2104]

**2.403 2023-10-15 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc: Update NEWS.adoc: clarify wording
- clients/upsmon.c: revise is\_ups\_critical() with OFF, BYPASS and CAL considerations [#2104]
- clients/upsmon.c: reword a message for critically lost primary UPS
- NEWS.adoc, clients/upsmon.c, clients/upsmon.h, conf/upsmon.conf.sample.in, docs/man/upsmon.conf.txt, docs/nut.dict: clients/upsmon et al: introduce OFFDURATION config toggle [#2104]
- drivers/usbhid-ups.c: set CAL status before reporting other possibly critical power states [#2104, #2044, fallout of #2055]

**2.404 2023-10-13 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/man/sms\_ser.txt: update some wording
  - NEWS.adoc: sms\_ser introduced [#2090]
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**2.405 2023-10-12 Jim Klimov <jimklimov@gmail.com>**

- drivers/tripplite\_usb.c: avoid varname shadowing
- drivers/sms\_ser.c: use explicit void in function prototypes
- NEWS.adoc: tripplite\_usb allows upsid setting [#2075]
- drivers/tripplite\_usb.c: cosmetic fixes (whitespace)

**2.406 2023-10-11 sapireli <114778791+sapireli@users.noreply.github.com>**

- drivers/tripplite\_usb.c: @jimklimov my apologies please dont kill me for closing the pull request just saw your typo fix on the old one implemented it here.
- docs/man/tripplite\_usb.txt, docs/nut.dict, drivers/tripplite\_usb.c: @jimklimov my apologies i royally screwed up the pull request with a rebase. I just started a new to have a clean slate scenario. also added the NUT\_UNUSED\_VARIABLE per your recommendation. tripplite\_usb.c Added UPS ID (upsid) Support: The code now includes support for matching and uniquely identifying UPS devices using the UPS ID (upsid). The upsid configuration option has been added, which accepts a regular expression to match the UPS ID string. This was done by adding a new function called match\_by\_unitid, that reads the upsid from the config file, then reads the upsid from the device, and checks if they match. This function is now passed to the comm\_driver matcher on first connect and reconnects. Added the upsid to the upsdvr\_makevaritable function so it is read and stored from the config file. tripplite\_usb.txt Updated Documentation: The driver documentation was updated to reflect the new functionality. The "EXTRA ARGUMENTS" section now includes information about the upsid configuration option, and how to set it. thank you to @jimklimov for pointing me in the right direction and hand holding.

**2.407 2023-10-11 Jim Klimov <jimklimov+nut@gmail.com>**

- Jenkinsfile-dynamatrix: enable @Library(jenkins-dynamatrix@) notation for custom-built plugin on NUT CI farm

**2.408 2023-10-10 Jim Klimov <jimklimov+nut@gmail.com>**

- clients/upsclient.c, server/netssl.c, m4/ax\_c\_pragmas.m4: hush -Wcast-function-type-strict due to void\* vs. practical pointers with NSS method pointers [#2084]
- tests/generic\_gpio\_ustest.c: cosmetic fixes
- tests/generic\_gpio\_ustest.c: avoid "error: variable might be clobbered by longjmp or vfork" [#2092]
- data/driver.list.in: add CP1350PFCLCD
- tests/Makefile.am: refer to nutlogtest\$(EXEEXT) for clarity in dependencies

**2.409 2023-10-10 Clappier, Eric <EricClappier@eaton.com>**

- drivers/compaq-mib.c: Fix issues in compaq mib

**2.410 2023-10-09 Jim Klimov <jimklimov+nut@gmail.com>**

- tests/nutlogtest.c: revise include statements

**2.411 2023-10-08 Jim Klimov <jimklimov@gmail.com>**

- docs/nut.dict: Update nut.dict for PR #2090
-

**2.412 2023-10-08 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/main.c: follow TOCTOU analysis suggestions about file permissions check and enforcement
- Jenkinsfile-dynamatrix: hush down groovy debug verbosity, use BRANCH\_NAME patterns as the default toggle to be loud and slow

**2.413 2023-10-08 Alex W Baulé <alexwbaule@gmail.com>**

- docs/man/Makefile.am, docs/man/sms\_ser.txt: Add man file and update Makefile.am

**2.414 2023-10-07 Jim Klimov <jimklimov+nut@gmail.com>**

- tests/generic\_gpio\_ustest.c: avoid NULL deref in printf() on some platforms
- Jenkinsfile-dynamatrix: warn about lack of dynacfgPipeline.configureEnvvars when we "Investigate envvars"
- drivers/sms\_ser.h: drivers/sms\_ser.c: fix use of methods without a prototype - expose in header
- drivers/sms\_ser.c: Revert "drivers/sms\_ser.c: fix use of methods without a prototype - make them static" This reverts commit 8de11079a80754af38ad67524009003028a6912e to try a different approach.
- drivers/sms\_ser.c: fix use of methods without a prototype - make them static
- drivers/sms\_ser.c: fix mixing of "unsigned int" and "long" delays
- drivers/sms\_ser.c: fix printf(ssize\_t)
- drivers/Makefile.am: "dist" the new sms\_ser.h header

**2.415 2023-10-06 Jim Klimov <jimklimov@gmail.com>**

- NEWS.adoc: optiups fixes [#2089]

**2.416 2023-10-06 Jim Klimov <jimklimov+nut@gmail.com>**

- Jenkinsfile-dynamatrix: enable tracing for fightwarn branches
- tests/generic\_gpio\_ustest.c: more fscanf() width warnings

**2.417 2023-10-05 moonbuggy <3319867+moonbuggy@users.noreply.github.com>**

- drivers/optiups.c: use str\_to\_short() instead of atoi()
- drivers/optiups.c: use short instead of long/float
- data/driver.list.in: updated driver.list.in

**2.418 2023-10-05 Jim Klimov <jimklimov@gmail.com>**

- drivers/optiups.c: Shuffle lines to keep declarations before operations
-

**2.419 2023-10-05 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/Makefile.am: bail out of spellcheck of empty SPELLCHECK\_SRC\_ONE filenames Sometimes we get this: Makefile:1216: update target *asciidoc-vars.conf* due to: *asciidoc-vars.conf*-spellchecked rm -f "asciidoc-vars.conf" \& true ; \ echo " ASPELL Spell checking on ./"; \ ... touch "asciidoc-vars.conf" ASPELL Spell checking on ./ sed: read error on stdin: Is a directory Only seen for "asciidoc-vars.conf" so far: ;; git checkout -f ; touch docs/asciidoc-vars.conf ; make spellcheck ; clear ; make dist -j 20 --trace V=1
- docs/man/Makefile.am: fix EXTRA\_DIST of driver man page sources even if the build was configured for just some subset of drivers [#2081]
- drivers/apcupsd-ups.c: use detected availability of struct pollfd to define or not the fallback
- configure.ac: detect availability of struct pollfd
- m4/ax\_run\_or\_link\_ifelse.m4: make more effort to detect undefined-ness of methods
- include/wincompat.h: comment correct portable arg type for inet\_ntop()

**2.420 2023-10-04 moonbuggy <3319867+moonbuggy@users.noreply.github.com>**

- drivers/optiups.c: correct voltages for Opti-UPS 230V AC models; correct battery capacity for 24V models

**2.421 2023-10-04 Jim Klimov <jimklimov+nut@gmail.com>**

- common/common.c: upsnotify(): make first/only notification faults visible They can be important for troubleshooting, e.g. services that rely on sd\_notify() but never get the READY message would loop in restarts.
- clients/Makefile.am: refactor definitions of LDADD\_FULL and LDADD\_CLIENT for easier reuse upsmon is a daemon with systemd notify among other things, and uses the full libcommon upssched should suffice with the client version
- docs/configure.txt, docs/nut.dict: docs/configure.txt: document --libexecdir
- scripts/systemd/nutshutdown.in: also log critical progress messages to /dev/console if available (and not-quiet mode)

**2.422 2023-10-04 Axel Gembe <axel@gembe.net>**

- configure.ac: Fix out of source tree builds The code to detect the available drivers does so by parsing *Makefile.am* but it does not do so relative to "\$srcdir" so trying to do a configure outside of the source directory will fail.

**2.423 2023-10-04 Alex W Baulé <alexwbaule@gmail.com>**

- docs/sms-brazil-protocol.txt, drivers/Makefile.am, drivers/sms\_ser.c, drivers/sms\_ser.h: add support to SMS 1phase brazil from [#1987] Tested on Nobreak SMS PREMIUM 1500 VA (with WiFi) and M3 Senoidal.

**2.424 2023-10-03 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/apcupsd-ups.c: port bits of poll.h to have this buildable on older WIN32
  - common/wincompat.c, configure.ac, include/wincompat.h, tools/nut-scanner/scan\_xml\_http.c: Add a fallback inet\_ntop() implementation Needed for tools/nut-scanner/scan\_xml\_http.c on MinGW cross-builds
  - drivers/clone.c: fix casting warnings
  - drivers/upsdrvquery.c: fix casting warnings
  - drivers/main.c: fix cmdret=upsdrvquery\_oneshot() as a generally ssize\_t value
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- drivers/main.c: fix indentation
- drivers/main.c: fix portability of chown() used as chgrp() Initial implementation passed -1 as uid to have it not changed. Not all OSes support that behavior.
- drivers/dummy-ups.c: fix casting warnings
- clients/upssched.c: fix casting warnings
- common/common.c: fix casting warnings
- tests/generic\_gpio\_ustest.c: fix warnings about formatting strings
- docs/nut.dict: update for nut-website additions

#### 2.425 2023-10-02 Jim Klimov <jimklimov+nut@gmail.com>

- Jenkinsfile-dynamatrix: default a MAKE=make envvar if somehow missing (strange bug for autotools build scenarios)
- Jenkinsfile-dynamatrix: default a MAKE=make envvar if somehow missing (strange bug for autotools build scenarios)
- docs/Makefile.am: avoid defining "check-local" target twice to include optional "spellcheck", not all tools like that [#2081]
- scripts/systemd/nutshutdown.in: simplify with sourcing of the optional config file
- scripts/systemd/nutshutdown.in: make it useful for NUT clients (which shut down and may want to avoid power races)
- tests/generic\_gpio\_liblocal.c, tests/generic\_gpio\_ustest.c: tests/generic\_gpio\_\*.c: fix clang warnings [#823]
- drivers/snmp-ups.c: fix the dangling pointer warning some compilers have found [#823]

#### 2.426 2023-10-01 Jim Klimov <jimklimov+nut@gmail.com>

- conf/nut.conf.sample, docs/man/nut.conf.txt, docs/nut.dict, scripts/systemd/nutshutdown.in: Introduce POWEROFF\_QUIET for nutshutdown et al
  - docs/man/nut.conf.txt: document ALLOW\_NO\_DEVICE setting
  - conf/nut.conf.sample: document other options currently highlighted in the man page
  - conf/nut.conf.sample: fixup! conf/nut.conf.sample: update existing comments
  - conf/nut.conf.sample: refer to man nut.conf for more info
  - conf/nut.conf.sample: update existing comments
  - scripts/systemd/nutshutdown.in: update indentations and comments
  - scripts/systemd/nutshutdown.in: fixup! scripts/systemd/nutshutdown.in: add copyright header, update practical comments
  - configure.ac, scripts/systemd/nut-driver-enumerator.path.in, scripts/systemd/nut-driver-enumerator.service.in, scripts/systemd/nut-driver.target, scripts/systemd/nut-driver@.service.in, scripts/systemd/nut-monitor.service.in, scripts/systemd/nut-server.service.in, scripts/systemd/nut.target: scripts/systemd/\*.in: add short copyright header to unit files
  - scripts/systemd/nutshutdown.in: add copyright header, update practical comments
-

**2.427 2023-09-30 Jim Klimov <jimklimov+nut@gmail.com>**

- common/common.c: nut\_prepare\_search\_paths(): use realpath() where available, and so xstrdup()/free() in general [#317]
- NEWS.adoc, common/common.c, include/common.h, tools/nut-scanner/Makefile.am, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-init.c: common, nut-scanner: Introduce nut\_prepare\_search\_paths() to pre-filter the usable set [#317]
- tools/nut-scanner/nutscan-ip.c: WIN32 builds require WSStartup() before getaddrinfo() et al
- tools/nut-scanner/nutscan-ip.c: trace getaddrinfo() failures
- tests/NIT/nit.sh: consider an empty output of nut-scanner an error (to retry from one mode to another)
- tools/nut-scanner/nut-scanner.c: typo (lacking newline) in an usage message
- NEWS.adoc, common/common.c: common/common.c: vupslogx(): dynamically adjust the needed buffer size for longer printouts, e.g. PATH in upsdebugx\_report\_search\_paths() [#317]
- common/common.c: vupslog(): stash errno value at start of method, so later calls do not corrupt what we want to report; fix declarations-on-top for windows builds
- common/common.c: fix get\_libname\_in\_pathset() increment of checked-directory counter Be sure to bump the number, not the pointer!
- common/common.c: fix get\_libname\_in\_pathset() mutilating the input pathset string It was unexpected to see just one entry in getenv("PATH") after the first loop...
- configure.ac, common/common.c: search\_paths[]: introduce MULTIARCH\_TARGET\_ALIAS as/if suggested by compiler [#317]
- common/common.c: vupslog(): print timestamp\+buf in one operation
- common/common.c: extend upsdebugx\_report\_search\_paths() to follow actual search order of get\_libname() with more locations possibly checked [#317]
- common/common.c: comment about peculiarities of search\_paths[] contents [#317]
- NEWS.adoc, UPGRADING.adoc, tools/nut-scanner/Makefile.am, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-init.c: nut-scanner: use upsdebugx\_report\_search\_paths() [#317] Also bumps public API version of libnutscan due to added symbol.
- common/common.c, include/common.h: common.{c,h}: introduce upsdebugx\_report\_search\_paths() [#317]
- data/driver.list.in: leave a note about Riello Netman "not-plus" SNMP card naming [#1878]

**2.428 2023-09-30 Axel Gembe <axel@gembe.net>**

- AUTHORS, data/driver.list.in, docs/man/Makefile.am, docs/man/apc\_modbus.txt, docs/nut.dict, drivers/Makefile.am, drivers/apc\_modbus.c, m4/nut\_check\_libmodbus.m4, tools/nut-usbinfopl: apc\_modbus: Support for APC Modbus protocol This adds a new driver called apc\_modbus to support the APC Modbus protocol over serial ports, TCP connections and USB ports. For USB support to work it needs a [patched libmodbus that has support for the APC USB Modbus encapsulation]([https://github.com/EchterAgo/libmodbus/commits/rtu\\_usb](https://github.com/EchterAgo/libmodbus/commits/rtu_usb)). If a libmodbus without USB support is detected the driver will build with just the serial and TCP/IP support.

**2.429 2023-09-21 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/nut-names.txt: clarify that the tables of short SPEC names is just a component in longer phase-aware naming scheme
  - docs/nut-names.txt: add a section to define and discuss Structured naming
  - ci\_build.sh: only impose GNU make as default if spellchecking via script
-

**2.430 2023-09-20 Jim Klimov <jimklimov@gmail.com>**

- docs/nut.dict: update dictionary for nut-website changes

**2.431 2023-09-20 Jim Klimov <jimklimov+nut@gmail.com>**

- ci\_build.sh: define MAKE=. . . fallback default in one place
- ci\_build.sh: --disable-spellcheck in many default BUILD\_TYPE=. . . scenarios geared towards binary builds and checks (do not waste time on aspell in matrix checking loops) [#2065]
- ci\_build.sh: make sure our MAKE envvar is defined and not empty - in all cases [jenkins-dynamatrix#24]

**2.432 2023-09-19 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/usb-common.c: make sure to have settings like HAVE\_LIBREGEX visible when processing other headers [#1369]
- drivers/usbhid-ups.c: fix visibility of vars used only in builds with HAVE\_LIBREGEX [#1369]
- docs/developers.txt, docs/nut.dict: clarify that NUT\_UNUSED\_VARIABLE goes after variable declarations, add chapter headings, revise some text [#2056]
- docs/Makefile.am: fix ChangeLog.adoc preparation for OpenBSD make [#1953]
- conf/Makefile.am, data/Makefile.am, docs/Makefile.am, docs/man/Makefile.am: \*/Makefile.am: spellcheck targets: differentiate SPELLCHECK\_SRCDIR vs. SPELLCHECK\_BUILDDIR [#2067]
- docs/Makefile.am: EXTRA\_DIST asciidoc-vars.conf [#1953]
- Makefile.am: Introduce LICENSE-DCO into the source codebase [#1994]
- configure.ac: configure: fix handling of --enable-cppcheck
- NEWS.adoc, UPGRADING.adoc, configure.ac, docs/Makefile.am, docs/configure.txt: configure.ac: introduce --enable-spellcheck to have it as part of "make check" where available [#2067]
- configure.ac, m4/nut\_check\_asciidoc.m4, m4/nut\_check\_aspell.m4: externalize detection of aspell tool and ability
- m4/nut\_check\_asciidoc.m4: consider a separate ASPELL\_FILTER\_SHARE\_PATH [#2065]
- appveyor.yml: enable spellchecks [#2065]
- m4/nut\_check\_asciidoc.m4: if there is no "tex.amf", do not yield a useless ASPELL\_FILTER\_TEX\_PATH (e.g. ".") [#2065]
- docs/man/nut\_usb\_addvars.txt, docs/nut.dict: docs/man/nut\_usb\_addvars.txt: clarify where "busport" can be verified in the OS [#2043]
- m4/nut\_check\_asciidoc.m4, docs/Makefile.am: cater to different ways of packaging aspell with ASPELL\_FILTER\_TEX\_PATH [#2065]

**2.433 2023-09-18 Jim Klimov <jimklimov@gmail.com>**

- drivers/Makefile.am: Update Makefile.am Steamline use of LIBREGEX\_CFLAGS via AM\_CFLAGS, same as others.
  - tools/nut-scanner/nutscan-display.c: fix report for "same serial in different devices"
  - tools/nut-scanner/nutscan-display.c: do not drop out after the first (non-NULL) report, let all complaints be known
  - tools/nut-scanner/nutscan-display.c: report trailing blanks in serial numbers
  - configure.ac: hush down some more clang "-Wextra" or "-Weverything" warnings that we can not really address [#2055, #823]
  - docs/nut.dict: Update with words missing in some platform default dictionaries
  - NEWS.adoc, drivers/ever-hid.c: drivers/ever-hid.c: fix "powerfactor" without a namespace
-

**2.434 2023-09-18 Jim Klimov <jimklimov+nut@gmail.com>**

- .gitignore: GitIgnore leftover conf1234.file patterns
- m4/nut\_check\_asciidoc.m4, docs/Makefile.am: detect and use ASPELL\_FILTER\_PATH where available Thanks to <https://github.com/msys2/MSYS2-packages/issues/2088> for hints
- drivers/nutdrv\_qx.c, docs/man/nutdrv\_qx.txt: list available "protocol" setting values in command-line usage request (--help) [#1369]
- drivers/usbhid-ups.c, docs/man/usbhid-ups.txt: list available "subdriver" setting values in command-line usage request (--help) [#1369]
- docs/man/nutdrv\_qx.txt, docs/man/usbhid-ups.txt: update man page notes about subdriver settings [#1369]
- m4/nut\_check\_libregex.m4: avoid using cached reply for the absent library name, when checking for -lregex
- ci\_build.sh: introduce initial clean-up shortcut (used if recipes change)
- .gitattributes: make sure docs/nut.dict is always LF (no CR)

**2.435 2023-09-17 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/usbhid-ups.c: match\_function\_subdriver\_name(): require (or recommend) vendorid/productid [#1369]
- drivers/usbhid-ups.c: match\_function\_subdriver\_name(): report the name of found USB HID subdriver [#1369]
- drivers/usbhid-ups.c: match\_function\_subdriver\_name(): automate use of regex "somename.\*" [#1369]
- NEWS.adoc, docs/man/usbhid-ups.txt, drivers/usbhid-ups.c: drivers/usbhid-ups.c: implement match\_function\_subdriver\_name() for "subdriver" matching option; update docs about it [#1369]
- clients/Makefile.am: build clients against libcommonclient.la (fewer link and run-time deps pulled), not libcommon.la
- common/Makefile.am, common/common.c, drivers/usb-common.c, include/common.h: common.{c,h}: move here general REGEX helper methods from drivers/usb-common.{c,h} [#1369]
- configure.ac, drivers/Makefile.am, m4/nut\_check\_libregex.m4, m4/nut\_check\_libusb.m4: m4/nut\_check\_libregex.m4: move detection from m4/nut\_check\_libusb.m4; adapt configure.ac and \*/Makefile.am accordingly
- NEWS.adoc, clients/cgilib.c, clients/upsclient.c, clients/upslog.c, clients/upsmon.c, clients/upsset.c, common/common.c, drivers/adelsystem\_cbi.c, drivers/al175.c, drivers/bcmxcp.c, drivers/bcmxcp\_ser.c, drivers/bestufferrups.c, drivers/blazer\_usb.c, drivers/dstate.c, drivers/eaton-pdu-marlin-mib.c, drivers/ever-hid.c, drivers/generic\_modbus.c, drivers/hidparser.c, drivers/hpe-pdu-mib.c, drivers/libusb0.c, drivers/mge-hid.c, drivers/mge-utalk.c, drivers/mge-xml.c, drivers/netxml-ups.c, drivers/nut-libfreeipmi.c, drivers/nutdrv\_atcl\_usb.c, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx\_ablerex.c, drivers/nutdrv\_qx\_bestups.c, drivers/nutdrv\_qx\_masterg, drivers/nutdrv\_siemens\_sitop.c, drivers/phoenixcontact\_modbus.c, drivers/pijuice.c, drivers/richcomm\_usb.c, drivers/riello.c, drivers/riello\_ser.c, drivers/riello\_usb.c, drivers/snmp-ups.c, drivers/socomec\_jbus.c, drivers/solis.c, drivers/tripplite.c, drivers/tripplite\_usb.c, drivers/tripplitesu.c, drivers/upsdrvctl.c, drivers/upsdrvquery.c, server/netssl.c, server/upsd.c, tests/getval-uetest.c, tests/nuttimetest.c, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-device.c, tools/nut-scanner/nutscan-init.c, tools/nut-scanner/nutscan-ip.c, tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_usb.c, tools/nut-scanner/scan\_xml\_http.c: Fightwarn: numerous complaints from clang-15 [#823] Surprised that so many of these were not found sooner. Almost all fall into a few simple categories: \* method(void) declared without a "void" \* declarations after code **NUT\_UNUSED\_VARIABLE() is code** scoping in switch() cases \* a few smartly detected unused variables ⇒ added reasonable use-cases (logging or better)
- scripts/upsdrvsvctnl/nut-driver-enumerator.sh.in: detect USB drivers by "busport" among config options [#2043]
- scripts/augeas/nutupsmonconf.aug.in: update for new notification types [#2044 and before]



**2.436 2023-09-16 Jim Klimov <jimklimov+nut@gmail.com>**

- conf/upsmon.conf.sample.in, docs/man/upsmon.conf.txt, docs/man/upsmon.txt, docs/nut.dict: upsmon(.conf) docs and samples
  - update for new notification types [#2044 and before]
- NEWS.adoc: upsmon now handles OFF and BYPASS states [#2044]
- clients/upsmon.c, clients/upsmon.h: clients/upsmon.{c,h}: enhance with support of OFF and BYPASS state reporting (entry/exit) [#2044]
- clients/upsmon.c, clients/upsmon.h: upsmon: add support for administrative "OFF" state [#2044] Based on patch by "Bomora" posted at <https://github.com/networkupstools/nut/issues/2044#issuecomment-1720752199>
- drivers/usbhid-ups.c: initialize BusPort where used [#2043]
- drivers/libshut.h: update with formal support of "busport" (no-op for serial mode) [#2043]
- tools/nut-scanner/scan\_usb.c: add support for "busport" discovery where possible [#2043]
- drivers/blazer\_usb.c, drivers/libshut.c, drivers/libusb0.c, drivers/libusb1.c, drivers/nutdrv\_qx.c, drivers/riello\_usb.c, drivers/tripplite\_usb.c, drivers/usb-common.c, drivers/usb-common.h, drivers/usbhid-ups.c: USB driver: adjust to WITH\_USB\_BUSPORT normally being always defined, just not always active [#2043]
- m4/nut\_check\_libusb.m4: detect if we can support "busport" USB matching value [#2043]
- docs/man/nut\_usb\_addvars.txt: fix markup for a NOTE about "device" value
- docs/man/nut\_usb\_addvars.txt: add "busport" info [#2043]
- docs/man/nut\_usb\_addvars.txt: fix typo about Linux path to usb device info
- NEWS.adoc, docs/nut.dict: NEWS.adoc: document the addition of "busport" config option [#2043]
- drivers/libusb0.c: use logging for bus port consistent with other USB-related libs [#2043]
- drivers/libshut.c: avoid potential small memory leak
- drivers/libshut.c: update with formal support of "busport" (no-op for serial mode) [#2043]
- drivers/usb-common.c: constrain regex\_matcher\_data\_t array size to USBMATCHER\_REGEX\_ARRAY\_LIMIT too (not a hardcoded number like before) [#2043]
- drivers/blazer\_usb.c, drivers/libusb0.c, drivers/libusb1.c, drivers/nutdrv\_qx.c, drivers/riello\_usb.c, drivers/tripplite\_usb.c, drivers/usbhid-ups.c: USB drivers: bump versions due to new "busport" config option support; free the variables in order of definition (ease maintenance) [#2043]
- drivers/blazer\_usb.c, drivers/nutdrv\_qx.c, drivers/riello\_usb.c, drivers/usbhid-ups.c: USB drivers: warn if "busport" is configured but will be ignored by current build [#2043]
- drivers/libusb0.c, drivers/libusb1.c: drivers/libusb{0,1}.c: allow configuring "busport" in ups.conf always, just note it may be ignored in certain builds [#2043]
- drivers/libusb1.c: allow configuring "busport" always, just note it may be ignored in certain builds [#2043]
- drivers/libusb0.c: log a notice that BusPort==0 for libusb0 [#2043]
- drivers/blazer\_usb.c, drivers/libusb1.c, drivers/nutdrv\_qx.c: Revise "ifdef" indentations
- drivers/blazer\_usb.c, drivers/nutdrv\_qx.c, drivers/riello\_usb.c, drivers/tripplite\_usb.c, drivers/usb-common.c, drivers/usb-common.h, drivers/usbhid-ups.c: Rename REGEXP\_ARRAY\_LIMIT⇒USBMATCHER\_REGEX\_ARRAY\_LIMIT [#2043]
- common/common.c: extend xstrdup() definition to return NULL if input was NULL (and log it) [#2052]
- common/common.c: Revert "common/common.c: extend xbasename(), xstrdup() and xrealloc() definition to return NULL if input was NULL (and log it) [#2052]" This reverts commit 05610d1564c9ea75d7e10780e2c0f8973e5795ab. Seems to cause segfaults on its own, maybe something relied on older behavior (non-NULLs returned in case of bad inputs?) To investigate separately later...

**2.437 2023-09-15 fa <wavebvg@gmail.com>**

- drivers/blazer\_usb.c, drivers/libusb0.c, drivers/libusb1.c, drivers/nutdrv\_qx.c, drivers/riello\_usb.c, drivers/tripplite\_usb.c, drivers/usb-common.c, drivers/usb-common.h, drivers/usbhid-ups.c: Update blazer\_usb.c, libusb0.c, and 7 more files. . .

**2.438 2023-09-14 Jim Klimov <jimklimov+nut@gmail.com>**

- clients/upsclient.c: upscli\_splitname(): add explicit checks for empty upsname and/or hostname[:port] parts, to report problems as such [#2052]
- NEWS.adoc: update for issue #2052 fix
- clients/upsclient.c: fix strdup()⇒xstrdup() to not segfault with bad inputs [#2052]
- common/common.c: extend xbasename(), xstrdup() and xrealloc() definition to return NULL if input was NULL (and log it) [#2052]
- docs/developers.txt: update links for SVN to Git migrations Thanks for Tomas Laurinavicius <tomas@saas.group> for the suggestion.

**2.439 2023-09-13 Jim Klimov <jimklimov@gmail.com>**

- UPGRADING.adoc: Update UPGRADING.adoc

**2.440 2023-09-13 Jim Klimov <jimklimov+nut@gmail.com>**

- Makefile.am, docs/Makefile.am: ensure clean-up of (now-)generated README file
  - UPGRADING.adoc: highlight changes to documentation source and delivered filenames [#1953]
  - README.adoc: Update NUT documentation sources with current docs/asciidoc-vars.conf: 7c5e90132 (2023-09-13)
  - docs/asciidoc-vars.conf: fence against re-definitions of website-url and (top\_)(src\build)dir attributes
  - docs/asciidoc-vars.conf: fence against duplicate includes
  - README.adoc: Update NUT documentation sources with current docs/asciidoc-vars.conf: 36f4f0334 (2023-09-13)
  - docs/asciidoc-vars.conf: update maintenance and reasoning comments
  - README.adoc: fix xref values for user-manual generation
  - .gitignore: GitIgnore /.vscode
  - configure.ac: revert AM\_INIT\_AUTOMAKE foreign option (may disable "portability checks" per GNU docs)
  - README.adoc, docs/Makefile.am, docs/asciidoc-vars.conf, docs/nut.dict: docs/nut.dict: update for new docs/asciidoc-vars.conf contents
  - README.adoc: Update NUT documentation sources with current docs/asciidoc-vars.conf: 234b70422 (2023-09-13)
  - README.adoc, docs/asciidoc-vars.conf: docs/asciidoc-vars.conf: finish the file with newline
  - docs/asciidoc-vars.conf: refer to make maintainer-asciidocs
  - README.adoc: mangle with "make maintainer-asciidocs"
  - .gitignore, Makefile.am, docs/.gitignore: Makefile.am: introduce "make maintainer-asciidocs" recipe
  - docs/asciidoc-vars.conf: prepare for GH\_MARKUP\_1095 workarounds
  - README.adoc: prepare for GH\_MARKUP\_1095 workarounds
-

- docs/asciidoc-vars.conf: Revert "docs/asciidoc-vars.conf: define our attributes in a different syntactic fashion" This reverts commit 300942904bef0921bba382103c9c4b96cc1c5f04.
- docs/asciidoc-vars.conf: Revert "docs/asciidoc-vars.conf: add a debug NOTE" This reverts commit 07a39b950b40857c8d8e5c806551
- README.adoc: refer to top\_srcdir first, it WILL be defined after the include
- docs/asciidoc-vars.conf: add a debug NOTE
- docs/asciidoc-vars.conf: define our attributes in a different syntactic fashion
- README.adoc: avoid a blank line between document header and include::docs/asciidoc-vars.conf
- docs/asciidoc-vars.conf: reshuffle and make it a single block of markup as far as asciidoc is concerned
- README.adoc: move renderer-dependent attribute definitions into includable docs/asciidoc-vars.conf
- docs/asciidoc-vars.conf: add an includable asciidoc file with renderer-dependent attribute definitions
- docs/ChangeLog.txt, docs/Makefile.am, docs/man/Makefile.am, docs/man/index.txt, docs/man/nutupsdrv.txt, docs/man/upsd.txt, docs/release-notes.txt, docs/user-manual.txt: docs: in asciidoc markup (and relevant Makefile rules) require that the trailing slash is part of (top\_) srcdir and (top\_) builddir attributes, so empty values are non-toxic
- Makefile.am: separate EXTRA\_DIST for \*.adoc and other filename patterns [#1953]
- docs/history.txt: add "Backwards and Forwards Compatibility" chapter evicted from README.adoc

#### 2.441 2023-09-12 Jim Klimov <jimklimov+nut@gmail.com>

- docs/nut.dict: add (Eaton) IPM
- docs/Makefile.am: adjust for BSD make implementation
- .gitignore: GitIgnore .adoc.tmp leftovers, if present [#1953] Probably meaning a broken build, though...
- .gitignore: GitIgnore old NEWS file by name [#1953]
- NEWS.adoc, UPGRADING.adoc, docs/Makefile.am, docs/release-notes.txt: docs/release-notes.txt: include UPGRADING as a chapter - it is also release-related info [#1953]

#### 2.442 2023-09-11 Jim Klimov <jimklimov@gmail.com>

- NEWS.adoc: change asciidoc link tag
- docs/nut.dict: Update nut.dict

#### 2.443 2023-09-11 Jim Klimov <jimklimov+nut@gmail.com>

- NEWS.adoc: revise asciidoc markup for old-release entries [#1953]
  - NEWS.adoc: highlight documentation/recipe changes per #1953
  - docs/Makefile.am: specify "builddir" path to generated docinfo.xml, and just ship a copy [follow-up from #2046 and probably before]
  - docs/Makefile.am: do not refer to generatable "../\*.adoc-parsed" files via hardcoded "../"
  - .gitignore, NEWS.adoc, docs/ChangeLog.txt, docs/Makefile.am, docs/documentation.txt, docs/release-notes.txt, docs/user-manual.txt: Introduce buildable (HTML/PDF) release-notes and ChangeLog documents [#1953]
  - .gitignore, Makefile.am, NEWS.adoc, docs/Makefile.am, docs/user-manual.txt: Use \*.adoc-parsed extension for post-processed asciidoc files used in rendering to HTML/PDF artifacts [#1953]
-

- Makefile.am, NEWS ⇒ NEWS.adoc, autogen.sh, docs/Makefile.am: Convert NEWS ⇒ NEWS.adoc (basic section structure) and render it as release-notes (HTML, PDF) [#1953]
- docs/Makefile.am: implement DOCBUILD\_FILTER\_GITHUB\_LINKS [#1953]
- .editorconfig, .gitignore, INSTALL.nut ⇒ INSTALL.nut.adoc, Makefile.am, TODO ⇒ TODO.adoc, UPGRADING ⇒ UPGRADING.adoc, docs/Makefile.am, docs/developer-guide.txt, docs/nut.dict, docs/security.txt, docs/user-manual.txt, lib/.gitignore, lib/Makefile.am, lib/{README ⇒ README.adoc}, scripts/Makefile.am, scripts/augeas/.gitignore, scripts/augeas/Makefile.am, scripts/augeas/{README ⇒ README.adoc}, scripts/ufw/.gitignore, scripts/ufw/Makefile.am, scripts/ufw/{README ⇒ README.adoc}, tools/nut-scanner/.gitignore, tools/nut-scanner/Makefile.am, tools/nut-scanner/{README ⇒ README.adoc}: Rename asciidoc-ready documentation sources to \*.adoc [#1953 et al] Follows up from #226, #669 and facilitates #1953
- UPGRADING: suggest --enable-option-checking=fatal for packagers
- docs/docinfo.xml.in: populate remaining "refremark" fields up to (prospective) NUT v2.8.1 release [#2046]
- docs/docinfo.xml.in, docs/docinfo.xml.sh: Revert "docs/docinfo.xml.sh: reference the NEWS file (GitHub URL for interactive PDFs) [#2046]" This reverts commit fa8721d98ee3031daed234d50643074e65a9c3a1 and changes for docinfo.xml.in applying it. Referencing the NEWS files for each release proved problematic: the revremark tag does not expect nested tags (like <a href> or even <p>).
- docs/docinfo.xml.in: populate "refremark" fields [#2046]
- docs/docinfo.xml.sh: reference the NEWS file (GitHub URL for interactive PDFs) [#2046]

#### 2.444 2023-09-10 Jim Klimov <jimklimov+nut@gmail.com>

- docs/docinfo.xml.in: update to list releases 2.6.1-2.8.0 missed before [#2046] First use of docinfo.xml.sh - looks decent
- docs/.gitignore, docs/Makefile.am, docs/docinfo.xml.in, docs/docinfo.xml.sh, docs/maintainer-guide.txt: Introduce docs/docinfo.xml.sh to help maintain docinfo.xml.in (currently limited to ensuring presence of existing tags) [#2046]
- tools/gitlog2changelog.py.in: bump ©
- configure.ac, docs/docinfo.xml.in: use current NUT\_SOURCE\_GITREV for doc revision history if available
- configure.ac: update comments
- docs/docinfo.xml.in: update "current version (snapshot)" comment
- docs/developer-guide.txt: update author list
- docs/maintainer-guide.txt: update release procedure
- docs/developers.txt, docs/nut.dict: docs/developers.txt: fix section-level warning, and add AppVeyor CI and CircleCI sections
- docs/new-drivers.txt: cosmetix fix (indent)
- docs/hid-subdrivers.txt, docs/nut.dict: docs/hid-subdrivers.txt: add a "screenshot" of rexx usage

#### 2.445 2023-09-07 Jim Klimov <jim@jimklimov.com>

- drivers/cyberpower-mib.c: Update cyberpower-mib.c Bump version after #2041

#### 2.446 2023-09-06 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/cyberpower-mib.c: restore upsAdvanceControlUpsSleep as "shutdown.return" [follow-up from #2029]
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**2.447 2023-09-05 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/main.c: comment why we do not solve VAR\_SENSITIVE for override/default right now [#1891]
- NEWS: formatting fix
- drivers/snmp-ups.c, NEWS: clearer messages for skipped mib2nut mappings New message example: 0.001836 [D2] load\_mib2nut: skip the "tripplite" entry from the mapping table which is not "ietf" (and which in turn is not "auto")
- drivers/snmp-ups.c: add a TODO for multi-MIB approach [#2036]
- drivers/blazer.c: fix typo in comment

**2.448 2023-09-04 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/nutdrv\_qx.c: dial back down the batt.volt.high guesstimation to 130/120 of the nominal (back from experimental 150/120) [#1652]

**2.449 2023-09-02 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/blazer\_ser.c, drivers/blazer\_usb.c, drivers/nutdrv\_qx.c: drivers/blazer\_{ser,usb}.c, drivers/nutdrv\_qx.c: re-bump driver versions since master versions moved while the PR #1652 was queued

**2.450 2023-09-01 Jim Klimov <jimklimov+nut@gmail.com>**

- data/driver.list.in: Add APC SmartUPS 750 (SMT750I) reports [#1261]

**2.451 2023-08-31 Jim Klimov <jimklimov+nut@gmail.com>**

- data/driver.list.in: Add APC SmartUPS X 750 (USB) reports [#1261]
- data/driver.list.in: Add APC SmartUPS SUA1000 (SNMP) reports [#1740]
- data/driver.list.in: Add UltraMax 1000SC reports [nut#1634]
- data/driver.list.in: Update PowerCool 1200 report nuances [#1539]
- data/driver.list.in: Add UPSonic IRT-3K 2U [#441]
- data/driver.list.in: Add Ippon Smart Power Pro II 1200/1600/... series [#701]

**2.452 2023-08-30 Ross Williams <ross@ross-williams.net>**

- drivers/cyberpower-mib.c: Revert "cyberpower-mib: fix instant command declarations" This reverts commit 8bcf255b624e6ba6c89a2a Cyberpower snmp\_info\_t got updated to conform with pre 5d97d07 instant commands layout, but got merged after it. Reverting 8bcf255 so that command values are correctly in su\_info\_t->dfl.

**2.453 2023-08-30 Jim Klimov <jimklimov@gmail.com>**

- NEWS: fix for cyberpower-mib instcmd definitions [#2029]
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**2.454 2023-08-30 Jim Klimov <jimklimov+nut@gmail.com>**

- data/driver.list.in: Update Riello SNMP HCL names (no vendor in model name usually)
- data/driver.list.in: Update Riello SER/USB/SNMP HCL per vendor report [#1878]
- data/driver.list.in: Add FSP Fortron UPS Champ 1000VA, 2000VA and 3000VA Towers [nut-ddl#22, nut#1691, nut#1741, nut#1872] Closes: #1691 Closes: #1741 Closes: #1872
- data/driver.list.in: Add APC Smart-UPS 3000 [nut-ddl#24]

**2.455 2023-08-25 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/libshut.c: libshut\_open(): calculate desc→wDescriptorLength differently (closer to what libusbX.c do and NUT v2.7.4 did); bump driver version [#2022]
- drivers/libshut.c: libshut\_open(): populate curDevice→Device to be on par with USB drivers (remember a copy of arg\_device\_path here)
- drivers/libshut.c: libshut\_open(): be sure that arg\_device\_path is not null
- NEWS: fix for MGE SHUT broken by changes in 2.8.0 [#2022]
- drivers/usbhid-ups.c: upsdrv\_initups(): only report "Initializing an USB-connected UPS with library. . ." when not in SHUT\_MODE [#2022]
- drivers/libhid.c: HIDGetEvents(): be sure to not overflow sizeof(buf)
- drivers/hidparser.h, drivers/libhid.c, drivers/libhid.h, drivers/mge-hid.c, drivers/usbhid-ups.c: Reword "#if(n)def SHUT\_MODE" clauses, comment their "#else/#endif" parts [#2022]
- drivers/hidparser.c, drivers/mge-hid.c, drivers/usbhid-ups.c: A few cosmetic fixes (typos, indents. . .)

**2.456 2023-08-17 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/nutdrv\_qx-subdrivers.txt, docs/nut.dict: fix some typos and update the dictionary [#2005]

**2.457 2023-08-14 Jim Klimov <jimklimov+nut@gmail.com>**

- server/upsd.c: setuptcp(): when informing about possible IPv6/IPv4 "ANY" address listener conflict, consult actual state in "canhaveAnyV6" and not the possibility via "serverAnyV6!=null" [#2013]
  - server/upsd.c: setuptcp(): update big comment about "LISTEN \*" nuances to match current logic; drop GitHub reference [#2013 review for #2012]
  - configure.ac: explicitly check for inet\_ntop() support along with both AF\_INET and AF\_INET6 (we have IPv4 and IPv6 capability everywhere, right?) [#2012]
  - NEWS, UPGRADING: finish full sentences with a period [#2012]
  - server/upsd.c: setuptcp(): drop the trickery to get IPv4 first just to see if we can, then release it, then get IPv6 and then IPv4 again [#2013 review for #2012]
  - server/upsd.c: setuptcp(): drop commented-away optional sleep() [#2012]
  - server/upsd.c: simplify LISTEN \* handling to not fiddle with optionality of require\_IPV6\_V6ONLY for one use-case [#2013 review, #2012]
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**2.458 2023-08-13 Tomasz Fortuna <bla@thera.be>**

- NEWS, docs/nut.dict, docs/nutdrv\_qx-subdrivers.txt: drivers/nutdrv\_qx.c: Add documentation file. Document various possible transmissions. Might be required to construct testcases one day - adding new UPS shouldn't cause regressions in older ones.

**2.459 2023-08-13 Jim Klimov <jimklimov@gmail.com>**

- NEWS: cyberpower-mib.c supports more data points now [#1982]
- drivers/cyberpower-mib.c: bump version for new entries

**2.460 2023-08-13 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS, UPGRADING, conf/upsd.conf.sample, docs/config-notes.txt, docs/man/upsd.conf.txt, docs/security.txt, scripts/augeas/nutpsdconf.aug.in: Revise doc changes about LISTEN
- support per PR #2013 discussion Notably: \* move from "would" to "will" verbiage; \* specify IPv6 listening first, IPv4 next, as it goes in code; \* lean towards trying to listen on two sockets separately always (unless the OS refuses to avoid IPv4-mapped IPv6 addressing).

**2.461 2023-08-12 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS, drivers/apcsmart-old.c, drivers/apcsmart.c: drivers/apcsmart(-old).c: do not abort on bad caps, skip them like before [#2015] Closes: #2015

**2.462 2023-08-08 Tomasz bla Fortuna <bla@thera.be>**

- drivers/nutdrv\_qx.c: Support a quirk in Vultech V2000 UPS. This UPS seems to use null bytes within status bits. This might mean "unsupported". We will treat them as zeroes.

**2.463 2023-08-06 Craig Holyoak <craig@helmsdeep.org>**

- drivers/cyberpower-mib.c: Moved additional ups.status to ups.alarm

**2.464 2023-08-05 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS, UPGRADING, conf/upsd.conf.sample, docs/config-notes.txt, docs/man/upsd.conf.txt, docs/security.txt, scripts/augeas/nutpsdconf.aug.in, server/upsd.c: server/upsd.c and docs/config examples: handle "LISTEN \*" deterministically (for both IPv4 and IPv6 if we can) [#2012]
  - server/upsd.c, NEWS, UPGRADING: setuptcp(): when asked to LISTEN on IPv6 addresses, try to disable IPv4-mapping support [#2012]
  - server/upsd.c: refactor server\_free() with a new stype\_free() [#2012]
  - server/upsd.c: setuptcp(): warn if we bound to one address for a name and end the loop while there seem to be more resolved addresses for it [#2012]
  - server/upsd.c: server\_load(): log if defaulting to localhost (IPv4/IPv6) due to lack of LISTEN directive [#2012]
  - NEWS: typo fix
  - server/upsd.c, NEWS, UPGRADING: listen\_add(): firstaddr should remain first [#2012]
  - drivers/nutdrv\_qx.c: convert to ARMAC\_READ\_SIZE as a macro
-



**2.465 2023-08-04 Jim Klimov <jimklimov+nut@gmail.com>**

- common/state.c: in state\_delinfo\_olderthan() do upsdebugx(6,...) that we are deleting an entry because it is too old [#2007]
- common/state.c: update comment for st\_tree\_node\_compare\_timestamp() [#2007]
- drivers/apcupsd-ups.c: fix use of INVALID\_FD\_SOCKET() macro over complex expression [#2007]
- docs/Makefile.am: spellcheck LICENSE-DCO file [#1995 follow-up]
- NEWS: move apcupsd fixes mis-placed into 2.8.0 notes block [#2007]
- NEWS: announce support for state entry timestamping [#2010]
- tests/.gitignore, tests/Makefile.am, tests/nuttimetest.c: Introduce nuttimetest (sanity-check difftime\*() methods, etc.) [#2007, #1777]
- configure.ac: fix broken test for clock\_gettime(CLOCK\_MONOTONIC,ts) [#1777 follow-up]
- common/common.c: fix build scope for calls to timespec\_load() and use of got\_monoclock in upsnotify() [#1777 follow-up]
- drivers/nutdrv\_qx.c: cast signed/unsigned int comparison

**2.466 2023-08-03 Jim Klimov <jimklimov@gmail.com>**

- drivers/nutdrv\_qx.c: Update drivers/nutdrv\_qx.c Fix debug printout

**2.467 2023-08-03 Jim Klimov <jimklimov+nut@gmail.com>**

- common/state.c: initialize "lastset" in "state\_setinfo()" when adding a new value
  - NEWS: use dstate\_delinfo\_olderthan() to clean up obsoleted readings AFTER refreshing data from apcupsd daemon [#2007]
  - drivers/apcupsd-ups.c: use dstate\_delinfo\_olderthan() to clean up obsoleted readings AFTER refreshing data from apcupsd daemon [#2007]
  - drivers/dstate.c, drivers/dstate.h: drivers/dstate.{c,h}: introduce dstate\_delinfo\_olderthan()
  - drivers/apcupsd-ups.c: refactor getdata() return code paths [#2007]
  - common/state.c, include/state.h: introduce state\_delinfo\_olderthan()
  - common/state.c, include/state.h: introduce st\_tree\_timespec\_t and state\_get\_timestamp() and st\_tree\_node\_compare\_timestamp() to track age of state entries
  - common/common.c, include/common.h: introduce difftimespec() for completeness
  - common/common.c: clarify "nsec" as "numsec" (not "nanosec") in difftimeval()
  - NEWS: fix check for POLL\_INTERVAL\_MIN [#2007, #797 fallout]
  - NEWS: fix markup for "new devices" in 2.7.4
  - drivers/apcupsd-ups.c: fix check for POLL\_INTERVAL\_MIN [#2007, #797 fallout]
  - tools/nut-ddl-dump.sh: suggest posting the file to nut-ddl repo
  - tools/nut-ddl-dump.sh: update generated markup
-

**2.468 2023-08-02 Jim Klimov <jimklimov+nut@gmail.com>**

- tools/nut-ddl-dump.sh: generate the report with use of DEVICE:COMMENT: and DEVICE:COMMENT-BLOCK:FIXME:(UPSRW sections (and place them after upsc dump) Related-to: <https://github.com/networkupstools/nut-ddl/issues/32>
- tools/nut-ddl-dump.sh: update scripting style (quotes, comments, etc)

**2.469 2023-07-31 Tomasz Fortuna <bla@thera.be>**

- NEWS, data/driver.list.in, drivers/nutdrv\_qx.c: drivers/nutdrv\_qx.c: improve Armac subdriver Based on a debug output from a newer device (\*PF1) we've improved understanding on how: - those devices encode the length of a chunk of data. - how the end of transmission can be marked / detected. Changed: - Empty buffer before sending command to clear any residual data. - Detect end of message by end of line character \r (0x0d). - Refactor "6" into a READ\_SIZE constant. - Limit bytes\_available nibble to available READ\_SIZE.

**2.470 2023-07-31 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS, drivers/cyberpower-mib.c, drivers/cyberpower-mib.h, drivers/snmp-ups.c: drivers/cyberpower-mib.c, NEWS: extend support to devices which report the shorter Vendor OID as their sysOID [#1997] Closes: #1997

**2.471 2023-07-30 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/features.txt: update notes about networked devices and about Windows builds
- docs/user-manual.txt, docs/features.txt: bump manufacturer count
- docs/nut.dict: nut.dict: bump for nut-website changes
- docs/nut.dict: nut.dict: bump for nut-website changes
- docs/nut.dict: nut.dict: bump for nut-website changes

**2.472 2023-07-30 Jim Klimov <jim@jimklimov.com>**

- COPYING: Update COPYING about LICENSE-DCO file Follow-up to #1995

**2.473 2023-07-18 Jim Klimov <jimklimov+nut@gmail.com>**

- .github/pull\_request\_template.md, docs/developers.txt, docs/nut.dict: docs/developers.txt: add a chapter on DCO (Signed-Off-By) [#1994]
- LICENSE-DCO: Introduce LICENSE-DCO into the source codebase [#1994]

**2.474 2023-07-09 Jim Klimov <jimklimov+nut@gmail.com>**

- Jenkinsfile-dynamatrix: try to ensure that stageName matches the dsbc contents [jenkins-dynamatrix#15]

**2.475 2023-07-07 Craig Holyoak <cholyoak@redlands.qld.edu.au>**

- drivers/cyberpower-mib.c: Added more variables from the CyberPower MIB
-

**2.476 2023-07-03 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/security.txt: fix ASCIIDOC markup [#1976]
- docs/download.txt: chunked-HTML chapter for "security.txt" moved due to daisychain years ago
- scripts/python/Makefile.am: no need to (re)define Makefile variable MSGFMT - already handled by autotools [#1977]

**2.477 2023-07-02 Jim Klimov <jimklimov@gmail.com>**

- scripts/python/Makefile.am: refactor gettext translations to grep up source (text) file instead the output
- scripts/python/Makefile.am: refactor gettext translations
- scripts/python/Makefile.am: avoid POT-Creation-Date in gettext translations

**2.478 2023-07-02 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/python/Makefile.am: be sure target dirs for MSGFMT exist - regardless of ABS paths
- scripts/python/Makefile.am: be sure target dirs for MSGFMT exist
- docs/config-prereqs.txt: be sure to use pip3 for python3 examples
- scripts/python/Makefile.am: fix msgfmt call syntax for non-GNU makes

**2.479 2023-07-01 Jim Klimov <jimklimov+nut@gmail.com>**

- .../python/app/locale/fr/LC\_MESSAGES/NUT-Monitor.mo, scripts/python/app/locale/fr/fr.po: scripts/python/app/locale/fr/\*: set custom Project-Id-Version same as in other translations
- .../python/app/locale/fr/LC\_MESSAGES/NUT-Monitor.mo, .../python/app/locale/it/LC\_MESSAGES/NUT-Monitor.mo, .../python/app/locale/nl/LC\_MESSAGES/NUT-Monitor.mo: scripts/python/app/locale/\*/LC\_MESSAGES/NUT-Monitor.mo: update binary translation files
- configure.ac, docs/config-prereqs.txt, docs/nut.dict, scripts/python/Makefile.am: scripts/python/Makefile.am, configure.ac, docs/config-prereqs.txt: use gettext msgfmt to compile binary translation files

**2.480 2023-06-30 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/security.txt, docs/nut.dict: add a chapter on checksum file verification [#1963]
- docs/security.txt: add maintainer notes on updating nut-key.gpg [#1963]
- docs/security.txt, docs/nut.dict: update "verifySourceSig" chapter with new GPG key set for "Jim Klimov ..." DE0184DA7043DCF7 [#1963]
- docs/security.txt: clarify that GPG tool output varied over eons
- AUTHORS, NEWS, README, data/html/header.html.in, data/html/index.html, docs/FAQ.txt, docs/asciidoc.conf, docs/documentation.txt, docs/download.txt, docs/features.txt, docs/hid-subdrivers.txt, docs/history.txt, docs/man/adelsystem\_cbi.txt, docs/man/all175.txt, docs/man/apcsmart-old.txt, docs/man/apcsmart.txt, docs/man/apcupsd-ups.txt, docs/man/asem.txt, docs/man/bcmxcp.txt, docs/man/bcmxcp\_usb.txt, docs/man/belkin.txt, docs/man/belkinunv.txt, docs/man/bestfcom.txt, docs/man/bestfortress.txt, docs/man/bestuferrups.txt, docs/man/bestups.txt, docs/man/blazer-common.txt, docs/man/clone.txt, docs/man/dummy-ups.txt, docs/man/etapro.txt, docs/man/everups.txt, docs/man/gamatronic.txt, docs/man/generic\_gpio.txt, docs/man/generic\_modbus.txt, docs/man/genericups.txt, docs/man/hosts.conf.txt, docs/man/huawei-ups2000.txt, docs/man/isbmex.txt, docs/man/ivtscd.txt, docs/man/libupsclient-config.txt, docs/man/liebert-esp2.txt, docs/man/liebert.txt, docs/man/macosex-ups.txt, docs/man/masterguard.txt, docs/man/metasyt.txt, docs/man/mge-shut.txt, docs/man/mge-utalk.txt, docs/man/microdowell.txt, docs/man/microsoft-apc.txt, docs/man/netxml-ups.txt, docs/man/nut-driver-enumerator.txt, docs/man/nut-ipmipsu.txt, docs/man/nut-recorder.txt,

docs/man/nut-scanner.txt, docs/man/nut.conf.txt, docs/man/nutdrv\_atcl\_usb.txt, docs/man/nutdrv\_qx.txt, docs/man/nutdrv\_siemens\_s, docs/man/nutupsdrv.txt, docs/man/oneac.txt, docs/man/optiups.txt, docs/man/phoenixcontact\_modbus.txt, docs/man/pijuice.txt, docs/man/powercom.txt, docs/man/powerman-pdu.txt, docs/man/powerpanel.txt, docs/man/rhino.txt, docs/man/richcomm\_usb.txt, docs/man/riello\_ser.txt, docs/man/riello\_usb.txt, docs/man/safenet.txt, docs/man/skel.txt, docs/man/snmp-ups.txt, docs/man/-sockdebug.txt, docs/man/socomec\_jbus.txt, docs/man/solis.txt, docs/man/tripplite.txt, docs/man/tripplite\_usb.txt, docs/man/tripplitesu.txt, docs/man/ups.conf.txt, docs/man/upsc.txt, docs/man/upscmd.txt, docs/man/upscode2.txt, docs/man/upsd.conf.txt, docs/man/upsd.txt, docs/man/upsd.users.txt, docs/man/upsdrvctl.txt, docs/man/upsdrvsvctl.txt, docs/man/upsimage.cgi.txt, docs/man/upslog.txt, docs/man/upsmon.conf.txt, docs/man/upsmon.txt, docs/man/upsrw.txt, docs/man/upssched.conf.txt, docs/man/upssched.txt, docs/man/upsset.cgi.txt, docs/man/upsset.conf.txt, docs/man/upsstats.cgi.txt, docs/man/upsstats.html.txt, docs/man/usbhid-ups.txt, docs/man/victronups.txt, docs/new-clients.txt, docs/nut-names.txt, docs/security.txt, docs/snmp.txt, docs/support.txt, docs/user-manual.txt, drivers/apcsmart.c, drivers/blazer.c, drivers/blazer.h, drivers/blazer\_ser.c, drivers/blazer\_usb.c, drivers/delta\_ups-mib.c, drivers/eaton-pdu-marlin-mib.c, drivers/hpe-pdu-mib.c, drivers/libhid.c, drivers/libusb0.c, drivers/libusb1.c, drivers/nut\_libusb.h, drivers/optiups.c, drivers/riello.c, drivers/riello.h, drivers/riello\_ser.c, drivers/riello\_usb.c, indent.sh, scripts/Aix/nut.aix.spec.in, scripts/Solaris/pkginfo.in, scripts/Windows/build-mingw-nut.sh, scripts/perl/Nut.pm, scripts/python/app/locale/NUT-Monitor.pot, .../app/locale/fr/LC\_MESSAGES/NUT-Monitor.mo, scripts/python/app/locale/fr/fr.po, .../app/locale/it/LC\_MESSAGES/NUT-Monitor.mo, scripts/python/app/locale/it/it.po, .../app/locale/ru/LC\_MESSAGES/NUT-Monitor.mo, scripts/python/app/locale/ru/ru.pot, scripts/python/app/ui/aboutdialog1.ui, scripts/python/app/ui/gui-1.3.glade, scripts/python/app/ui/gui-1.3.glade.h, server/netget.c, server/netmisc.c, tools/nut-ddl-dump.sh, tools/nut-usbinfo.pl: Wholesale update of website URL to "https://www.networkupstools.org/

- drivers/generic\_gpio\_common.h, drivers/generic\_gpio\_libgpiod.h: drivers/generic\_gpio\*.h: style (whitespace) fixes
- drivers/apcsmart.c, drivers/apcsmart.h, drivers/generic\_gpio\_libgpiod.c, drivers/generic\_gpio\_libgpiod.h: drivers/generic\_gpio\_libgpiod.h: drivers/apcsmart.{c,h}: move DRIVER\_NAME and DRIVER\_VERSION from header to C source file as in other drivers
- drivers/adelsystem\_cbi.c, drivers/al175.c, drivers/apcsmart-old.c, drivers/apcsmart.h, drivers/apcupsd-ups.c, drivers/asem.c, drivers/bcmxcp.c, drivers/bcmxcp\_ser.c, drivers/belkin.c, drivers/belkinunv.c, drivers/bestfcom.c, drivers/bestfortress.c, drivers/bestuferrups.c, drivers/bestups.c, drivers/blazer\_ser.c, drivers/blazer\_usb.c, drivers/clone-outlet.c, drivers/clone.c, drivers/dummy-ups.c, drivers/etapro.c, drivers/everups.c, drivers/gamatronic.c, drivers/generic\_gpio\_libgpiod.h, drivers/generic\_modbus.c, drivers/genericups.c, drivers/huawei-ups2000.c, drivers/isbmex.c, drivers/ivtsd.c, drivers/liebert-esp2.c, drivers/liebert.c, drivers/macosex-ups.c, drivers/masterguard.c, drivers/metasys.c, drivers/mge-utalk.c, drivers/microdowell.c, drivers/microsol-apc.c, drivers/netxml-ups.c, drivers/nut-ipmipsu.c, drivers/nutdrv\_atcl\_usb.c, drivers/nutdrv\_qx.c, drivers/nutdrv\_siemens\_sitop.c, drivers/oneac.c, drivers/optiups.c, drivers/phoenixcontact\_modbus.c, drivers/pijuice.c, drivers/powercom.c, drivers/powerman-pdu.c, drivers/powerpanel.c, drivers/rhino.c, drivers/richcomm\_usb.c, drivers/riello\_ser.c, drivers/riello\_usb.c, drivers/safenet.c, drivers/skel.c, drivers/snmp-ups.c, drivers/socomec\_jbus.c, drivers/solis.c, drivers/tripplite.c, drivers/tripplite\_usb.c, drivers/tripplitesu.c, drivers/upscode2.c, drivers/usbhid-ups.c, drivers/victronups.c: Bump all driver versions before NUT v2.8.1 release [#1951] Follow-up after core driver changes (main.c etc.) with driver.state #1767, driver reload command #1903, driver inter-instance communications via socket #1922 and others. Also convert remaining single-digit X.Y versions to X.<Y>+1>0 double-digits.

#### 2.481 2023-06-29 Jim Klimov <jimklimov+nut@gmail.com>

- docs/man/nut-scanner.txt, docs/man/snmp-ups.txt: clarify that secLevel is required to use non-trivial authentication [#734]

#### 2.482 2023-06-26 Jim Klimov <jimklimov+nut@gmail.com>

- docs/maintainer-guide.txt: stress the release git tag rituals [#1971]

#### 2.483 2023-06-18 Jim Klimov <jimklimov+nut@gmail.com>

- docs/nut-names.txt: reference docs/new-drivers.txt by name for device status data definitions

#### 2.484 2023-06-17 Blaz Zakrajsek <zakrajsek.blaz@gmail.com>

- drivers/liebert-hid.c: Apply code review fixes - Replace non-standard variable names for Full charge capacity and Design capacity - Prefix with experimental

**2.485 2023-06-16 Blaz Zakrajsek <zakrajsek.blaz@gmail.com>**

- drivers/liebert-hid.c: Improve liebert-hid driver - Add additional properties by analyzing the HID descriptor of the PowerWalker VI 1200 SHL - Existing properties were kept as they are to avoid breakage with other devices using the same driver

**2.486 2023-06-14 Jim Klimov <jimklimov@gmail.com>**

- clients/upssched.c: add enter/exit log tracing of sock\_read() [#1964]

**2.487 2023-06-13 Jim Klimov <jimklimov@gmail.com>**

- NEWS: upssched CPU burn fixed [#1965, #1964]
- NEWS, docs/man/upssched.txt, clients/upssched.c: warn that enabled debug remains noisy for daemon part too [#1965]
- clients/upssched.c: start\_daemon() loop (POSIX builds): generally throttle in case we have empty sock\_read()s [#1964]
- clients/upssched.c: if we consistently get read()==0, abort eventually (even if no formal errors are reported) [#1964]
- clients/upssched.c: do not close STDERR of the daemon (to re-open as /dev/null) when nut\_debug\_level!=0 (follow-up from [#1879, #1889])
- clients/upssched.c: log-trace when the process (daemon or CLI) exits

**2.488 2023-06-13 Jim Klimov <jimklimov+nut@gmail.com>**

- clients/upssched.c: improve logging of client connection life cycle
- tests/NIT/nit.sh: typo fix

**2.489 2023-06-08 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/download.txt: update references to NUT client for VMWare ESXi
  - fix wording [#1961]
- docs/download.txt: update references to NUT client for VMWare ESXi
  - fix asciidoc markup [#1961]
- NEWS: update with reference to NUT client for VMware ESXi" project on GitHub [#1961]
- docs/download.txt: update references to NUT client for VMware ESXi And link to NUT Wiki for further setup suggestions

**2.490 2023-06-05 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/new-drivers.txt, docs/nut-names.txt: no need for custom anchor for \_status\_data, change link style instead [#1957]
- docs/man/upslog.txt: refer to documentation on supported variable names [#1957]
- docs/new-drivers.txt: add anchor for \_status\_data [#1957]

**2.491 2023-06-02 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS, UPGRADING: make note that ChangeLog file markup will differ from that in older NUT releases [#1955]
  - tools/gitlog2changelog.py.in: update TextWrapper settings to not break up file paths Follows up from #1945
-

**2.492 2023-06-01 Xavier Delaruelle <xavier.delaruelle@cea.fr>**

- tools/gitlog2changelog.py.in: tools/gitlog2changelog.py: fix bitwise AND into regular AND Several if conditions where using bitwise AND whereas the intent was to do a regular AND test.

**2.493 2023-06-01 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/nut.dict: update with OpenPGP [#1410]
- NEWS, docs/nut.dict: NEWS: published new maintainer GPG key DE0184DA7043DCF7 [#1410]
- configure.ac, include/Makefile.am: constrain use of "git describe" to release tags [#1949, nut-website#35, nut-website#34]

**2.494 2023-05-26 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/documentation.txt: refer to NUT GitHub Wiki
- docs/documentation.txt: refer to HCL from near DDL
- docs/developers.txt: reword a bit about IDE support

**2.495 2023-05-24 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/nut.dict: bump for IntelliJ

**2.496 2023-05-23 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/developers.txt: typo fix
- docs/developers.txt: add a mention of IntelliJ IDEA
- docs/developers.txt: fix asciidoc table markup; update a few comments for Windows development environments
- Jenkinsfile-dynamatrix: withEnvOptional() was refactored from "infra" to a standalone step

**2.497 2023-05-19 Xavier Delaruelle <xavier.delaruelle@cea.fr>**

- tools/gitlog2changelog.py.in: tools/gitlog2changelog.py: apply Flake8 suggestions Apply on gitlog2changelog.py most code change suggestions from Flake8 Python style guide enforcement tool.
- tools/gitlog2changelog.py.in: tools/gitlog2changelog.py: apply Black suggestions Apply on gitlog2changelog.py code change suggestions from Black Python code formatter.
- tools/gitlog2changelog.py.in: tools/gitlog2changelog.py: fix expected git log format Update gitlog2changelog.py script to ensure git log format is not influenced by user git configuration.

**2.498 2023-05-19 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/developers.txt, docs/nut.dict: docs/developers.txt: chapter on VSCode setup
  - docs/developers.txt: update notes for IDE setup for debug symbols
  - docs/nut.dict: docs/developers.txt: update notes for IDE (specifically NetBeans on Windows) setup
  - docs/developers.txt: update notes for IDE (specifically NetBeans on Windows) setup
-

**2.499 2023-05-13 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/man/Makefile.am: typo fix to not override man8\_MANS definition

**2.500 2023-05-12 Jim Klimov <jim@jimklimov.com>**

- docs/man/sockdebug.txt: Update sockdebug.txt Fix markup (and a progname mention), add original code authors.

**2.501 2023-05-11 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/man/sockdebug.txt: fix formatting; clarify standard state path handling (POSIX builds) [#1936]
- docs/man/index.txt: mention new sockdebug[8] man page
- clients/upssched.c: start\_daemon(): transplant STDIN\_FILENO/STDOUT\_FILENO/STDERR\_FILENO handling instead of hardcoded numbers, from common.c [#1879, #1881]
- drivers/upsdrvquery.c: upsdrvquery\_read\_timeout(): only log subsequent sleep-time diffs if we retried a sleep
- drivers/upsdrvquery.c: upsdrvquery\_read\_timeout(): fix retry-delays to 0.1sec (100msec, 100000usec)
- drivers/upsdrvquery.c: clearer parentheses and markup
- drivers/upsdrvquery.c: upsdrvquery\_prepare(): fix time subtraction
- drivers/upsdrvquery.c: upsdrvquery\_oneshot(): bump the sleep for upsdrvquery\_read\_timeout() PING/PONG
- drivers/upsdrvquery.c: upsdrvquery\_read\_timeout(): more tracing of time tracking
- drivers/upsdrvquery.c: use difftimeval() and better-precision struct timeval
- common/common.c, include/common.h: introduce a difftimeval()
- drivers/upsdrvquery.c: fix multipliers around tv\_usec (10e6 not 10e3)
- drivers/upsdrvquery.c: upsdrvquery\_read\_timeout(): accept shorter delays, Windows does not guarantee a minimum sleep it seems
- drivers/upsdrvquery.c: fix whitespace
- server/sockdebug.c: address clang warnings

**2.502 2023-05-10 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/upsdrvquery.c: fix whitespace
  - drivers/upsdrvquery.c: upsdrvquery\_prepare(): fix finishing quickly after a PONG
  - drivers/upsdrvquery.c: enable a timeout and PING/PONG when preparing the connection
  - docs/man/sockdebug.txt: update for unified ability to "make sockdebug" and no longer required fully-qualified path to socket in POSIX builds
  - docs/sock-protocol.txt: update for unified ability to "make sockdebug" and no longer required fully-qualified path to socket in POSIX builds
  - drivers/upsdrvquery.c: use PING after NOBROADCAST to minimize delays while playing safe [#1928]
  - drivers/upsdrvquery.c: whitespace fixes
  - server/sockdebug.c: fall back to dflt\_statepath() when not using a full path to socket
  - server/Makefile.am, NEWS, UPGRADING: install sockdebug if configured --with-dev
  - docs/man/Makefile.am, docs/man/sockdebug.txt, docs/nut.dict: Introduce docs/man/sockdebug.txt
  - Makefile.am: add a way to "make sockdebug" regardless of target platform
-



### 2.503 2023-04-24 Jim Klimov <jimklimov+nut@gmail.com>

- conf/upsset.conf.sample, docs/man/upsset.conf.txt, docs/nut.dict: docs/man/upsset.conf.txt, conf/upsset.conf.sample: document CGI securing syntax for modern Apache Thanks to Phil Stracchino <phils at caerllewys.net> for suggestions: <https://alioth-lists.debian.net/pipermail/nut-upsuser/2023-April/013262.html>
- drivers/upsdrvctl.c: when starting to send\_all\_drivers() or send\_one\_driver(), reset exec\_error to 0 [#1927]
- drivers/main.c, drivers/upsdrvctl.c: drivers/upsdrvctl.c, drivers/main.c: use upsdrvquery\_oneshot() caller-provided timeouts [#1929] Closes: #1929
- drivers/upsdrvquery.c, drivers/upsdrvquery.h: drivers/upsdrvquery.c: upsdrvquery\_oneshot(): support optional caller-provided timeouts [#1929]
- drivers/upsdrvquery.c: upsdrvquery\_request(): report how long we wait (and support indefinite waits) [#1914]
- docs/new-drivers.txt, docs/nut.dict: docs/new-drivers.txt: upsdrv\_shutdown() must not exit() anymore [#1923]
- drivers/dummy-ups.c: do not ignore return of getcwd() [#1921]
- NEWS: Update about reload ability [#1903, #1914, #1924] and new use of driver.killpower instcmd [#1917, #1923]
- drivers/upsdrvquery.c: typo fix
- drivers/dummy-ups.c: handle "-x port=/path" or "C:\somepath" (WIN32) [#1921] Closes: #1921
- drivers/main.c: try to do\_forceshutdown via socket protocol with a running driver first [#1923] Closes: #1923
- drivers/all175.c, drivers/apcupsd-ups.c, drivers/asem.c, drivers/bcmxcp.c, drivers/blazer.c, drivers/clone-outlet.c, drivers/clone.c, drivers/dummy-ups.c, drivers/generic\_gpio\_common.c, drivers/generic\_modbus.c, drivers/genericups.c, drivers/huawei-ups2000.c, drivers/isbmex.c, drivers/ivtsd.c, drivers/liebert.c, drivers/macosx-ups.c, drivers/main.c, drivers/netxml-ups.c, drivers/nut-ipmipsu.c, drivers/nutdrv\_qx.c, drivers/phoenixcontact\_modbus.c, drivers/powercom.c, drivers/powerman-pdu.c, drivers/riello\_ser.c, drivers/riello\_usb.c, drivers/safenet.c, drivers/skel.c, drivers/snmp-ups.c, drivers/socomec\_jbus.c, drivers/usbhid-ups.c: drivers/\*: Avoid exit() and fatalx() in upsdrv\_shutdown() handlers; set\_exit\_flag() instead [#1923]
- scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: clarify in logged messages that we are **reloading or** restarting daemons
- scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: avoid re-definition of the driver if we can just reload it [#1924] Closes: #1924
- drivers/upsdrvquery.c: upsdrvquery\_request(): drop received unrecognized queued replies [#1914]
- drivers/upsdrvquery.c, drivers/upsdrvquery.h: drivers/upsdrvquery.{c,h}: add a way to request new ReadFile() operation on WIN32 [#1914]
- drivers/upsdrvquery.c: update messages [#1914]
- drivers/upsdrvquery.c: rectify timeout processing precision [#1914]

### 2.504 2023-04-23 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/upsdrvquery.c: upsdrvquery\_oneshot(): do not wait for NOBROADCAST to flush, we now support not-bailing on unexpected lines [#1920]
- drivers/upsdrvquery.c: upsdrvquery\_read\_timeout(): support zeroed-out "tv" as disable of wait
- drivers/upsdrvquery.c: upsdrvquery\_prepare(): support zeroed-out "tv" as disable of wait
- drivers/upsdrvctl.c: enable "-c reload-or-error" on WIN32 [#1914, #1903]
- drivers/upsdrvquery.c, drivers/upsdrvquery.h: drivers/upsdrvquery.{c,h}: refactor to pass udq\_pipe\_conn\_t around, and complete WIN32 fixes [#1914]
- docs/developers.txt: expand with a few IDE notes on Windows

- drivers/upsdrvquery.c: fix upsdrvquery\_read\_timeout() for WIN32 builds [#1903, #1914]
- ci\_build.sh: suggest follow-up to poor maintainer-clean handling in autotools
- include/upsconf.h, common/upsconf.c, server/conf.c, server/upsd.c, drivers/main.c, drivers/upsdrvctl.c: change read\_upsconf() API so it is not always fatal [#1903]
- drivers/main.c, drivers/main.h: drivers/main.c: enable SIGCMD\_RELOAD\_OR\_ERROR handling for WIN32 [#1914, #1903]
- drivers/main.c: address compiler style warning
- drivers/upsdrvquery.c: upsdrvquery\_connect(): copy-paste fixes for WIN32 part [#1903, #1914]
- drivers/main.c: address compiler style warning

## 2.505 2023-04-22 Jim Klimov <jimklimov+nut@gmail.com>

- docs/man/nutupsdrv.txt, docs/man/upsdrvctl.txt, drivers/main.c, drivers/main.h, drivers/upsdrvctl.c: drivers/main.{c,h}, upsdrvctl sources and docs: add "reload-or-error" CLI handling [#1903, #1914] Handle SIGCMD\_RELOAD\_OR\_ERROR commands to running drivers via upsdrvquery\_oneshot()
- drivers/Makefile.am, drivers/upsdrvquery.c, drivers/upsdrvquery.h: drivers/upsdrvquery.{c,h}, drivers/Makefile.am: Introduce a socket protocol client for quickshot commands [#1903, #1914]
- docs/man/nutupsdrv.txt: add placeholder for "-c reload-or-restart" CLI argument [#1903]
- drivers/main.c: main\_instcmd(): add placeholder for "driver.reload-or-restart" support [#1903, #1914]
- drivers/main.c: main\_instcmd(): set\_reload\_flag() by SIGCMD\_\* macros, not numbers [#1903, #1914]
- drivers/main.c: add socket-protocol handling for "driver.reload-or-error" INSTCMD [#1903, #1914]

## 2.506 2023-04-21 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/main.c: main(): register "driver.reload(-or-exit)" commands so upsd would accept them and upscmd can request them [#1903]
  - drivers/dstate.c: sock\_arg(): if shared main\_instcmd()/main\_setvar() did recognize and somehow process the request, honour TRACKING if present [#1903, #1920]
  - drivers/main.c: un-hide nut\_debug\_level\_args for mock-driver builds aka DRIVERS\_MAIN\_WITHOUT\_MAIN now that it is referenced in main\_setvar()⇒assign\_debug\_level() [#1903, #1285]
  - server/pipedebbug.c: seems WIN32 needs fflush(stdout)
  - docs/socket-protocol.txt: clarify use of sockdebug in WIN32 builds
  - common/common.c: vupslog(): only print timestamps to stderr if xbit\_test(upslog\_flags, UPSLOG\_STDERR) at all, not just that the debug is enabled; also mark upslog\_start when we first call the method, even if debu is not currently verbose (may change at run time) [#1903]
  - common/common.c: vupslog(), nut\_report\_config\_flags(): seems WIN32 needs fflush(stderr)
  - drivers/dstate.c: sock\_arg() (NO)BROADCAST handling ⇒ POSIX/WIN32 preparation of string: satisfy platforms where snprintf is a macro [#1914]
  - drivers/main.c: main\_instcmd()/main\_setvar() POSIX/WIN32 preparation of string: satisfy platforms where snprintf is a macro [#1914]
  - drivers/main.c: un-hide assign\_debug\_level() for mock-driver builds aka DRIVERS\_MAIN\_WITHOUT\_MAIN now that it is referenced in main\_setvar() [#1903, #1285]
  - drivers/main.c: set\_reload\_flag (and SIGUSR1) are currently only for non-WIN32 builds [#1903, #1916]
-

- server/pipedebbug.c: whitespace fixes (indentations et al)
- server/sockdebug.c, server/pipedebbug.c: support -h/--help on CLI
- docs/sock-protocol.txt: suggest also server/sockdebug for dev/testing
- server/sockdebug.c: check return of fgets()
- server/sockdebug.c: #include "nut\_stdint.h" for PRI\* macros

## 2.507 2023-04-20 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/main.c: driver/main.c: main\_instcmd() with basic "driver.reload" and "driver.reload-or-exit" support [#1903, #1914]
- drivers/dstate.c, drivers/dstate.h, drivers/main.c, drivers/main.h: driver/(mainldstate).(c|h): extend main\_instcmd()/main\_setvar() with knowledge of conn\_t involved [#1914]
- NEWS, docs/nut.dict, docs/sock-protocol.txt, drivers/dstate.c, drivers/dstate.h: docs/sock-protocol.txt, drivers/dstate.{c,h}: extend driver-server socket protocol with (NO)BROADCAST option [#1914]
- docs/man/nutupsdrv.txt, docs/man/upsdrvctl.txt, docs/man/upsmon.txt, docs/man/upssched.txt: docs: update about NUT\_\*PATH envvars support
- docs/man/upssched.txt: mention UPSNAME and NOTIFYTYPE among supported envvars
- clients/upssched.c: comment how checkconf() is the processing loop
- clients/upssched.c: debugging does not impact backgrounding (update help text)
- NEWS, clients/upsmon.c, clients/upssched.c, docs/man/nutupsdrv.txt, docs/man/upsd.txt, docs/man/upsdrvctl.txt, docs/man/upsmon.txt, docs/man/upssched.txt, drivers/main.c, drivers/upsdrvctl.c, server/upsd.c: upsd, upsdrvctl, drivers, upsmon, upssched progs and docs, NEWS: introduce NUT\_DEBUG\_LEVEL envvar support (if no "-D" option(s) among CLI args) [#1915] Closes: #1915
- NEWS, docs/man/ups.conf.txt, drivers/main.c: drivers/main.c, NEWS: constrain INSTCMD "driver.killpower" by "driver.flag.allow\_k setting [#1917] Closes: #1917
- drivers/dstate.c: if main\_setvar()/main\_instcmd() return STAT\_\*\_INVALID, do not proceed to driver handler [#1914]
- NEWS, drivers/main.c: drivers/main.c: add support for INSTCMD "driver.killpower" [#1917]
- NEWS, drivers/main.c: drivers/main.c: introduce a way to show and set "driver.debug" level via socket protocol (upsrw etc.) [#1285] Closes: #1285
- drivers/main.c: debug-trace (and so use) args to main\_instcmd() and main\_setvar() handlers [#1285, #1914]
- drivers/dstate.c, drivers/main.c, drivers/main.h: drivers/main.{c,h}, drivers/dstate.c: introduce and handle shared main\_instcmd() and main\_setvar() handlers [#1285, #1914]
- docs/sock-protocol.txt: update with some clarifications
- tests/NIT/nit.sh: report test case names at start of their methods, to find error reports in log more easily

## 2.508 2023-04-20 Clappier Eric <ericclappier@eaton.com>

- drivers/snmp-ups.c: Acquisition failed with daisychain epdu G3 with sensors (#1911) \* Hot fix for infinite loop during discovery daisychain epdu G3 with sensors \* Change log message in guesstimate\_template\_count function

**2.509 2023-04-19 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/upsdrvctl.c: buildability for WIN32 (unused code warnings) [#1903]
  - drivers/upsdrvctl.c: fix main loop buildability for WIN32 [#1903]
  - drivers/upsdrvctl.c: set\_signal\_flag(): relax const-ness to save the signal
  - drivers/upsdrvctl.c: fix builds for WIN32 [#1903]
  - NEWS: clarify nut-driver-enumerator vs. debug\_min edits [#1903]
  - scripts/systemd/nut-driver@.service.in: exec upsdrvctl to avoid another extra fork
  - scripts/Solaris/nut-driver.xml.in: fix refresh to send SIGUSR1 now [#1903]
  - scripts/upsdrvsvctl/nut-driver-enumerator.sh.in: use systemd ExecReload for drivers now [#1903]
  - scripts/systemd/nut-driver@.service.in: fix ExecReload to send SIGUSR1 now [#1903]
  - configure.ac: set SYSTEMD\_DAEMON\_ARGS\_DRIVER="-FF" to avoid excess forking (thanks to [#1903])
  - drivers/main.c: fix WIN32 buildability
  - drivers/upsdrvctl.c: help() exits here, so leave just fatalx() with diagnosis
  - drivers/upsdrvctl.c: avoid name shadowing after including main.h (for [#1903])
  - drivers/main.c: main(): rectify handling of "foreground" variants, fix a typo [#1903]
  - NEWS, docs/nut.dict: NEWS: update for signal support with drivers and upsdrvctl [#1903]
  - drivers/upsdrvctl.c: recycle drivers that aborted due to SIGCMD\_RELOAD\_OR\_EXIT [#1903]
  - drivers/main.c: reload-or-exit: exit with 128\+SIGNUM on POSIX systems [#1903]
  - drivers/upsdrvctl.c: actually forward supported signals accumulated by a running upsdrvctl [#1903]
  - drivers/upsdrvctl.c: refactor reset\_signal\_flag() [#1903]
  - docs/man/upsdrvctl.txt: update for new signal-sending support [#1903]
  - drivers/main.c: handle\_reload\_flag(): log for which device (help mass-mgmt via upsdrvctl) [#1903]
  - drivers/upsdrvctl.c: error out for dangling CLI arguments
  - drivers/upsdrvctl.c: implement signal handling and "-c COMMAND" to pass on to drivers [#1903]
  - drivers/main.c, drivers/main.h: drivers/main.{c,h}: move SIGCMD\_\* definitions to header for re-use [#1903]
  - server/upsd.c, clients/upsmon.c: optargs: check other command options only if we did not have a hit earlier
  - drivers/main.c: do not need a "port=. . ." to handle a command/signal option (with -s TMPUPSNAME) [#1903]
  - drivers/main.c: optargs: only accept command/signal option once [#1903]
  - drivers/main.c: optargs: check other command options only if we did not have a hit earlier [#1903] In particular, avoid finding "reload" again in longer command names
  - drivers/main.c: set\_reload\_flag(), optargs: log the command signal posted/received [#1903]
  - drivers/main.c: set\_reload\_flag(): rearrange comments and log messages [#1903]
  - docs/man/upsdrvctl.txt, drivers/upsdrvctl.c: drivers/upsdrvctl.c: add "-FF" mode to match driver abilities [#1299]
  - docs/man/nutupsdrv.txt, drivers/main.c: drivers/main.c: refactor "background\_flag" ⇒ "foreground" and add "-FF" mode to match upsd/upsmon [#1299]
-

- docs/man/nutupsdrv.txt, drivers/main.c: drivers/main.c: add support for command-line "reload", "reload-or-exit" (reserved "reload-or-restart" not implemented/offered yet), and -P OLDPID options [#1903]
- drivers/main.c: use macros to define SIGCMD\_DATA\_DUMP (moved from SIGUSR2 to SIGURG/SIGWINCH by default), SIGCMD\_RELOAD, SIGCMD\_RELOAD\_OR\_EXIT (and clarify difference from reserved SIGCMD\_RELOAD\_OR\_RESTART) [#1903]
- drivers/main.c: rename temporary "buffer" to "pidfnbuf" for a bit of readability
- server/conf.c: parse\_upsd\_conf\_args(): only warn about ignoring STATEPATH in favor of NUT\_STATEPATH if the two strings are not equal [#1908]

## 2.510 2023-04-18 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/main.c: hide nut\_debug\_level\_args as for DRIVERS\_MAIN\_WITHOUT\_MAIN [#1903]
- docs/man/generic\_gpio.txt: do not suggest non-standard "description", use "desc" instead [#1892]
- drivers/generic\_gpio\_common.c, drivers/generic\_gpio\_libgpiod.c: fix "upsdebugx(LOG\_DEBUG,...)" calls We debug with somewhat arbitrarily assigned verbosity numbers. The LOG\_\* definitions are from syslog (and equivalents for WIN32 event log).
- drivers/main.c: log that a VAR\_SENSITIVE value is not saved (and comment that override/default bypasses this) [#1892]
- drivers/generic\_gpio\_common.c, tests/generic\_gpio\_utest.c: mfr/model vars are not "sensitive" and "desc(ription)" are not handled via addvar() at all [#1892]
- drivers/main.c, NEWS: support SIGUSR2 to immediately dstate\_dump() and move on [#1907]
- server/conf.c: parse\_upsd\_conf\_args(): prefer NUT\_STATEPATH envvar to STATEPATH from file [#1908]
- server/upsd.c: trace-log the statepath actually used [#1908]
- server/sstate.c: sstate\_connect(): trace-log the paths involved if failed to connect() to a driver pipe [#1908]
- drivers/main.c: testvar\_reloadable(): fix logic botched by refactoring [#1903]
- drivers/main.c: test\*\_reloadable(): trace-log the verdict in all cases [#1903]
- drivers/main.c: move reload\_flag support in main loop to be more reactive and refactor as handle\_reload\_flag() [#1903]
- drivers/main.c: refactor reload\_flag support for existing flags (log that skipped) [#1903]
- drivers/main.c: support SIGUSR1 ⇒ reload\_flag=2 ⇒ driver may exit() if changed configs that can not be applied on the fly [#1903]
- drivers/main.c: cover assign\_debug\_level() under DRIVERS\_MAIN\_WITHOUT\_MAIN [#1903]
- common/common.c: #if ⇒ #ifdef\+if [#1903]

## 2.511 2023-04-17 Jim Klimov <jimklimov+nut@gmail.com>

- configure.ac: AM\_COND\_IF macro supported since aclocal-1.11; fall back to raw vars for older tools
  - scripts/Solaris/nut-driver.xml.in: define basic SMF "refresh" support to send SIGHUP to a driver [#1903]
  - NEWS: Implemented basic support for ups.conf reloading in NUT drivers [#1903]
  - configure.ac: do fail checks due to unknown tokens with SYSTEMD\_ANALYZE\_PROGRAM [#1903, #1590]
  - configure.ac: do not make noise with SYSTEMD\_ANALYZE\_PROGRAM [#1903, #1590]
  - configure.ac: fix "end-user" square brackets for M4 markup [#1903]
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- configure.ac: for common.c::upsnotify(): detect actual support for systemd Type=notify for good measure [#1903, #1590]
- configure.ac: for common.c::upsnotify(): detect support for systemd Type=notify-reload and enable it for nut-driver@.service if applicable [#1903]
- configure.ac: for common.c::upsnotify(): detect support for HAVE\_CLOCK\_GETTIME and HAVE\_CLOCK\_MONOTONIC [#1903]
- common/common.c: upsnotify(): support posting MONOTONIC\_USEC when RELOADING/READY [#1903]
- scripts/systemd/nut-driver@.service.in: typo fix in comment
- scripts/systemd/nut-driver@.service.in: support ExecReload via "kill -SIGHUP" [#1903]
- drivers/main.c: assign\_debug\_level(): update messages and comments, report if nut\_debug\_level\_args overrides smaller/unset nut\_debug\_level\_upsconf
- drivers/main.c: fix do\_global\_args() and main\_arg() to not ignore unmodified settings during reload [#1903]
- drivers/main.c: actually read\_upsconf() to handle reload (SIGHUP) [#1903]
- drivers/main.c: always setup\_signals() if we are not a one-shot run (fore- or back-ground)
- drivers/main.c: upsdebugx() raising the flags due to signals (exit, reload) [#1903]
- drivers/main.c: do\_upsconf\_args(): fix handling of "driver" value [#1903]
- drivers/main.c: pepper test\*\_reloadable() and do\_upsconf\_args() with upsdebugx() [#1903]
- drivers/main.c: testvar\_reloadable(): handle known flags conservatively [#1903]
- drivers/main.c: introduce (and honour) nut\_debug\_level\_args [#1903]
- drivers/main.c: refactor assign\_debug\_level()
- drivers/main.c: do\_global\_args(), main\_arg(): respect reload\_flag [#1903]
- drivers/main.c: move pollinterval handling from do\_upsconf\_args() to main\_arg()
- drivers/main.c: testvar\_reloadable(), testval\_reloadable(): clarify if the driver must be restarted to apply a value change [#1903]
- drivers/main.c, drivers/main.h: drivers/main.{c,h}: make testvar\_reloadable(), testval\_reloadable(), testinfo\_reloadable() a public API in case drivers would need to know [#1903]
- drivers/main.c: add skeleton handling for reload\_flag [#1903]
- drivers/main.c, drivers/main.h: driver/main.{c,h}: extend internal API with addvar\_reloadable() and vartab\_t→reloadable field [#1903]

## 2.512 2023-04-12 Jim Klimov <jimklimov@gmail.com>

- scripts/usb\_resetter/README.md: Update README.md Some more formatting/wording fixes
- scripts/usb\_resetter/README.md: Update README.md Reformatted line widths and code examples, incorporated PR discussion notes

## 2.513 2023-04-04 Jim Klimov <jimklimov@gmail.com>

- drivers/salicro-hid.c: Update salicro-hid.c Whitespace and alphabetic fixes, subdriver version bump
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**2.514 2023-04-04 David Martinez <[dmartinez.martin@atsistemas.com](mailto:dmartinez.martin@atsistemas.com)>**

- data/driver.list.in, drivers/salicru-hid.c, scripts/upower/95-upower-hid.hwdb: feat: Added support for Salicru SPS 3000 ADV RT2

**2.515 2023-04-01 Jim Klimov <[jimklimov@gmail.com](mailto:jimklimov@gmail.com)>**

- docs/nut.dict: adapt to newer website preparations

**2.516 2023-04-01 Jim Klimov <[jimklimov+nut@gmail.com](mailto:jimklimov+nut@gmail.com)>**

- drivers/nutdrv\_qx\_voltronic.c: cover another path to "battery.voltage" with qx\_multiply\_battvolt()

**2.517 2023-03-31 Orsiris de Jong <[ozy@netpower.fr](mailto:ozy@netpower.fr)>**

- scripts/usb\_resetter/README.md: usb\_resetter: add --list-hubs command example
- docs/FAQ.txt: Add driver disconnected usb\_resetter entry
- scripts/usb\_resetter/nut-driver.service: Add usb\_resetter enabled nut-driver systemd service
- scripts/usb\_resetter/README.md: Add usb\_resetter instructions

**2.518 2023-03-31 Jim Klimov <[jimklimov@gmail.com](mailto:jimklimov@gmail.com)>**

- NEWS: integration with usb\_resetter documented [[#1887](#)]
- docs/nut.dict: Update nut.dict

**2.519 2023-03-31 Jim Klimov <[jimklimov+nut@gmail.com](mailto:jimklimov+nut@gmail.com)>**

- drivers/nutdrv\_qx.c: should we not use correct battery\_voltage\_reports\_one\_pack\_considered every loop?
  - Makefile.am: MAINTAINERCLEANFILES+=ar-lib
  - common/common.c: background(): use STDIN\_FILENO/STDOUT\_FILENO/STDERR\_FILENO macros instead of hard-coded FD 0-1-2 numbers [[#1879](#), [#1881](#)] Closes: [#1879](#) Closes: [#1881](#)
  - include/common.h: define STDIN\_FILENO/STDOUT\_FILENO/STDERR\_FILENO if absent on the platform
  - configure.ac: detect support of dup() and/or dup2() on the platform
  - .gitignore: GitIgnore ar-lib tool, if added by automake (see AM\_PROG\_AR in configure.ac)
  - configure.ac: use m4\_ifdef for optional AM\_SILENT\_RULES support
  - configure.ac: use AM\_PROG\_AR if available (quiesce autoreconf portability warning) Inspired by <https://github.com/vlm/-asn1c/pull/63/files>
  - autogen.sh: add "-v" or "export (CI\_)DEBUG=true" support
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**2.520 2023-03-30 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac: test C\+\+11 nuances that NUT uses and which fail with older gcc-4.x with intermediate levels of support
- configure.ac: typo fix for "have\_cxx11=no," verdict
- clients/nutclient.cpp, clients/nutclient.h: clients/nutclient.h: declare NutException&Co destructors as "noexcept" to match some system headers std::except
- autogen.sh: suggest what to do in case of m4 "ifdef" errors
- docs/config-prereqs.txt: typo and markup fixes
- docs/ci-farm-lxc-setup.txt: split container installation and setup into visible sub-chapters
- docs/ci-farm-lxc-setup.txt, docs/nut.dict: docs/ci-farm-lxc-setup.txt: clarify use of expired keys for ancient Debian releases

**2.521 2023-03-23 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS, drivers/baytech-mib.c: drivers/baytech-mib.c: update baytech\_outlet\_status\_info[] valid values [#1871]

**2.522 2023-03-22 Evgeny Klimov <jimklimov+nut@gmail.com>**

- drivers/upsdrvctl.c: avoid another warning (WIN32 builds)

**2.523 2023-03-21 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/upsdrvctl.c: fix build warnings
- drivers/upsdrvctl.c: only check for child process PIDs on POSIX platforms
- drivers/upsdrvctl.c: track if any of launched foreground-mode drivers exited, and then abort the whole bundle (so it can be consistently restarted)
- drivers/upsdrvctl.c: fix some WIN32 code style
- drivers/upsdrvctl.c: track started foregrounded driver PID(s) to stop when exiting on signal
- drivers/upsdrvctl.c: fix logged message markup and TODO comments for foregrounded mode
- docs/man/upsdrvctl.txt, NEWS: update info about upsdrvctl foregrounding mode support
- drivers/upsdrvctl.c: update logged messages about foregrounding mode
- drivers/upsdrvctl.c: do not exit the tool if foregrounding was requested
- drivers/upsdrvctl.c: log when the tool is exiting
- drivers/upsdrvctl.c: count the UPSes we would command; foregrounding behavior depends on that number
- drivers/upsdrvctl.c: complete the fix for upsdrvctl explicit fore-/back-grounding mode [#1806 follow-up]
- tests/NIT/nit.sh: double-quote the driverpath value so it is properly parsed

**2.524 2023-03-14 Jim Klimov <jimklimov@gmail.com>**

- docs/nut.dict: fixup! NEWS: libdummy\_mockdrv.la added [#1855]
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**2.525 2023-03-13 Jim Klimov <jimklimov@gmail.com>**

- tests/Makefile.am: simplify recipe for gpiotest
- NEWS: libdummy\_mockdrv.la added [#1855]
- drivers/generic\_gpio\_common.c, drivers/generic\_gpio\_common.h, tests/Makefile.am, tests/generic\_gpio\_ustest.c: tests/generic\_gpio\_ustest.c: tests/Makefile.am: avoid "include generic\_gpio\_common.c generic\_gpio\_liblocal.c generic\_gpio\_libgpiod.c" in test code
- tests/generic\_gpio\_ustest.c, tests/Makefile.am: avoid sourcing "main.c" and "dstate.c" right into test code
- drivers/Makefile.am, drivers/main.c, drivers/main.h: drivers/main.{c,h} drivers/Makefile.am: introduce libdummy\_mockdrv.la (and DRIVERS\_MAIN\_WITHOUT\_MAIN)
- tests/generic\_gpio\_ustest.c, tests/Makefile.am: EXTRA\_DIST and use for out-of-tree builds the generic\_gpio\_test.txt resource file
- tests/Makefile.am: refer to "tests/" as include-dir for gpiotest
- tests/generic\_gpio\_ustest.c: add a declaration of ignore() to override the original main() from included main.c
- drivers/dstate.c: sock\_fail(): rename "struct passwd \*user" to avoid clash with global varname in main.c (due to tests/generic\_gpio\_ustest.c construction)
- drivers/generic\_gpio\_common.h, tests/generic\_gpio\_liblocal.c, tests/generic\_gpio\_ustest.c: Define NUT\_GPIO\_SUBTYPEBUF and NUT\_GPIO\_CHIPNAMEBUF for consistency, avoid local/global varname clashes for chipName
- drivers/generic\_gpio\_libgpiod.c: rename "num\_lines" to avoid global varname clash (in tests)
- tests/Makefile.am, tests/generic\_gpio\_liblocal.c, tests/generic\_gpio\_ustest.c, tests/generic\_gpio\_ustest.h: Introduce tests/generic\_gpio\_ustest.h
- tests/Makefile.am: drivers/Makefile.am: relocate "endif" lines so sources of tests are always redistributed
- drivers/generic\_gpio\_libgpiod.c: rename "(gpio)upsfd" method arguments to avoid shadowing global varnames
- drivers/generic\_gpio\_common.c: rename "(gpio)upsfd" method arguments to avoid shadowing global varnames
- drivers/generic\_gpio\_common.c, drivers/generic\_gpio\_common.h, drivers/generic\_gpio\_libgpiod.h: drivers/generic\_gpio\*.h: move "extern struct gpiousps\_t \*gpiouspsfd" to generic\_gpio\_common.h
- tests/.gitignore: GitIgnore tests/gpiotest\* artifacts

**2.526 2023-03-13 Jim Klimov <jimklimov+nut@gmail.com>**

- tests/Makefile.am: clean away symlinked gpiotest sources
- tests/Makefile.am, tests/.gitignore: refer to generic\_gpio\_libgpiod.c/generic\_gpio\_common.c differently for portability
- tests/Makefile.am: relocate "endif" lines back, with a different way for sources of tests are always redistributed
- drivers/libusb0.c, drivers/libusb1.c: drivers/libusb{0,1}.c: suggest Zadig tool to handle UPS with WinUSB (for WIN32 builds)

**2.527 2023-03-11 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac: do not require --with-gpio=yes for builds --with-all even on Linux: only the newer distros support the tech
  - NEWS, UPGRADING, docs/configure.txt: clarify that libgpiod is for Linux released after ~2018
  - docs/config-prereqs.txt: add installation of (lib)gpio(d)-dev(el) where feasible
  - docs/configure.txt: update prereq note for GPIO drivers
  - configure.ac, m4/nut\_check\_libgpiod.m4: fix actual --with-gpio handling
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- drivers/Makefile.am: add generic\_gpio\*.h to dist\_noinst\_HEADERS
- configure.ac: relocate all "NUT\_ARG\_WITH(build and install GPIO driver)" to other drivers, so they are nearby in configure --help
- m4/nut\_check\_pkgconfig.m4: fix AS\_HELP\_STRING (program name; not optional)
- configure.ac: relocate all "NUT\_ARG\_WITH(build and install ... driver)" together, so they are nearby in configure --help
- NEWS, UPGRADING, docs/configure.txt, docs/packager-guide.txt: mention new category of GPIO drivers
- configure.ac: currently --with-gpio defaults are platform-dependent

#### **2.528 2023-03-07 modrisb <modrisb@apollo.lv>**

- drivers/generic\_gpio\_libgpiod.c: fixed debug print in common
- tests/Makefile.am, tests/generic\_gpio\_liblocal.c, tests/generic\_gpio\_test.txt, tests/generic\_gpio\_ustest.c: added tests for gpio
- drivers/generic\_gpio\_libgpiod.c: libgpiod formatting
- drivers/generic\_gpio\_libgpiod.c, m4/nut\_check\_libgpiod.m4: adding 2 missed commits

#### **2.529 2023-03-07 Jim Klimov <jimklimov+nut@gmail.com>**

- ci\_build.sh: add rudimentary support for "./ci\_build.sh spellcheck-interactive"
- docs/developers.txt, docs/nut.dict: docs/developers.txt: add a chapter on IDEs

#### **2.530 2023-03-06 modrisb <modrisb@apollo.lv>**

- drivers/generic\_gpio\_common.c: 2n round of refactoring after test

#### **2.531 2023-03-06 Jim Klimov <jimklimov@gmail.com>**

- tools/nut-scanner/scan\_xml\_http.c: Update scan\_xml\_http.c

#### **2.532 2023-03-06 Jim Klimov <jimklimov+nut@gmail.com>**

- tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_usb.c, tools/nut-scanner/scan\_xml\_http.c: nut-scanner: reformat "Cannot load ... library" reports, fix varname for libneon

#### **2.533 2023-03-05 modrisb <modrisb@apollo.lv>**

- drivers/generic\_gpio\_common.c: fixes after extensive rules& states calc tests

#### **2.534 2023-03-05 Jim Klimov <jimklimov@gmail.com>**

- drivers/libusb1.c: Update libusb1.c Change to conventional error-message format
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**2.535 2023-03-05 Jim Klimov <jimklimov+nut@gmail.com>**

- common/common.c: become\_user(): "pw" is not NUT\_UNUSED\_VARIABLE() anymore
- drivers/libusb1.c: report text of libusb\_error when libusb\_kernel\_driver\_active() fails
- ci\_build.sh: try to ensure a TMPDIR

**2.536 2023-03-04 Jim Klimov <jimklimov+nut@gmail.com>**

- common/common.c: become\_user(): fix behavior with NULL arg
- tools/nut-scanner/nutscan-init.c: pepper with upsdebugx(1,...) to track overview progress of library loading (or not)
- tools/nut-scanner/nutscan-init.c: first search for contemporary libupsclient DLL on Windows
- tools/nut-scanner/nutscan-init.c: fix searching for libneon and libnetsnmp on Windows
- common/common.c: fix checking for DLLs in "../lib" relative to EXE location
- common/common.c: be sure to check for DLLs in EXE location (even if it is not "." workdir)
- drivers/main.c: use common nut\_report\_config\_flags() to debug-log details of the driver build
- common/common.c: reword stderr printout as upsdebugx(1,...) pattern
- common/common.c: externalize (and rename) struct timeval upslog\_start so other methods can use the same accounting

**2.537 2023-03-02 modrisb <modrisb@apollo.lv>**

- drivers/generic\_gpio\_common.c, drivers/generic\_gpio\_libgpiod.c: removed test code and finalized styling

**2.538 2023-03-01 modrisb <modrisb@apollo.lv>**

- drivers/generic\_gpio\_libgpiod.c: removed define for debug

**2.539 2023-03-01 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/scheduling.txt: align example timeouts in different paragraphs
  - configure.ac: extend search for RUN\_AS\_USER in upsmon.conf [#1859]
  - configure.ac: reshuffle for --enable-inplace-runtime=reenter support; detect sysconfdir/user/group in one place where we care for "inplace" mode [#1859]
  - configure.ac: fix re-entry of the script when handling --enable-inplace-runtime [#1859]
  - configure.ac: comment that in some systems, the upsd in PATH is a shell wrapper [#1859] e.g. in Debian packaging where it is tied into "MODE" of nut.conf
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**2.540 2023-02-28 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/developers.txt: update coding style guide about braces after if/while/for/... even for a single line
- clients/upssched.c: parse\_at(): add upsdebugx() tracing [#1858]
- clients/upsc.c, clients/upscmd.c, clients/upslog.c, clients/upsmon.c, clients/upsrw.c, server/upsd.c, tools/nut-scanner/nut-scanner.c: Fix help()/usage() in many programs to suggest "-h" and/or "-V" options
- clients/upssched.c: enable command-line argument handling [#1863] Closes: #1863
- clients/upssched.c: Revert "clients/upssched.c: main(): find use for argc" This reverts commit dca2315fa8fb9a80528726cbc235310f19 Not needed anymore, and actually added a bug (prog not remembered).
- m4/ax\_realpath.m4: comment about recursion involved [#1859]
- configure.ac: disable UNITTEST\_AX\_REALPATH and the exit afterwards [#1859]
- m4/ax\_realpath.m4: AX\_REALPATH(): quote reported pathnames consistently [#1859]
- m4/ax\_realpath.m4: AX\_REALPATH(): report if resolved pathname differs from input value [#1859]
- m4/ax\_realpath.m4: AX\_REALPATH(): try AX\_REALPATH\_SHELL\_RECURSIVE even if file is not found initially; fix how we decide it is not found [#1859]
- m4/ax\_realpath.m4: AX\_REALPATH\_SHELL\_RECURSIVE() AX\_REALPATH\_SHELL\_ONELEVEL(): drop support for LVL (shell vars misbehave here so not interesting) [#1859]
- m4/ax\_realpath.m4: split AX\_REALPATH\_SHELL\_RECURSIVE() into a loop and its called method [#1859]
- m4/ax\_realpath.m4: UNITTEST\_AX\_REALPATH(): relocate shell logic into AX\_REALPATH\_SHELL\_RECURSIVE() [#1859]
- m4/ax\_realpath.m4: UNITTEST\_AX\_REALPATH(): reword a test description [#1859]
- m4/ax\_realpath.m4: UNITTEST\_AX\_REALPATH(): avoid using /tmp directly if possible [#1859]
- m4/ax\_realpath.m4: format messages in UNITTEST\_AX\_REALPATH() and UNITTEST\_AX\_REALPATH\_EXPECT() in a friendlier fashion [#1859]
- m4/ax\_realpath.m4: refactor UNITTEST\_AX\_REALPATH() with UNITTEST\_AX\_REALPATH\_EXPECT() helper [#1859]
- configure.ac: TEMPORARY: add call to UNITTEST\_AX\_REALPATH and exit after it [#1859]
- m4/ax\_realpath.m4: introduce UNITTEST\_AX\_REALPATH [#1859]

**2.541 2023-02-27 modrisb <modrisb@apollo.lv>**

- m4/nut\_check\_libgpod.m4: naming change for PKG\_CONFIG - dev version
- configure.ac, drivers/Makefile.am, m4/nut\_check\_libgpod.m4: added m4 file for driver

**2.542 2023-02-27 Jim Klimov <jimklimov@gmail.com>**

- docs/nut.dict: Update docs/nut.dict

**2.543 2023-02-27 Jim Klimov <jimklimov+nut@gmail.com>**

- m4/ax\_realpath.m4: add some error-checking for unresolved paths [#1859]
  - configure.ac, m4/ax\_realpath.m4: configure.ac: refactor realpath\_m4() into m4/ax\_realpath.m4 [#1859]
  - configure.ac: introduce realpath\_m4() [#1859]
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**2.544 2023-02-26 modrisb <modrisb@apollo.lv>**

- docs/man/Makefile.am, docs/man/{gpio.txt ⇒ generic\_gpio.txt}, drivers/Makefile.am, drivers/generic\_gpio\_common.c, drivers/generic\_gpio\_common.h, drivers/generic\_gpio\_libgpod.c, drivers/generic\_gpio\_libgpod.h: PR review #1 (no m4)

**2.545 2023-02-26 Jim Klimov <jimklimov@gmail.com>**

- INSTALL.nut: update instructions for parallel make all \+ check

**2.546 2023-02-25 modrisb <modrisb@apollo.lv>**

- docs/man/gpio.txt, drivers/Makefile.am, drivers/{gpio.c ⇒ generic\_gpio\_common.c}, drivers/{gpio.h ⇒ generic\_gpio\_common.h}, drivers/generic\_gpio\_libgpod.c, drivers/generic\_gpio\_libgpod.h: renamed source code files

**2.547 2023-02-23 modrisb <modrisb@apollo.lv>**

- drivers/gpio.c, drivers/gpio.h: refactored to better split generic code from gpio library specific code
- docs/man/gpio.txt, docs/nut.dict: man page spellcheck fixes

**2.548 2023-02-22 modrisb <modrisb@apollo.lv>**

- drivers/gpio.c: removed local test define
- docs/man/Makefile.am, docs/man/gpio.txt, drivers/gpio.c: PR preparation fixes
- drivers/gpio.h: .h updates
- docs/man/gpio.txt, drivers/gpio.c: preparing for PR
- docs/man/gpio.txt: added draft man page

**2.549 2023-02-22 Jim Klimov <jimklimov+nut@gmail.com>**

- common/common.c: nut\_report\_config\_flags(): avoid warnings about unreachable code
  - common/common.c: nut\_report\_config\_flags(): make it clear (and safe for in-place mode) when no CONFIG\_FLAGS were customized for a NUT build
  - m4/nut\_report\_feature.m4: fix NUT\_REPORT\_TARGET() for multi-token values of CC\_VERSION etc.
  - configure.ac: fixup! configure.ac: report CC\_VERSION (also into config.h)
  - m4/nut\_report\_feature.m4: fix printf() reporting of potentially "funny" strings
  - common/common.c: nut\_report\_config\_flags(): report CC\_VERSION if available
  - configure.ac: report CC\_VERSION (also into config.h)
  - configure.ac, m4/nut\_compiler\_family.m4: minimize executions of "CC --version" etc, make it LANG-agnostic, cache as CC\_VERSION etc.
  - common/common.c, configure.ac: configure.ac: actually, we should not forcefully export NUT\_SOURCE\_GITREV into config.h
  - common/common.c, configure.ac: configure.ac, common/common.c nut\_report\_config\_flags(): track and report NUT\_SOURCE\_GIT if available (even where nut\_version.h imposes strict version)
-

**2.550 2023-02-20 modrisb <modrisb@apollo.lv>**

- drivers/gpio.h: initial for GPIO(2)
- configure.ac, drivers/Makefile.am, drivers/gpio.c: initial for gpio driver support

**2.551 2023-02-13 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/main.c: options *-a id* and *-s id* are mutually exclusive and single-use only
- configure.ac: --enable-inplace-runtime should not disregard sysconfdir which the build user may not read

**2.552 2023-02-12 Jon Gilmore <jon@gilmore.cloud>**

- drivers/tripplite-hid.c, scripts/upower/95-upower-hid.hwdb: add support for minuteman device a0a0

**2.553 2023-02-12 Jim Klimov <jimklimov@gmail.com>**

- drivers/tripplite-hid.c: Update tripplite-hid.c Update subdriver version along with content bump

**2.554 2023-02-11 Yifeng Li <tomli@tomli.me>**

- drivers/huawei-ups2000.c: huawei-ups2000: fix broken timeout recovery behavior in Issue [#1846](#). Occasionally, the UPS takes longer than 1 second to respond and finish transmitting a message. This causes a timeout in `modbus_read_registers()`, and the driver is supposed to retry the request and recover from the failure. Unfortunately, when the driver retries, instead of getting the result of the current request, the leftover bytes from the previous read is received from the serial buffer, creating invalid messages. It causes all following reads to also fail, often with an "Invalid CRC" error, and the driver can never recovery from the failure. This commit fixes the bug by flushing the buffer using function `modbus_flush()` before invoking `modbus_read_registers()`. The libmodbus timeout value is also bumped to 2 seconds to avoid unnecessary timeouts and subsequent retries. Finally, the version number is also bumped to reflect the existence of this fix.

**2.555 2023-02-07 Jim Klimov <jimklimov+nut@gmail.com>**

- INSTALL.nut: fix link to Config Prereqs in generated HTML version

**2.556 2023-02-05 Jim Klimov <jimklimov+nut@gmail.com>**

- INSTALL.nut, docs/nut.dict: INSTALL.nut: update with "in-place" rebuilds chapter [[#1826](#)]

**2.557 2023-02-03 Jim Klimov <jimklimov+nut@gmail.com>**

- .github/FUNDING.yml: Introduce .github/FUNDING.yml metadata

**2.558 2023-02-02 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/nut.dict: add OSC and opencollective

**2.559 2023-02-01 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac: rearrange progress message for "whether to build binaries with tighter systemd integration support"
  - configure.ac: quiesce python checks for modules
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**2.560 2023-01-28 Jim Klimov <jimklimov@gmail.com>**

- docs/man/riello\_usb.txt: Update riello\_usb.txt
- NEWS: Update NEWS
- docs/man/riello\_usb.txt: Update riello\_usb.txt

**2.561 2023-01-26 Jim Klimov <jimklimov+nut@gmail.com>**

- appveyor.yml: avoid redirect to /dev/null on Windows
- appveyor.yml: bolt ccache location to avoid wasting space on Appveyor for older vs newer layouts
- appveyor.yml: avoid amperesand in YAML
- ci\_build.sh: in the end, query ccache compression stats if supported
- appveyor.yml: stash another possible ccache location
- appveyor.yml: in the end, query ccache compression stats if supported
- appveyor.yml: set ccache config options
- tests/NIT/nit.sh: have a sense of time in the log\_\*() messages When tests fail on CI farm, this should help see timeouts due to farm under too much stress vs. "real" reasonable problems.
- ci\_build.sh: separate [build] and [check] failures (and successes) in BUILD\_TYPE=default-all-errors reports

**2.562 2023-01-24 Jim Klimov <jimklimov@gmail.com>**

- NEWS: bestfortress shutdown timeout fixed [#1820]

**2.563 2023-01-23 Jim Klimov <jimklimov+nut@gmail.com>**

- ci\_build.sh: suggest CI\_REQUIRE\_GOOD\_GITIGNORE="false" in error message
- ci\_build.sh: fix condition and shorten the printed lines for install-sh warning
- configure.ac: fix condition and shorten the printed lines for install-sh warning
- ci\_build.sh: try workarounds for old and broken install-sh [#1831]
- configure.ac: suggest workarounds for old and broken install-sh, visibly just before the end [#1831]

**2.564 2023-01-22 Jim Klimov <jimklimov@gmail.com>**

- drivers/bestfortress.c: Update bestfortress.c Fix prints of (s) size\_t variables
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**2.565 2023-01-22 Jim Klimov <jimklimov+nut@gmail.com>**

- tools/Makefile.am: give delivery of GENERATED\_USB\_OS\_FILES more chances to succeed
  - docs/Makefile.am, docs/man/Makefile.am, scripts/Solaris/Makefile.am: \*/Makefile.am: replace "mkdir -p" by MKDIR\_P autotools macro
  - tools/Makefile.am: do not fail (just warn) if any of GENERATED\_USB\_OS\_FILES are missing or empty [#1831]
  - autogen.sh: ensure that nut-usbinfo.pl runs if any of its products are missing, not just a few (and comment how to keep the list updated) [#1831]
  - tools/Makefile.am: streamline "rebuilt" of GENERATED\_USB\_OS\_FILES if needed [#1831] An alternative solution to #1832
  - tools/Makefile.am: comment GENERATED\_SNMP\_FILES\+GENERATED\_USB\_FILES vs. GENERATED\_USB\_OS\_FILES lifecycles [#1831]
  - scripts/augeas/Makefile.am: fix EXTRA\_DIST for nutupsconf.aug.in [#1831]
  - scripts/Makefile.am, tools/Makefile.am: scripts/Makefile.am: fix EXTRA\_DIST for upower/95-upower-hid.hwdb [#1831]
  - scripts/devd/Makefile.am: fix EXTRA\_DIST for nut-usb.conf.in [#1831]
  - scripts/udev/Makefile.am: fix EXTRA\_DIST for nut-usb.rules.in [#1831]
  - scripts/hotplug/Makefile.am: fix EXTRA\_DIST for libhid.usermap [#1831]
  - ci\_build.sh: help find end of NUT\_x\_VARIANT=. . . failed build (before cleanup noise) in CI logs
  - docs/config-prereqs.txt, docs/nut.dict: docs/config-prereqs.txt: suggest MKDIRPROG hack for installing on NetBSD [#1834]
  - configure.ac, m4/nut\_report\_feature.m4: move KEEP\_NUT\_REPORT definition to before AC\_OUTPUT [#1826]
  - UPGRADING: document --enable-keep\_nut\_report\_feature and that the file can be installed [#1826, #1708]
  - docs/configure.txt: debug-report of CONFIG\_FLAGS is now shorter
  - docs/configure.txt: document --enable-keep\_nut\_report\_feature and that the file can be installed [#1826]
  - configure.ac: NUT\_REPORT() the PACKAGE\_VERSION (and GITREV if any) valid at the time of configure run [#1826]
  - configure.ac: report GITREV (if any) valid at the time of configure run
  - m4/nut\_report\_feature.m4, Makefile.am: install config.nut\_report\_feature.log if kept [#1826]
  - m4/nut\_report\_feature.m4: standardize indentation, more M4 AS\_IFs [#1826]
  - drivers/richcomm\_usb.c, drivers/nutdrv\_atcl\_usb.c, drivers/bcmxcp\_usb.c: sync naming changes with drivers/libusb1.c [#1819, #1763, #1764]
  - drivers/libusb1.c: bump version for libusb\_get\_device\_address() vs. libusb\_get\_port\_number() [#1819]
  - tools/nut-scanner/scan\_usb.c: sync naming and method changes with drivers/libusb1.c [#1819]
  - drivers/libusb1.c: align device\_addr/devnum printing (back) with their int types [#1819]
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**2.566 2023-01-21 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac: fix systemd-tmpfiles detection from AC\_CHECK\_PROGS to AC\_PATH\_PROG for full pathname [#1822]
- configure.ac: set --prefix, --sbindir or --bindir into CONFIG\_FLAGS according to older binaries found (if not provided otherwise) [#1826, #1709]
- configure.ac: do not pollute "SBINDIR" variable with tests for nut\_enable\_inplace\_runtime, try PATH beside PREFIX, and generalize to try upsc if upsd is not found [#1826]
- configure.ac: typo fix for CONFIG\_FLAGS [#1826]
- configure.ac: report determining CONFIG\_FLAGS [#1709, #1826]
- configure.ac: track NUT\_VERSION\_DEPLOYED which we inherit from with --enable-inplace-runtime [#1826]
- configure.ac: update comments for systemd/nut-common-tmpfiles.conf.in
- common/common.c: refactor nut\_report\_config\_flags() to allow for longer option lists for purposes of "configure --enable-inplace-runtime" [#1826]
- clients/Makefile.am, tools/nut-scanner/Makefile.am: Refactor nut\_report\_config\_flags() from many programs into common.c [#1826, #1709] - bump libs version-info
- clients/upsc.c, clients/upscmd.c, clients/upslog.c, clients/upsmon.c, clients/upsrw.c, common/common.c, drivers/main.c, include/common.h, server/upsd.c, tools/nut-scanner/nut-scanner.c: Refactor nut\_report\_config\_flags() from many programs into common.c [#1826, #1709]
- configure.ac: do not track in CONFIG\_FLAGS that we --disable-runtime-support, and only track once that we --enable-runtime-support [#1826]
- lib/libupscclient-config.in: comment that NUT\_VERSION\_MACRO in binaries may differ from PACKAGE\_VERSION in the script [#1826]

**2.567 2023-01-20 Neil Romig <neilromig@gmail.com>**

- scripts/upsdrvsvctlnut-driver-enumerator.sh.in: Update nut-driver-enumerator.sh.in Remove backslash from grep expression at line 836 to avoid grep warning of stray backslash.

**2.568 2023-01-20 Greg Troxel <gdt@lexort.com>**

- drivers/bestfortress.c: bestfortress: Switch logging to *func* Add a few comments about needed future work, but no code changes. Adjust to (surprising to me) non-POSIX file descriptor types.

**2.569 2023-01-19 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac: prepare nut-common-tmpfiles.conf.in subdir for @STATEPATH@/upssched, and update comments

**2.570 2023-01-18 Jim Klimov <jimklimov+nut@gmail.com>**

- autogen.sh, configure.ac, docs/config-prereqs.txt: Bump commented suggestions to automake-1.13 or newer Follow-up to [#1821]
  - scripts/python/module/PyNUT.py.in: update for dual Py2/Py3 citizenship
-

- scripts/python/app/NUT-Monitor-py2gtk2.in, scripts/python/app/NUT-Monitor-py3qt5.in, scripts/python/module/PyNUT.py.in, scripts/python/module/README, scripts/python/module/test\_nutclient.py.in: scripts/python/\*: import definition and use-case of CheckUPSAvailable() from Fedora packaging patches Py2: <https://src.fedoraproject.org/rpms/nut/blob/3c9fea3a359db592e3c7d25f/nut-2.6.5-unreachable.patch> Py3: <https://src.fedoraproject.org/rpms/nut/blob/48685366900985696be8371d8deea6494ae36c43f/nut-2.6.5-unreachable.patch> by Michal Hlavinka
- configure.ac, scripts/systemd/nut-driver-enumerator.service.in, scripts/systemd/nut-driver@.service.in, scripts/systemd/nut-monitor.service.in, scripts/systemd/nut-server.service.in: scripts/systemd/\*.service.in: parameterize systemd-tmpfiles program location
- scripts/systemd/nut-driver-enumerator.service.in, scripts/systemd/nut-driver@.service.in, scripts/systemd/nut-monitor.service.in, scripts/systemd/nut-server.service.in: scripts/systemd/\*.service.in: ExecStartPre systemd-tmpfiles to facilitate install/upgrade with less fuss Inspired by Fedora Rawhide patches at <https://src.fedoraproject.org/rpms/nut/blob/0a29e563e374f274f801270bce8eaab9f/nut-2.6.3-tmpfiles.patch>
- ci\_build.sh: shuffle quotes in NUT\_\*\_VARIANT=. . . reports for easier search in logs
- ci\_build.sh: make maintainer-clean less noisy in CI if V=0 (automake clean.m4 echoes unconditionally)
- Makefile.am, clients/Makefile.am, common/Makefile.am, docs/Makefile.am, docs/man/Makefile.am, drivers/Makefile.am, include/Makefile.am, scripts/python/Makefile.am, server/Makefile.am, tests/Makefile.am, tests/NIT/Makefile.am, tools/nut-scanner/Makefile.am: use AM\_V\_at for optionally-quieter cleanup
- ci\_build.sh: for developer builds, disable silent rules to see all problems better
- ci\_build.sh: make cleanup less noisy
- ci\_build.sh: make verbose builds actually verbose
- configure.ac: default to automake-"silent" rules for builds

## 2.571 2023-01-17 Edgar Fuß <[ef@math.uni-bonn.de](mailto:ef@math.uni-bonn.de)>

- drivers/libusb1.c: Use libusb\_get\_device\_address(), not libusb\_get\_port\_number() In USB device enumeration, when setting curDevice→Device, use libusb\_get\_device\_address(), not libusb\_get\_port\_number(). While there, rename bus to bus\_num to avoid ambiguity. When printf()ing devnum (a size\_t), use %zd, which is POSIX, not PRIuSIZE, which is not.

## 2.572 2023-01-16 Jim Klimov <[jimklimov+nut@gmail.com](mailto:jimklimov+nut@gmail.com)>

- scripts/python/app/nut-monitor.appdata.xml: nut-monitor.appdata.xml: add launchable=nut-monitor.desktop Inspired by <https://salsa.debian/nut/-/blob/a009ca10a327d7db383f5d7726091050ceb4d60f/debian/patches/appdata-launchable.patch> from @bigon but adjusted for general version-agnostic dispatcher (py2 or py3, whatever is installed for this end-user deployment)
- tools/nut-scanner/scan\_nut.c: simplify check for "port" similar to scan\_avahi.c [#1815]
- tools/nut-scanner/scan\_avahi.c: comments similar to scan\_nut.c
- tests/NIT/nit.sh: verify that port number is suffixed by nut-scanner when needed [#1815]
- tools/nut-scanner/scan\_nut.c: comment about "nutclient" driver value
- tools/nut-scanner/scan\_nut.c: suffix non-standard port numbers to "port" in config [#1815]
- tools/nut-scanner/scan\_nut.c: use uint16\_t port to align with upsclient.c [#1815]
- tests/NIT/nit.sh: fix LD\_LIBRARY\_PATH for testcase\_sandbox\_nutscanner\_list()
- tests/NIT/nit.sh: simplify bail-out pattern for nut-scanner to match on more OSes
- configure.ac: CONFIG\_FLAGS: older ksh dislikes doublequotes inside backticks, all doublequoted outside ⇒ use \$(...)

**2.573 2023-01-15 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac: fix support for CONFIG\_FLAGS with spaces
- configure.ac: log the CLI options for restarted run when nut\_enable\_inplace\_runtime
- tests/NIT/nit.sh: testcase\_sandbox\_nutscanner\_list(): excuse lack of libupsclient.so/dll in path
- configure.ac, docs/configure.txt: configure.ac: consult CONFIG\_FLAGS\_DEPLOYED and CONFIG\_FLAGS when --enable-inplace-runtime mode is used
- drivers/main.c: report CONFIG\_FLAGS always when debugging [#1789]
- clients/upsc.c, clients/upscmd.c, clients/upslog.c, clients/upsmon.c, clients/upsrw.c, docs/configure.txt, drivers/main.c, server/upsd.c, tools/nut-scanner/nut-scanner.c: NUT programs should report CONFIG\_FLAGS for help/version requests with debug enabled  
Related-to: [#1789]
- configure.ac: lib/libupsclient-config is a SCRIPTFILE
- lib/libupsclient-config.in: report CONFIG\_FLAGS
- lib/libupsclient-config.in: double-quote shell expansions
- tools/nut-scanner/scan\_avahi.c: when bailing out of Avahi scan, do so comprehensibly for readers of error messages
- tests/NIT/nit.sh: add rudimentary nut-scanner tests
- tools/nut-scanner/nutscan-display.c: weave nutdevX numbering for different scan types when generating ups.conf with sanity-check warnings with a global var [#1810]

**2.574 2023-01-15 Greg Troxel <gdt@lexort.com>**

- drivers/bestfortress.c: driver/bestfortress: Fix serious shutdown bug and improve shutdown code - Move setting "ups.shutdown.delay" earlier so that it is available for upsdrcvtl shutdown. This results in using that delay, instead of 1s. - Change shutdown delay to 20s from 10s, because that seems more common, and 10s feels too tight. - Add logging about shutdown. When run with -k, ups.delay.shutdown has apparently not been initialized. Fall back to 20, rather than 1, and log better.
- drivers/bestfortress.c: drivers/bestfortress: Rationalize and improve debugging - Define a debug logging plan - Add debug log calls - Adjust several existing calls This commit does not intend to modify behavior other than logging.

**2.575 2023-01-14 Jim Klimov <jimklimov+nut@gmail.com>**

- tools/nut-scanner/nutscan-display.c: nutscan\_display\_sanity\_check\_serial(): fix failsafe condition [#1810]
- tools/nut-scanner/nutscan-display.c: nutscan\_display\_sanity\_check\_serial(): if not null, one device entry exists [#1810]
- tools/nut-scanner/nutscan-display.c: nutscan\_display\_sanity\_check\_serial(): trace progress through logic [#1810]
- tools/nut-scanner/nutscan-display.c: trace entry into the display methods [#1810]
- NEWS, UPGRADING, docs/man/Makefile.am, docs/man/nut-scanner.txt, docs/man/nutscan.txt, docs/man/nutscan\_add\_option\_to\_docs/man/nutscan\_cidr\_to\_ip.txt, docs/man/nutscan\_display\_parsable.txt, docs/man/nutscan\_display\_sanity\_check.txt, docs/man/nutscan\_display\_sanity\_check\_serial.txt, docs/man/nutscan\_display\_ups\_conf.txt, .../nutscan\_display\_ups\_conf\_with\_sanity\_docs/man/nutscan\_free\_device.txt, docs/man/nutscan\_get\_serial\_ports\_list.txt, docs/man/nutscan\_init.txt, docs/man/nutscan\_new\_dev\_docs/man/nutscan\_scan\_avahi.txt, docs/man/nutscan\_scan\_eaton\_serial.txt, docs/man/nutscan\_scan\_ipmi.txt, docs/man/nutscan\_scan\_docs/man/nutscan\_scan\_snmp.txt, docs/man/nutscan\_scan\_usb.txt, docs/man/nutscan\_scan\_xml\_http\_range.txt, tools/nut-scanner/nutscan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-display.c: nut-scanner: report bogus and duplicate serial numbers [#1810]
- NEWS, docs/config-prereqs.txt, docs/nut.dict: docs/config-prereqs.txt: document notes about a build for Solaris 8 [#1736, #1738]
- NEWS: mention instructions for CentOS 6 native NUT 2.8.x builds [#1804]

**2.576 2023-01-12 Jim Klimov <jimklimov+nut@gmail.com>**

- .editorconfig: Revert ".editorconfig: try to neuter additional IntelliJ IDEA formatter [#894]" This reverts commit f9b195a4650766ef81
- .editorconfig, AUTHORS, INSTALL.nut, NEWS, README, TODO, UPGRADING, docs/.editorconfig, docs/acknowledgements.txt, docs/cables/apc.txt, docs/cables/ge-imv-victron.txt, docs/cables/mgeups.txt, docs/cables/powerware.txt, docs/cables/repotec.txt, docs/config-prereqs.txt, docs/maintainer-guide.txt, docs/man/.editorconfig, docs/man/apcsmart.txt, docs/man/apcupscups.txt, docs/man/asem.txt, docs/man/bcmxcp.txt, docs/man/bcmxcp\_usb.txt, docs/man/belkinunv.txt, docs/man/bestfortress.txt, docs/man/blazer-common.txt, docs/man/blazer\_usb.txt, docs/man/generic\_modbus.txt, docs/man/liebert-esp2.txt, docs/man/macossx-ups.txt, docs/man/nut-ipmipsu.txt, docs/man/nut-scanner.txt, docs/man/nut\_usb\_addvars.txt, docs/man/nutdrv\_qx.txt, docs/man/nutdrv\_siemens\_sitop.txt, docs/man/powerman-pdu.txt, docs/man/socomec\_jbus.txt, docs/man/tripplite\_usb.txt, docs/man/ups.conf.txt, docs/man/upsclient.txt, docs/man/upslog.txt, docs/nut.dict, docs/snmp-subdrivers.txt, docs/solaris-usb.txt, scripts/RedHat/README, scripts/Windows/DriverInstaller/README.txt, scripts/Windows/README, scripts/augeas/README, scripts/devd/README, scripts/hotplug/README, scripts/python/README, scripts/systemd/README, scripts/udev/README, scripts/ufw/README, tests/NIT/README, tools/nut-scanner/README: Apply .editorconfig driven cleanup to docs [#894]
- docs/man/nut\_usb\_addvars.txt: update comment for allow\_duplicates [#1756]
- docs/man/nut\_usb\_addvars.txt: update comment for nut-scanner [#1790]
- .editorconfig: exempt itself from trailing whitespace (possibly needed for block-comment definitions) [#894]
- .editorconfig: try to neuter additional IntelliJ IDEA formatter [#894]
- docs/developers.txt, docs/nut.dict: docs/developers.txt: mention editorconfig [#894]
- .editorconfig: Elaborate on .editorconfig some more [#894]
- .editorconfig: Elaborate on .editorconfig [#894]
- .editorconfig: Introduce a basic .editorconfig file [#894]
- configure.ac: drop double-quotes from NUT\_REPORT\*() args [#1708]
- NEWS, docs/man/upsdrvctl.txt, drivers/upsdrvctl.c: drivers/upsdrvctl.c: add "-F"/"-B" args for drivers to be fore/back-grounded explicitly [#1759]
- drivers/upsdrvctl.c: whitespace fix in usage()
- docs/config-prereqs.txt: clarify lack of libusb-1.0 in CentOS 6
- autogen.sh: ensure quieter perl on system with invalid locale

**2.577 2023-01-11 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac, m4/ax\_check\_compile\_flag.m4: relax minimum autoconf to 2.63 (checked on CentOS6)
- docs/config-prereqs.txt, docs/nut.dict: docs/config-prereqs.txt: update for CentOS6
- scripts/systemd/nut-driver@.service.in, scripts/systemd/nut-monitor.service.in, scripts/systemd/nut-server.service.in: network-online.target dependency [#749]
- UPGRADING, docs/nut.dict: UPGRADING: clarify improvements for "duplicate" USB device handling in NUT 2.8.1 [#1763, #1766, #1756, #1790]
- drivers/libusb0.c, drivers/libusb1.c: drivers/libusb{0,1}.c: clarify expected/got byte amounts (fix typo) [#1797]
- configure.ac: evaluate pkgconfigdir into a real pathname Have an needs further evaluation
- configure.ac: report enabling SMF support (consistent vs. reporting systemd already) [#1708]
- configure.ac: report installation paths for optional third-party integrations [#1708, #1668]
- configure.ac: simplify reporting of Python site-packages location [#1787, #1708]

- configure.ac: rearrange Python interpreter and path reporting [#1787, #1708]
- m4/nut\_report\_feature.m4: introduce NUT\_REPORT\_PATH\_INTEGRATIONS and NUT\_REPORT\_SETTING\_PATH\_INTEGRATIONS chapter [#1708]
- m4/nut\_check\_python.m4: fix copy-paste typo in autoconf m4 markup [#1787]
- m4/nut\_check\_python.m4: use stricter conditions to check if PYTHONx values are invalid [#1787]
- drivers/apc-hid.c: comment 0xff86007c as "APCDelayBeforeReboot" vs "APCForceShutdown" uncertainty [#1796]
- data/driver.list.in: update for APC CS500 (from 2004) [#1776]

## 2.578 2023-01-10 Jim Klimov <jimklimov+nut@gmail.com>

- configure.ac: report Python choices (if installing anything of it) [#1787]
- m4/nut\_check\_python.m4: if resolved versioned interpreter filename is not a strict expected pattern, fall back to search [#1787]
- m4/nut\_check\_python.m4: warn if using "PYTHON" via "/usr/bin/env" and not exact path [#1787]
- m4/nut\_check\_python.m4: if major version is known and expected, try to resolve the versioned interpreter starting from any initial name (check sanity afterwards, not before) [#1787]
- m4/nut\_check\_python.m4: add python 3.10 to searching list [#1787]
- m4/nut\_check\_python.m4: use pythonX-config if available to find the interpreter path [#1787]
- m4/nut\_check\_python.m4: add comments (and warning) about interpreter names without an exact version (2.\* or 3.\*) [#1787]
- docs/configure.txt: warn about delivering for both Pythons if two are present [#1787]
- ci\_build.sh: copy-paste typo fix for CANBUILD\_NIT\_TESTS handling
- NEWS, drivers/libusb0.c, drivers/libusb1.c, tools/nut-scanner/scan\_usb.c: nut-scanner: report same USB matching values as sought by libusb{0,1}.c [#1790]
- NEWS, drivers/powercom.c: powercom driver should try harder to refresh data from device [#356]
- drivers/libusb0.c, drivers/libusb1.c: drivers/libusb{0,1}.c: bump version for allow\_duplicates [#1756]

## 2.579 2023-01-09 Jim Klimov <jimklimov+nut@gmail.com>

- docs/configure.txt: warn about naming "relaxed" python interpreter versions [#1787]
  - m4/nut\_check\_python.m4: for args like --with-python=python3 try to find build environment dictated pathname first, fall back to "env" second [#1787] Note: this does not apply to --with-python="prog args" as a bit too complex for now
  - m4/nut\_check\_python.m4, docs/configure.txt: detect not-specified PYTHON2/PYTHON3 from PYTHON first (if version is suitable) [#1787]
  - m4/nut\_check\_python.m4: if --with-python2/3 are not specified, use exact path from --with-python (if available) to match its site-packages [#1787]
  - docs/configure.txt: clarify that autogen.sh and configure may default to different PYTHON versions [#1787]
  - m4/nut\_check\_python.m4: actually fail if a Python version was required but not found [#1787]
  - configure.ac, m4/nut\_check\_python.m4: refactor with NUT\_CHECK\_PYTHON\_DEFAULT [#1518]
  - docs/configure.txt: current configure script does not use "PYTHON{,2,3}" envvars [#1787]
  - docs/configure.txt: document python, pynut and nut\_monitor related options and autogen.sh fuss about it [#1787]
  - docs/configure.txt: whitespace fixes
  - docs/configure.txt: hint for builds of git checkouts [#1750]
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**2.580 2023-01-08 Greg Troxel <gdt@lexort.com>**

- conf/upsd.conf.sample: upsd.conf.sample: Clarify LISTEN/firewall comments

**2.581 2023-01-07 Jim Klimov <jimklimov+nut@gmail.com>**

- common/common.c: fix if/ifdef for configure-detected methods [#1590, #1739]
- NEWS, clients/upsclient.h, clients/upsmon.c, clients/upsmon.h, conf/upsmon.conf.sample.in, docs/man/upsmon.conf.txt, docs/man/upsmon.txt, docs/nut.dict: upsmon: Introduce POLLFAIL\_LOG\_THROTTLE\_MAX [#506]
- clients/upsmon.c: cosmetic fixes
- NEWS, docs/FAQ.txt, docs/config-notes.txt, docs/man/upsd.txt: fixup! scripts/systemd/nut-server.service.in, scripts/systemd/nut-monitor.service.in: provide an Alias for convenience (upsd, upsmon)
- docs/configure.txt: document --with-libsystemd related options [#1590]
- common/common.c: optionally define DEBUG\_SYSTEMD\_WATCHDOG to ignore upsnotify\_reported\_watchdog\_systemd hush-flag when troubleshooting [#1590]
- common/common.c: set WATCHDOG\_PID along with MAINPID and re-enable not-posting the pings if expected PID is not ours [#1590]
- common/common.c, m4/nut\_check\_libsystemd.m4: use sd\_notify\_barrier() if available after reporting MAINPID to systemd [#1590]
- configure.ac, docs/man/upsd.txt: configure.ac: run systemd/nut-server.service both with a PID file and without forking [#1781]
- scripts/systemd/nut-server.service.in, scripts/systemd/nut-monitor.service.in: use Restart=on-failure so that clean intentional exit (e.g. by signal handling) does not revive it [#1781]

**2.582 2023-01-06 Yifeng Li <tomli@tomli.me>**

- drivers/huawei-ups2000.c: huawei-ups2000.c: log error code/string for Modbus failures Currently, failures in modbus\_read\_registers() or modbus\_write\_registers() do not show any error code or message in the log, making it difficult to debug. This commit logs the error code, errno, and modbus\_strerror() if an error occurs. Furthermore, the log level of a fatal warning has been changed from LOG\_WARNING to LOG\_ERR (LOG\_WARNING was previously used due to an oversight).

**2.583 2023-01-06 Jim Klimov <jimklimov+nut@gmail.com>**

- common/common.c: upsnotify(): opportunistically post sd\_notify() even if "WATCHDOG\_PID" mismatches [#1590]
  - common/common.c: upsnotify(): log checking "WATCHDOG\_USEC" and "WATCHDOG\_PID" (once) [#1590]
  - common/common.c: upsnotify(): log setting MAINPID [#1590]
  - common/common.c: upsnotify(): hush watchdog-related logging further [#1590]
  - configure.ac, scripts/systemd/nut-driver@.service.in, scripts/systemd/nut-monitor.service.in, scripts/systemd/nut-server.service.in: Suggest default systemd NotifyAccess settings for upsd, upsmon and drivers [#1590]
  - common/common.c: upsnotify(): revise "snprintf needed more than..." messages [#1590]
  - configure.ac: comment a TODO: consider calling "systemd-notify" if have no sd\_notify() [#1590]
  - configure.ac, scripts/systemd/nut-driver@.service.in, scripts/systemd/nut-monitor.service.in, scripts/systemd/nut-server.service.in: Suggest default systemd watchdog settings for upsd, upsmon and drivers [#1590]
  - NEWS, UPGRADING, docs/nut.dict: NEWS, UPGRADING: added libsystemd notification support [#1590]
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- NEWS, UPGRADING: cosmetic fixes
- configure.ac, scripts/systemd/nut-driver@.service.in, scripts/systemd/nut-monitor.service.in, scripts/systemd/nut-server.service.in: configure.ac, scripts/systemd/\*.in: optionally support Type=notify for upsd, upsmon and drivers [#1590]
- scripts/systemd/nut-server.service.in, scripts/systemd/nut-monitor.service.in: provide an Alias for convenience (upsd, upsmon)
- drivers/main.c: make use of new upsnotify() [#1590]
- server/upsd.c: make use of new upsnotify() [#1590]
- clients/upslog.c: make use of new upsnotify() [#1590]
- clients/upsmon.c: make use of new upsnotify() [#1590]
- common/common.c: parsepid(): handle NULL input reasonably on all platforms [#1590]
- drivers/libusb1.c: handle non-zero libusb port numbers as valid [#1774]

## 2.584 2023-01-06 Greg Troxel <gdt@lexort.com>

- docs/man/upsmon.txt: Explain POWERDOWNFLAG Document that it is removed at successful startup

## 2.585 2023-01-05 Jim Klimov <jimklimov+nut@gmail.com>

- common/Makefile.am, common/common.c, include/common.h: common/common.c: add upsnotify() method into libcommon.la (but not libcommonclient) [#1590]
- configure.ac, drivers/Makefile.am: use LIBI2C\_LIBS to avoid pulling -li2c everywhere
- configure.ac, docs/config-prereqs.txt, m4/nut\_check\_libsystemd.m4: m4/nut\_check\_libsystemd.m4, configure.ac: On systemd aware OSes, optionally integrate with sd\_notify() [#1590]
- NEWS: mention update of NUT COPYING file [#1758]
- NEWS, docs/man/nut\_usb\_addvars.txt, drivers/libusb0.c, drivers/libusb1.c: Introduce an allow\_duplicates flag for common USB matching options [#1756]
- drivers/libusb0.c, drivers/libusb1.c, drivers/usb-common.c: drivers/libusb{0,1}.c, drivers/usb-common.c: update comments in device matcher code
- drivers/usb-common.h: update amount of supported possibly unique fields to try for device matching
- drivers/libusb0.c, drivers/libusb1.c, drivers/usb-common.c: drivers/libusb{0,1}.c, drivers/usb-common.c: update comments in device matcher code

## 2.586 2023-01-05 Greg Troxel <gdt@lexort.com>

- docs/man/upsdrvctl.txt: docs/man: Clarify upsdrvctl shutdown
  - docs/man/bestfcom.txt, docs/man/bestfortress.txt, docs/man/bestups.txt: docs/man: Clarify Best driver support for Fortress LI660
  - MAINTAINERS: add pkgsrc
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**2.587 2023-01-05 Edgar Fuß <ef@math.uni-bonn.de>**

- drivers/libusb1.c: Set curDevice→Device during USB enumeration During USB enumeration, set curDevice→Device. Try to use libusb1's port number obtained by libusb\_get\_port\_number(), but that seems useless at least on NetBSD. So, use devnum (the enumeration loop variable), which at least makes two identically looking USB UPSen distinguishable again. Maybe we want to add a Port property set to what libusb\_get\_port\_number() reports? Previously missed during refactoring to libusb1.
- drivers/nutdrv\_qx\_masterguard.c: Add experimental prefix missed in 7ef2874e81 drivers/nutdrv\_qx\_masterguard.c: Add "experimental." prefix in masterguard\_claim(). Needed because that prefix had been added (in 7ef2874e81952fac532014a8840a217cf1d63) to the variable names in the masterguard\_qx2nut[] table.

**2.588 2023-01-04 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS: announce new "driver.state" feature [#1767]
- docs/nut-names.txt, drivers/adelsystem\_cbi.c, drivers/bcmxcp\_usb.c, drivers/blazer\_usb.c, drivers/generic\_modbus.c, drivers/main.c, drivers/nutdrv\_qx.c, drivers/powerman-pdu.c, drivers/richcomm\_usb.c, drivers/riello\_usb.c, drivers/tripplite\_usb.c, drivers/usbhid-ups.c: driver/\*.c: report reconnection attempts as a "driver.state" [#1767]
- drivers/main.c: report where driver.state changes from init.\* to just before regular work [#1767]
- docs/nut-names.txt, docs/nut.dict, drivers/main.c: drivers/main.c, docs/nut-names.txt: introduce "driver.state" tracking [#1767]
- docs/nut-names.txt: update with final RFC 9271 reference
- docs/nut-names.txt: update WITH\_UNMAPPED\_DATA\_POINTS [#1699, #1742]
- drivers/richcomm\_usb.c: hide from help() the USB matching settings that are not currently handled by the driver [#1768]
- docs/man/richcomm\_usb.txt: hide from docs the USB matching settings that are not currently handled by the driver [#1768]
- docs/man/nut\_usb\_addvars.txt: document usb\_set\_altinterface setting (from libusb{0,1}.c)
- NEWS: man pages refactored for USB matching options description [#1766]
- docs/man/usbhid-ups.txt: refactor to include nut\_usb\_addvars.txt
- docs/man/nut\_usb\_addvars.txt: update with reasoning for nut\_usb\_addvars settings from usbhid-ups.txt
- docs/man/tripplite\_usb.txt: refactor to include nut\_usb\_addvars.txt
- docs/man/nut\_usb\_addvars.txt: update with references to lsusb and regex from tripplite\_usb.txt
- docs/man/richcomm\_usb.txt, docs/man/riello\_usb.txt: refactor to include nut\_usb\_addvars.txt [#1763]
- docs/man/nutdrv\_qx.txt: refactor to include nut\_usb\_addvars.txt
- docs/man/nut\_usb\_addvars.txt: pick up "port" mention from nutdrv\_qx.txt and expand on it
- drivers/nutdrv\_atcl\_usb.c: report device\_match\_func() failure and refer to nutdrv\_qx more prominently
- docs/man/nutdrv\_atcl\_usb.txt: this driver uses a very custom device-matcher with only a vendor string
- NEWS, drivers/Makefile.am, drivers/nutdrv\_atcl\_usb.c: Revert "drivers/nutdrv\_atcl\_usb.c: upsdv\_makevaritable(): refer to nut\_usb\_addvars() [#1754]" This reverts commit 3b1b921669da9ca7f360c9bca9645fa6816f66ed. This driver uses a very custom device-matcher.
- docs/man/bcmxcp\_usb.txt: mention lack of support for common nut\_usb\_addvars [#1764]
- docs/man/Makefile.am, docs/man/blazer-common.txt, docs/man/nut\_usb\_addvars.txt, docs/nut.dict: Introduce docs/man/nut\_usb\_addvars (initial content from blazer-common.txt with updated formatting)
- NEWS: mention the fix for USB matching options fix for some drivers

- drivers/riello\_usb.c: upsdrv\_makevartable(): refer to nut\_usb\_addvars() [#1754]
- drivers/Makefile.am, drivers/richcomm\_usb.c: drivers/richcomm\_usb.c: upsdrv\_makevartable(): refer to nut\_usb\_addvars() [#1754]
- drivers/Makefile.am, drivers/nutdrv\_atcl\_usb.c: drivers/nutdrv\_atcl\_usb.c: upsdrv\_makevartable(): refer to nut\_usb\_addvars() [#1754]
- drivers/blazer\_usb.c, drivers/nutdrv\_qx.c: upsdrv\_makevartable(): cosmetic fixes
- drivers/bcmxcp.h: fix include-fencing macros
- configure.ac: make default POWERDOWNFLAG configurable [#529] - escape more for autotools
- configure.ac, scripts/Makefile.am, scripts/RedHat/.gitignore, scripts/RedHat/ups, scripts/RedHat/ups.in, scripts/RedHat/upsd, scripts/RedHat/upsd.in, scripts/RedHat/upsmon, scripts/RedHat/upsmon.in: scripts/Redhat/\*: drop older scripts with hardcoding, modernize .in templates for POWERDOWNFLAG and similar config options
- configure.ac: revise configuration of NUT path location variables and their substitutions

## 2.589 2023-01-03 Jim Klimov <jimklimov+nut@gmail.com>

- docs/man/belkinunv.txt: modernize about "upsmon -K" and POWERDOWNFLAG or explicit /etc/killpower [#529]
- docs/FAQ.txt: modernize about "upsmon -K" and POWERDOWNFLAG or explicit /etc/killpower [#529]
- NEWS, conf/upsmon.conf.sample.in, configure.ac, docs/configure.txt, docs/nut.dict: configure.ac and many others: make default POWERDOWNFLAG configurable [#529] Closes: #529
- server/conf.c, server/conf.h, server/upsd.c: server/upsd.c, server/conf.c: remember debug level specified in command line args, may be useful in reload [#1761] Closes: #1761
- clients/upsmon.c: do not report initial debug level twice
- clients/upsmon.c: remember debug level specified in command line args, may be useful in reload [#1761]
- clients/upsmon.c: "upsmon -K" should not die if daemon is running [#1680] Closes: #1680
- clients/upsmon.c: debug-trace notification activity [#1760]

## 2.590 2023-01-02 Jim Klimov <jimklimov+nut@gmail.com>

- COPYING, docs/nut.dict: COPYING: update to acknowledge codebase picked up from BSD, curl and CC BY-SA sources over time
  - docs/man/ups.conf.txt, docs/man/upsdrvctl.txt, docs/man/upsdrvsvctl.txt, drivers/upsdrvctl.c, scripts/systemd/nut-driver@.service.in, drivers/upsdrvctl.c, scripts/systemd/nut-driver@.service.in: add support for NUT\_IGNORE\_NOWAIT [#1753]
  - UPGRADING: highlight nut-common.tmpfiles(.in) ⇒ nut-common-tmpfiles.conf(.in) rename and other changes since NUT v2.8.0 release
  - autogen.sh, configure.ac, scripts/systemd/.gitignore, scripts/systemd/Makefile.am: Rename generated nut-common.tmpfiles(.in) ⇒ nut-common-tmpfiles.conf(.in) to install a \*.conf pattern [#1754] Follow-up for #1030, #1037, #1117 May be related to #1712
  - NEWS, docs/nut.dict: NEWS: reference arcane installation know-how for Solaris 8 [#1736]
  - NEWS: Clarified documentation in codebase according to end-user feedback for NUT v2.8.1 release
  - INSTALL.nut: clarify that the instruction is for tarballs (hint for builds of git checkouts) [#1750]
  - docs/man/upsmon.txt: clarify that FSD latches until upsd is restarted [#1721]
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- docs/man/upsmon.txt: rearrange paragraphs with related content [#1721]
- tools/nut-scanner/nutscan-init.c: adjust WIN32 shared library detection for SNMP and NEON [#1735] At least as of Appveyor CI builds and their DLL naming both on MSYS2 MinGW "semi-native" builds, and linux mingw (libneon).
- tools/nut-scanner/nutscan-init.c: annotate blocks for shared library detection

### 2.591 2022-12-28 Jim Klimov <jimklimov+nut@gmail.com>

- tests/NIT/nit.sh: testcase\_upsd\_allow\_no\_device(): give VERY laggy systems (e.g. build farm swapping) another chance
- ci\_build.sh: apply CCACHE PATH discovery to mingw builds
- ci\_build.sh: cosmetic fix
- ci\_build.sh: report PATH and CCACHE decisions in build host settings

### 2.592 2022-12-26 Jim Klimov <jimklimov+nut@gmail.com>

- scripts/augeas/Makefile.am: clean away nutupsconf.aug.in.AUTOGEN\_WITHOUT if it appears
- configure.ac: if default "python" was not found, use py2 or py3; avoid keeping "no" as an answer [#1736]
- m4/nut\_check\_python.m4: recognize python-3.6 too
- include/common.h: size\_t
- tests/NIT/nit.sh: avoid "sed -i" - safer approach [#1736]

### 2.593 2022-12-25 Jim Klimov <jimklimov+nut@gmail.com>

- tools/gitlog2changelog.py.in: tools/gitlog2changelog.py: avoid prefixing file list to messages whose commit comment starts with equivalent list
- tools/gitlog2changelog.py.in: tools/gitlog2changelog.py: support Python 3.6 (and older 3.x) regarding UTF-8 content of git changelog
- drivers/belkin-hid.c, drivers/cps-hid.c, drivers/ever-hid.c, drivers/idowell-hid.c, drivers/liebert-hid.c, drivers/powercom-hid.c, drivers/tripplite-hid.c: drivers/\*-hid.c: fence WITH\_UNMAPPED\_DATA\_POINTS [#1699]
- drivers/apc-ats-mib.c, drivers/apc-epdu-mib.c, drivers/apc-mib.c, drivers/apc-pdu-mib.c, drivers/compaq-mib.c, drivers/delta\_ups-mib.c, drivers/eaton-ats16-nm2-mib.c, drivers/eaton-ats16-nmc-mib.c, drivers/eaton-ats30-mib.c, drivers/eaton-pdu-marlin-mib.c, drivers/eaton-pdu-nlogic-mib.c, drivers/emerson-avocent-pdu-mib.c, drivers/hpe-pdu-mib.c, drivers/hpe-pdu3-cis-mib.c, drivers/huawei-mib.c, drivers/raritan-px2-mib.c: drivers/\*-mib.c: fence WITH\_UNMAPPED\_DATA\_POINTS [#1699]
- NEWS, configure.ac, docs/configure.txt, docs/hid-subdrivers.txt, docs/snmp-subdrivers.txt, scripts/subdriver/gen-snmplib-subdriver.sh, scripts/subdriver/gen-usbhid-subdriver.sh: configure.ac, scripts/subdriver/gen-\*.sh: introduce WITH\_UNMAPPED\_DATA\_POINTS flag [#1699]
- tools/gitlog2changelog.py.in: tools/gitlog2changelog.py: avoid prefixing file list to messages whose commit comment starts with equivalent list
- tools/gitlog2changelog.py.in: tools/gitlog2changelog.py: support Python 3.6 (and older 3.x) regarding UTF-8 content of git changelog

### 2.594 2022-12-22 Jim Klimov <jimklimov@gmail.com>

- common/common.c, common/snprintf.c, configure.ac, drivers/mge-hid.c: configure.ac: fix AC\_CHECK\_FUNCS ⇒ AC\_CHECK\_DECL where we care for includes [#1738]

**2.595 2022-12-22 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac, tests/.gitignore, tests/Makefile.am: configure.ac, tests/Makefile.am: introduce and check for REQUIRE\_NUT\_STRARG flag [#1736, #1737]
- tests/nutlogtest.c: reword message so we see it even if libc printf("%s", NULL) does a null-dereference [#1736]
- tests/NIT/nit.sh: avoid PYTHON=no [#1736]
- tests/NIT/nit.sh: avoid "sed -i" [#1736]
- tests/NIT/nit.sh: dumb down shell syntax for older Solaris interpreter [#1736]
- tools/nut-usbinfopl: old typo fix (overlaid file variable and file name)
- configure.ac, tools/nut-scanner/Makefile.am: if we HAVE\_SEMAPHORE, some systems may need additional SEMLIBS [#1736]
- tools/Makefile.am: avoid spurious error messages when PYTHON=no [#1736]
- scripts/augeas/Makefile.am: avoid spurious error messages when PYTHON=no [#1736]
- drivers/mge-hid.c: provide a fallback round() [#1736]
- tests/getvaluetest.c: do not directly include stdint.h (not ubiquitous) [#1736]
- drivers/pijuice.c: do not directly include stdint.h (not ubiquitous) [#1736]
- drivers/eaton-pdu-marlin-helpers.c: do not directly include stdint.h (not ubiquitous) [#1736]
- drivers/adelsystem\_cbi.h: drivers/adelsystem\_cbi.c: do not directly include stdint.h (not ubiquitous) [#1736]
- common/strptime.c: do not always directly include stdint.h (not ubiquitous) [#1736]
- drivers/riello.c, drivers/riello.h, drivers/riello\_ser.c, drivers/riello\_usb.c: drivers/riello\*.{c,h}: do not directly include stdint.h (not ubiquitous) [#1736]
- common/strnlen.c: untie from freeBSD specifics [#1736]
- common/Makefile.am, common/strnlen.c, configure.ac: configure.ac, common/strnlen.c: Detect and provide a fallback strnlen() if needed [#1736]
- common/common.c: fix pragmas for systems without a UINTPTR\_MAX defined [#1736]
- NEWS: autogen.sh support for CONFIG\_SHELL [#1736]
- autogen.sh: support CONFIG\_SHELL envvar to embed into generated configure script (and syntax-check with it) [#1736]

**2.596 2022-12-21 Jim Klimov <jimklimov+nut@gmail.com>**

- autogen.sh: enhance report of failed syntax checks [#1736]
- autogen.sh: dumb syntax down for xpg/ksh88 or older [#1736]
- tools/nut-usbinfopl: dumb syntax down for perl 5.005 (Solaris 8 compat) [#1736]

**2.597 2022-12-20 Clappier, Eric <EricClappier@eaton.com>**

- drivers/eaton-pdu-nlogic-mib.c: Fix discovery issue with Eaton pdu nlogic

**2.598 2022-12-08 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/nut.dict: update dict
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**2.599 2022-12-02 Jim Klimov <jimklimov+nut@gmail.com>**

- clients/upsmon.c: refactor probing/signaling old instance into one handling/reporting codebase [#1721]
- server/upsd.c: refactor probing/signaling old instance into one handling/reporting codebase [#1721]
- clients/upsmon.c: generic report if we "Failed to signal the currently running daemon" [#1721]
- server/upsd.c: generic report if we "Failed to signal the currently running daemon" [#1721]

**2.600 2022-12-01 Jim Klimov <jimklimov+nut@gmail.com>**

- common/common.c: clarify inability to find OS user info (vs. NUT user) [#1721]
- docs/FAQ.txt, docs/config-notes.txt, docs/man/upsd.txt: docs/\*.txt: clarify "upsd -c reload" vs. PID file (and systemd) [#1721]
- conf/upsmon.conf.sample.in: clarify RUN\_AS\_USER as OS-defined account for upsmon [#1721]
- conf/ups.conf.sample, conf/upsd.users.sample, conf/upsmon.conf.sample.in: conf/\*.sample: standardize on "monuser" as example NUT-defined account for upsmon [#1721]
- clients/upsmon.c: consider HAVE\_SYSTEMD to report if PID file was missing [#1721]
- server/upsd.c: consider HAVE\_SYSTEMD to report if PID file was missing [#1721]
- configure.ac: refactor definition of HAVE\_SYSTEMD so we can use it in C code [#1721]
- scripts/systemd/nut-server.service.in: re-document use of PID file, for reloads to work [#1721]
- common/common.c: become\_user(): cosmetic/messaging: discern starting as not-root vs. already the requested user [#1718]  
Closes: #1718
- NEWS, UPGRADING: reference GitHub PR numbers for snmp-ups updates [#1715, #1716]

**2.601 2022-12-01 Jim Klimov <jim@jimklimov.com>**

- .github/workflows/codeql.yml: Update codeql.yml Drop python for now
- .github/workflows/codeql.yml: Create codeql.yml LGTM.com is being deprecated in favor of equivalent GitHub Action by same team \* <https://github.blog/2022-08-15-the-next-step-for-lgtm-com-github-code-scanning/> \* <https://docs.github.com/en/code-security/code-scanning/automatically-scanning-your-code-for-vulnerabilities-and-errors/setting-up-code-scanning-for-a-repository#setting-up-code-scanning-manually>

**2.602 2022-11-28 Tiph <titi\_\_13@hotmail.com>**

- drivers/mge-hid.c: Update mge-hid.c fixed conversion issue

**2.603 2022-11-27 Florian Weimer <fweimer@redhat.com>**

- m4/ax\_c\_pragmas.m4: Fix several issues with the AX\_C\_PRINTF\_STRING\_NULL check Adjust quoting in the AX\_C\_PRINTF\_STRING\_NULL definition. Switch to strstr and include <string.h> instead of <strings.h>. Add missing braces and parentheses. Use double-quote for string literals. The test now reports success on glibc, as expected.
  - m4/ax\_c\_attribute.m4: Fix AX\_C\_ATTRIBUTE configure check to call the right function The function foo is defined in the C fragment, but the func function is undeclared. This avoids relying on an implicit function declaration, a C language feature that was removed in 1999.
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**2.604 2022-11-25 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac: comment about nut\_inplace\_user detection from \*.pc files [#1714]
  - configure.ac: fix inplace sysconfdir detection [#1714]
  - configure.ac: clarify "checking requested X" ⇒ default/specified vs "checking setting X" ⇒ final value [#1714]
  - configure.ac: try to detect nut\_inplace\_group and nut\_inplace\_user from existing configs [#1714]
  - configure.ac: avoid changing permissions of \*/tmp and /dev/shm with nut-common.tmpfiles
  - configure.ac: use PIDPATH="/run" if it is so on the build system
  - NEWS, UPGRADING: document @ALTPIDPATH@ vs. @PIDPATH@ (and removal of @PIDPATH@/nut ambiguity) [#1712]
  - scripts/Aix/nut.init.in, scripts/HP-UX/postinstall.in, scripts/Solaris/nut-server.xml.in, scripts/Solaris/postinstall.in, scripts/Solaris/postremove.in, scripts/Solaris/svc-nut-monitor.in, scripts/Solaris/svc-nut-server.in: Reference init-script and packaging templates: eradicate "@PIDPATH@/nut" ambiguity in favor of "@ALTPIDPATH@" (and explicitly ensure "@PIDPATH@" where applicable) [#1712]
  - configure.ac: AC\_SUBST(ALTPIDPATH)
  - configure.ac: report "\$prefix"
  - m4/nut\_report\_feature.m4: fix detection of chapter "1" and other nuances
  - m4/nut\_report\_feature.m4: align reports with tabulation
  - configure.ac: use NUT\_REPORT\_TARGET [#1708]
  - m4/nut\_report\_feature.m4: add NUT\_REPORT\_TARGET [#1708]
  - m4/nut\_report\_feature.m4: fix comments
  - m4/nut\_report\_feature.m4: refactor NUT\_REPORT\_FILE() for second-level headings and less file-openings
  - configure.ac, docs/configure.txt: configure.ac: clarify that PIDPATH is for NUT directly (privileged daemons) [#123, #1712]
  - configure.ac: refactor to use NUT\_REPORT\_SETTING\_PATH() to summarize separately from other toggles [#1708 follow-up]
  - m4/nut\_report\_feature.m4: add separate chapter for NUT\_REPORT\_PATH() and NUT\_REPORT\_SETTING\_PATH() to populate it
  - .gitignore, Makefile.am, m4/nut\_report\_feature.m4: m4/nut\_report\_feature.m4: refactor to hold and append different summary chapters in different files [#1708 follow-up]
  - m4/nut\_report\_feature.m4: change markup of usage() comments to avoid m4 surprises
  - ci\_build.sh: in case of success for default build, remind the chosen config.nut\_report\_feature.log settings
  - Makefile.am: install-win-bundle-thirdparty: fix indentations
  - configure.ac: use NUT\_REPORT\_SETTING() for various path tunables
  - configure.ac: fix generation of systemd/nut-common.tmpfiles Should have no "nut" subdir for STATEPATH and ALTPIDPATH Follow-up for #1030, #1037, #1117 May be related to #1712
  - configure.ac: NUT\_REPORT\_SETTING() for RUN\_AS\_USER and RUN\_AS\_GROUP
  - configure.ac: change AS\_HELP\_STRINGS and some other comments/messages for STATEPATH and PIDPATH to clarify
  - m4/nut\_report\_feature.m4: introduce NUT\_REPORT\_SETTING() ... and comment arguments for NUT\_REPORT\_FEATURE()
  - NEWS, ci\_build.sh: NEWS: add ./ci\_build.sh inplace operation shortcut [#1714]
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- ci\_build.sh: add support for INPLACE\_RUNTIME=true
- configure.ac: move checking for better default user/group based on current system circumstances down, to just before we use them
- configure.ac: report if checking for better sysconfdir/user/group and how it went
- NEWS: update for `configure --enable-inplace-runtime` [#1714]
- docs/configure.txt, docs/nut.dict: docs/configure.txt: update for `--enable-inplace-runtime` [#1714]
- configure.ac: impact default sysconfdir by `--enable-inplace-runtime`
- configure.ac: change AS\_HELP\_STRINGs for hotplugdir, udevdir and devddir to report current defaults (not arbitrary suggestions)
- configure.ac: introduce `--enable-inplace-runtime` and impact default RUN\_AS\_USER and RUN\_AS\_GROUP by that
- configure.ac: move final processing of `--with-user` and `--with-group` to end of script
- configure.ac: comment initial settings for RUN\_AS\_\* and PIDPATH

#### 2.605 2022-11-25 Arnaud Quette <ArnaudQuette@eaton.com>

- NEWS, drivers/snmp-ups.c: snmp-ups: fix "Warning: excessive poll failures" Fix that long standing issue, which was tied to non-existent OIDs, not well handled in some part of the driver Closes: #743

#### 2.606 2022-11-24 Arnaud Quette <ArnaudQuette@eaton.com>

- docs/nut.dict: Spelling dictionary completion
- NEWS, UPGRADING, docs/man/snmp-ups.txt, drivers/Makefile.am, drivers/{powerware-mib.c ⇒ eaton-ups-pwnm2-mib.c}, drivers/eaton-ups-pwnm2-mib.h, drivers/eaton-ups-pxg-mib.c, drivers/{powerware-mib.h ⇒ eaton-ups-pxg-mib.h}, drivers/snmp-ups.c: snmp-ups: split Eaton pw and pxgx\_ups implementation To better manage the slight nuances (especially in ups.status), between Eaton UPSs, implementation file was split in 2 files, and mib name were renamed from *pw* to *eaton\_pw\_nm2*, and from *pxgx\_ups* to *eaton\_pxxg\_ups* Thanks to Quentin Renard (Eaton) for discovering the bug

#### 2.607 2022-11-22 Jim Klimov <jimklimov@gmail.com>

- NEWS: added "hpe-pdu3-cis-mib" snmp-ups subdriver [#1713]

#### 2.608 2022-11-22 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/hpe-pdu3-cis-mib.c: fix reference to WITH\_UNMAPPED\_DATA\_POINTS This feature was only proposed, not yet implemented in main codebase
- docs/nut.dict: update for #1713

#### 2.609 2022-11-22 Arnaud Quette <ArnaudQuette@eaton.com>

- data/driver.list.in, drivers/Makefile.am, drivers/hpe-pdu3-cis-mib.c, drivers/hpe-pdu3-cis-mib.h, drivers/snmp-ups.c: snmp-ups: add support for HPE G2 Metered & Switched PDU This support is unitary (no daisychain support yet). Also note that, due to SNMP v1 implementation limitations on this device, you should prefer SNMP v3 to get both read and write rights

#### 2.610 2022-11-21 Jim Klimov <jimklimov+nut@gmail.com>

- NEWS: update for snmp-ups fix with wrong sysOID responses [#1710]
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**2.611 2022-11-21 Arnaud Quette <ArnaudQuette@eaton.com>**

- drivers/snmp-ups.c: Fix sysOID retrieval on non-compliant device Some SNMP agent (device) wrongly return the sysOID value as a string instead of an OID. This breaks the initial sysOID matching system of the driver

**2.612 2022-11-16 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac, m4/nut\_report\_feature.m4: m4/nut\_report\_feature.m4: report configure invocation args
- NEWS, docs/nut.dict: NEWS: snmp-ups added "eaton-pdu-nlogic-mib" subdriver [#1698]

**2.613 2022-11-15 Jim Klimov <jimklimov@gmail.com>**

- Makefile.am: Update Makefile.am maintainer-clean the config.nut\_report\_feature.log

**2.614 2022-11-15 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/eaton-pdu-nlogic-mib.c: provide default (NULL) for "device.part"
- appveyor.yml: publish config.nut\_report\_feature.log artifact
- m4/nut\_report\_feature.m4: NUT\_REPORT\_COMPILERS: separate cosmetic colon from reported values
- scripts/Windows/build-mingw-nut.sh: parameterize ARCH\_PREFIX
- scripts/Windows/build-mingw-nut.sh, ci\_build.sh: --enable-keep\_nut\_report\_feature in CI builds
- ci\_build.sh: --enable-keep\_nut\_report\_feature in CI builds
- m4/nut\_report\_feature.m4: make config.nut\_report\_feature.log contents more asciidoc-friendly
- m4/nut\_report\_feature.m4: start config.nut\_report\_feature.log with title, not empty line
- m4/nut\_report\_feature.m4, configure.ac: introduce --enable-keep\_nut\_report\_feature
- m4/nut\_report\_feature.m4, configure.ac: separate NUT\_REPORT\_COMPILERS from NUT\_PRINT\_FEATURE\_REPORT
- m4/nut\_report\_feature.m4: update headings in generated config.nut\_report\_feature.log sections
- configure.ac: fix behavior for customized paths in systemdsystemunitdir/systemdshutdownndir/systemdtmpfilesdir
- configure.ac: fix mis-diagnosed "--with-systemdsystemunitdir=yes was requested, but PKG\_CONFIG..." when it was not requested in fact
- .gitignore, m4/nut\_report\_feature.m4: m4/nut\_report\_feature.m4: Rename conf\_nut\_report\_feature artifact to config.nut\_report\_feature
- m4/nut\_report\_feature.m4: save compiler settings into "conf\_nut\_report\_feature" too
- docs/nut.dict: update for nut-website::projects.txt
- docs/nut.dict: update dict
- docs/nut.dict: update for nut-website::projects.txt

**2.615 2022-11-15 Arnaud Quette <arnaud.quette@gmail.com>**

- drivers/eaton-pdu-nlogic-mib.c: Update eaton-pdu-nlogic-mib.c Fix a typo in data flags
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**2.616 2022-11-12 Jim Klimov <jimklimov+nut@gmail.com>**

- appveyor.yml: disable required forced rebuilds of net-snmp (and debug of build-mingw-prereqs.sh) [#1475]

**2.617 2022-11-11 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/Windows/build-mingw-prereqs.sh: use curl if wget fails from sourceforge [#1475]
- appveyor.yml: temporarily force rebuild of net-snmp
- scripts/Windows/build-mingw-prereqs.sh: handle possibly missing SUDO differently [#1475]
- appveyor.yml: use scripts/Windows/build-mingw-prereqs.sh [#1475]
- scripts/Windows/build-mingw-prereqs.sh: Add scripts/Windows/build-mingw-prereqs.sh [#1475]
- appveyor.yml: fix typo
- appveyor.yml: fix comment for config.log artifact
- appveyor.yml: try to ensure presence of net-snmp in MSYS2 MinGW builds [#1475]
- scripts/Windows/README: update DLDIR and WSDIR definitions
- scripts/Windows/README: update *sudo* suggestions for Windows MSYS2 builds [#1475]
- scripts/Windows/README: update envvar setting suggestions for Windows MSYS2 builds [#1475]

**2.618 2022-11-10 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/Windows/README, docs/config-prereqs.txt: document missing bits for net-snmp in MSYS2 [#1475]
- scripts/Windows/README: do not hardcode /usr/\$ARCH when we have \$PREFIX
- docs/nut-names.txt: clarify "unmapped.x.y" not-quite-namespace

**2.619 2022-11-09 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/augeas/gen-nutupsconf-aug.py.in: skip a false-positive from Augeas driver options

**2.620 2022-11-09 Clappier, Eric <EricClappier@eaton.com>**

- data/driver.list.in: Add eaton (nLogic) pdu in driver.list
- drivers/Makefile.am, drivers/eaton-pdu-nlogic-mib.c, drivers/eaton-pdu-nlogic-mib.h, drivers/snmp-ups.c: Integrate nLogic pdu (snmp)

**2.621 2022-11-06 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/config-prereqs.txt, docs/nut.dict: docs/config-prereqs.txt: update freeipmi -largp install for OpenBSD (6.4 \+ 6.5 checked)

**2.622 2022-11-03 Jim Klimov <jimklimov@gmail.com>**

- drivers/riello\_usb.c: Update riello\_usb.c Log that guesstimation will be used instead of device readings (if any)
  - docs/man/riello\_usb.txt: Update riello\_usb.txt Use "guesstimate" as common NUT term for future searches
  - docs/nut.dict: Update nut.dict
  - NEWS: Update NEWS
-

**2.623 2022-11-03 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/riello\_usb.c: testvar("localcalculation") only once, use cached int in the loop [#1692]
- drivers/riello\_usb.c: do not set bogus "ups.temperature" as 0, log low-prio message instead [#1692]
- drivers/riello\_usb.c: only log once about possibly missing battery.charge and battery.runtime [#1692]
- NEWS, docs/man/riello\_usb.txt: fix "docs/man/riello\_usb.txt" description [#1692]
- drivers/riello\_usb.c: deduplicate message about possibly missing battery.charge and battery.runtime [#1692]
- drivers/riello\_usb.c: fix indentation [#1692]

**2.624 2022-11-02 Jim Klimov <jimklimov@gmail.com>**

- NEWS: we log uid/gid/chroot changes since 2.8.1 [#1694]

**2.625 2022-11-01 Jim Klimov <jimklimov+nut@gmail.com>**

- tests/NIT/nit.sh: expand permissions for NUT\_CONFPATH/\*.conf if started as root (tested daemons cannot read them otherwise)
- common/common.c: chroot\_start(): log entering chroot jail (or inability to do so)
- common/common.c: become\_user(): log change of UID/GID (or inability to do so)

**2.626 2022-10-31 Jim Klimov <jimklimov@gmail.com>**

- docs/nut.dict: Update nut.dict
- docs/nut.dict: Update nut.dict
- docs/man/riello\_usb.txt: Update riello\_usb.txt Added localcalculation flag description
- NEWS: added localcalculation flag for riello\_usb

**2.627 2022-10-30 amikot <3470285+amikot@users.noreply.github.com>**

- drivers/riello\_usb.c: Update riello\_usb.c Added driver setting flag `localcalculation`. When enabled, driver will calculate values of battery.runtime and battery.load locally. This is for some Riello models (iPlug and iDialog series) that provides incorrect values. Local calculation is done according to nominal battery capacity, nominal battery voltage, actual battery charge, maximum and actual UPS load. Added condition to filter off situation when battery temperature variable is incorrectly set to variable type maximum (255) - which is typical issue of some Riello models (iPlug and iDialog series). If incorrect value is detected temperature is set to 0.

**2.628 2022-10-21 Yifeng Li <tomli@tomli.me>**

- docs/man/huawei-ups2000.txt: huawei-ups2000.txt: document another UPS2000-G-1KRTS. This is another newer "UPS2000-G" variant encountered by a user in the wild and reported [1] to me. [1] Personal communication, thanks for reporting.
- docs/man/huawei-ups2000.txt: huawei-ups2000.txt: document another UPS2000-A-1KTTS. This commit adds UPS2000-A-1KTTS with another firmware version (V2R1C1SPC50) to the list of tested UPS models. Thanks @ultinous-dancsa for reporting it [1]. [1] <https://github.com/networkupstools/nut/issues/1017#issuecomment-1020013055>

**2.629 2022-10-21 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/upsdrvsvctl/nut-driver-enumerator.sh.in: fix more "egrep" ⇒ "grep -E" cases in the older branch

**2.630 2022-10-20 Jim Klimov <jimklimov+nut@gmail.com>**

- m4/nut\_check\_python.m4: clarify message for "Version reported ... not suitable"
- NEWS: fix for snmp-ups type error handling [#1682]
- drivers/snmp-ups.c: apply comments from PR review to make code better understandable [#1682]

**2.631 2022-10-18 Clappier, Eric <EricClappier@eaton.com>**

- drivers/snmp-ups.c: Fix walk issue with snmpv3 ( add type error execption )

**2.632 2022-10-14 Jim Klimov <jimklimov@gmail.com>**

- drivers/snmp-ups.c: Update snmp-ups.c Avoid potential NULL pointer dereference in a debug printout

**2.633 2022-10-13 Jim Klimov <jimklimov@gmail.com>**

- docs/nut.dict: Update nut.dict
- AUTHORS: Update AUTHORS

**2.634 2022-10-13 Clappier, Eric <EricClappier@eaton.com>**

- drivers/apc-epdu-mib.c: Fix bad traduction in code
- drivers/apc-epdu-mib.c: Fix outlets display Add global current
- drivers/snmp-ups.c: Fix index computed issue when OID is absent

**2.635 2022-10-12 zakx <zakx@users.noreply.github.com>**

- AUTHORS, data/driver.list.in, docs/man/snmp-ups.txt: Documentation update regarding Network-M2 card The Eaton Gigabit Network Card (Network-M2) is already well-supported by the powerware driver. This patch updates the documentation to reflect this.

**2.636 2022-10-12 Jim Klimov <jimklimov@gmail.com>**

- NEWS: apc-epdu-mib added for NUT v2.8.1

**2.637 2022-10-10 Clappier, Eric <EricClappier@eaton.com>**

- drivers/Makefile.am, drivers/apc-epdu-mib.c, drivers/apc-epdu-mib.h, drivers/snmp-ups.c: Add SNMP apc easy pdu support

**2.638 2022-10-05 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/Windows/README: update mingw libneon build instructions
-

**2.639 2022-09-25 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/nutdrv\_qx.c: qx\_initbattery(): adjust initially known "battery.voltage" right away, if we know the batt.packs and that battery\_voltage\_reports\_one\_pack [#1279]
- tests/NIT/nit.sh: make use of NUT\_QUIET\_INIT\_SSL
- NEWS, clients/upsclient.c, docs/man/upscli\_init.txt: clients/upsclient.c, docs, NEWS: support NUT\_QUIET\_INIT\_SSL envvar to hide "Init SSL without certificate database" message [#1662]
- clients/upsclient.c: fix typo in message

**2.640 2022-09-22 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/nutdrv\_qx.c: qx\_multiply\_battvolt(): init temporary "s" to 0 (so if sscanf() somehow fails/skips, we have a non-toxic outcome)
- drivers/nutdrv\_qx.c: fix getval("battery\_voltage\_reports\_one\_pack") for the driver option flag [#1279]

**2.641 2022-09-21 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/nutdrv\_qx.c, drivers/nutdrv\_qx.h, drivers/nutdrv\_qx\_bestups.c, drivers/nutdrv\_qx\_hunnox.c, drivers/nutdrv\_qx\_mecer.c, drivers/nutdrv\_qx\_megatec-old.c, drivers/nutdrv\_qx\_megatec.c, drivers/nutdrv\_qx\_mustek.c, drivers/nutdrv\_qx\_q1.c, drivers/nutdrv\_qs.c, drivers/nutdrv\_qx\_voltronic.c, drivers/nutdrv\_qx\_zinto.c: drivers/nutdrv\_qx\*: rename multiply\_battvolt() to qx\_multiply\_battvolt to remain specific about the code source

**2.642 2022-09-19 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS: reflect extended default ranges for max battery voltage when guessing [#1279]
  - drivers/blazer\_ser.c, drivers/blazer\_usb.c: drivers/blazer\_{usb,ser}.c: bump DRIVER\_VERSION due to changes in blazer.c [#1279]
  - drivers/nutdrv\_qx.c: qx\_initbattery(): extend default batt.volt.high range when guessing battery.packs count [#1279]
  - drivers/blazer.c: blazer\_packs(): extend default batt.volt.high range when guessing battery.packs count [#1279]
  - drivers/nutdrv\_qx.c: qx\_initbattery(): report if we autodetected number of battery packs [#1279]
  - drivers/nutdrv\_qx.c: qx\_initbattery(): extend default batt.volt.high range [#1279]
  - NEWS, docs/man/nutdrv\_qx.txt, docs/nut.dict, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx.h, drivers/nutdrv\_qx\_bestups.c, drivers/nutdrv\_qx\_hunnox.c, drivers/nutdrv\_qx\_mecer.c, drivers/nutdrv\_qx\_megatec-old.c, drivers/nutdrv\_qx\_megatec.c, drivers/nutdrv\_qx\_mustek.c, drivers/nutdrv\_qx\_q1.c, drivers/nutdrv\_qx\_voltronic-qs.c, drivers/nutdrv\_qx\_voltronic.c, drivers/nutdrv\_qx\_zinto.c: nutdrv\_qx: introduce a "battery\_voltage\_reports\_one\_pack" driver option [#1279]
  - drivers/nutdrv\_qx.c: bump DRIVER\_VERSION for issue #1279 changes
  - drivers/eaton-pdu-pulizzi-mib.c: standardize on "guesstimate", "guesstimation" spelling
  - drivers/snmp-ups.c: standardize on "guesstimate", "guesstimation" spelling
  - drivers/blazer.c: standardize on "guesstimate", "guesstimation" spelling
  - docs/man/upscode2.txt, docs/nut.dict: docs/man/upscode2.txt, nut.dict: standardize on "guesstimate", "guesstimation" spelling
-



**2.643 2022-09-14 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac: comment that \_GNU\_SOURCE may be needed for strptime() detection
- configure.ac: comment that \_GNU\_SOURCE may be needed for strptime() detection
- ci\_build.sh, docs/Makefile.am, docs/man/Makefile.am, indent.sh, scripts/subdriver/gen-snmplib-subdriver.sh, scripts/subdriver/gen-usbhid-subdriver.sh, scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in, tools/nut-scanner/scan\_snmp.c: Replace "egrep" by "grep -E" in shell code - modern systems frown on the former
- configure.ac: move detection of TIME\_WITH\_SYS\_TIME to before we use it This should help find strptime() in particular on systems that have both time.h and sys/time.h files, and one does not include the other (e.g. Arch Linux).
- docs/config-prereqs.txt, docs/nut.dict: docs/config-prereqs.txt: detail Arch Linux package installation for a build agent
- docs/ci-farm-lxc-setup.txt, docs/nut.dict: docs/ci-farm-lxc-setup.txt: detail getting "pacman" and related tools on a Debian Linux host
- tests/NIT/nit.sh: add a BASH way to check port availability
- tests/NIT/nit.sh: typo fix looking in /proc/net/tcp
- tests/NIT/nit.sh: cosmetic: fix indentations botched by IDEs

**2.644 2022-09-12 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/documentation.txt: refer to NUT Configuration Examples book
- docs/nut.dict: update for nut-website::projects.txt refresh
- NEWS, drivers/apc-hid.c, scripts/upower/95-upower-hid.hwdb: drivers/apc-hid.c, NEWS, 95-upower-hid.hwdb: Support VID:PID = 0x051d:0x0004 [#1429]

**2.645 2022-09-08 Jim Klimov <jimklimov+nut@gmail.com>**

- ci\_build.sh: avoid wasting time on spellcheck attempts in broken environment
- NEWS: indent nested bullets of NUT for Windows items
- NEWS: nutdrv\_qx subdriver voltronic\_qs\_protocol accepts "V" and "H" dialects [#1623]
- drivers/nutdrv\_qx\_voltronic-qs.c: add support for "H protocol" [#1623] Thanks go to research and PoC by @saper-2 at <https://github.com/networkupstools/nut/issues/1623#issuecomment-1236329499>

**2.646 2022-09-06 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/main.c: retain "driver.parameter.override.XXX" (and ".default.XXX") for troubleshooting [#1279]
- drivers/libhid.c: log if we hit the "paranoia check" with inconsistent Max vs Min [#1512]
- drivers/nutdrv\_qx.c: qx\_initbattery(): initialize battery.packs and battery.voltage.low/high/nom if known always (not just if battery.charge or battery.runtime are not served) [#1279]
- drivers/main.c: retain "driver.parameter.override.XXX" (and ".default.XXX") for troubleshooting [#1279]
- drivers/libhid.c: log if we hit the "paranoia check" with inconsistent Max vs Min [#1512]

**2.647 2022-09-03 Jim Klimov <jim@jimklimov.com>**

- Jenkinsfile-dynamatrix: enable linux\+mingw cross builds as part of NUT baseline
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**2.648 2022-09-02 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS, drivers/powercom-hid.c: drivers/powercom-hid.c: fix UPS.Battery.ManufacturerDate to map to battery.mfr.date ... (not battery.date which is the maintenance/replacement date) Closes: [#1644](#)
- drivers/cps-hid.c: prefer mapping battery.mfr.date from UPS.Battery.ManufacturerDate if available [[#437](#)]
- drivers/usbhid-ups.c: date\_conversion\_fun(): comment the PDC standard formula for reference
- common/Makefile.am, common/strsep.c, configure.ac, include/str.h: Add fallback strsep() implementation (for Windows mingw builds) after [PR #1639](#)
- include/Makefile.am: fix merge error (duplicate code)

**2.649 2022-09-01 Jim Klimov <jimklimov+nut@gmail.com>**

- clients/upslog.c: adjust to Windows branch after [PR #1639](#)

**2.650 2022-08-31 Jim Klimov <jimklimov+nut@gmail.com>**

- UPGRADING: refer to collectd PR about int/size\_t/time\_t adaptation for NUT API consumers
- tools/nut-scanner/nut-scan.h: ensure useconds\_t is defined
- NEWS, UPGRADING: note public API header revision for NUT v2.8.1
- include/parseconf.h: ensure size\_t is defined
- clients/upsclient.h: ensure time\_t is defined
- clients/Makefile.am, include/Makefile.am, tools/nut-scanner/Makefile.am: {tools/nut-scanner,include,clients}/Makefile.am: comment include\_HEADERS as "Optionally deliverable as part of NUT public API"

**2.651 2022-08-29 Jim Klimov <jimklimov@gmail.com>**

- drivers/usb-common.h: Update usb-common.h Detect configure script error: Neither HAVE\_USB\_H nor HAVE\_LUSB0\_USB\_H is set for the WITH\_LIBUSB\_0\_1 build
- tools/nut-usbinfopl: Update nut-usbinfopl Detect configure script error: Neither HAVE\_USB\_H nor HAVE\_LUSB0\_USB\_H is set for the WITH\_LIBUSB\_0\_1 build
- tools/nut-usbinfopl: Update nut-usbinfopl Typo fix for `ifdef HAVE_USB_H` (libusb-0.1 header)
- drivers/usb-common.h: Update usb-common.h Typo fix for `ifdef HAVE_USB_H` (libusb-0.1 header)
- scripts/subdriver/gen-usbhid-subdriver.sh: Update gen-usbhid-subdriver.sh Old `-x generic` suggestion apparently became `-x explore` later in this timeline (also `-dl` to dump and exit after one data collection loop, without requiring a valid NUT\_STATEPATH).

**2.652 2022-08-29 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/hid-subdrivers.txt: remind about wire byte order vs. computer multi-byte word layout
  - docs/hid-subdrivers.txt: document USB HID report descriptor troubleshooting [[#1618](#)] Great thanks to @nbriggs for putting this together and practicing many times!
  - docs/hid-subdrivers.txt: mention disable\_fix\_report\_desc troubleshooting [[#1566](#)]
  - docs/hid-subdrivers.txt: add chapter on "Updating a subdriver"
  - docs/hid-subdrivers.txt: update chapter on gen-usbhid-subdriver.sh
  - docs/nut.dict: Update nut.dict for hid-subdrivers.txt
-

**2.653 2022-08-29 Cy Schubert <cy@FreeBSD.org>**

- clients/upslog.c: upslog: Messages should go to syslog Messages to stderr are unreliable when output to the console and mesg is n (0600). For example, the following will disallow console output to UID uucp. # mesg < /dev/console is n # mesg < /dev/ttyv0 is n # ls -l /dev/console /dev/ttyv0 crw----- 1 root wheel 0x7 Aug 29 14:03 /dev/console crw----- 1 root wheel 0x46 Aug 29 12:32 /dev/ttyv0 #

**2.654 2022-08-28 Jim Klimov <jimklimov+nut@gmail.com>**

- tools/nut-usbinfo.pl: build against mingw-w64-x86\_64-libusb-win32 as libusb-0.1 variant
- drivers/usb-common.h: build against mingw-w64-x86\_64-libusb-win32 as libusb-0.1 variant
- m4/nut\_check\_libusb.m4: detect mingw-w64-x86\_64-libusb-win32 as libusb-0.1 variant
- scripts/subdriver/gen-usbhid-subdriver.sh: only ask for VENDORID and PRODUCTID interactively if not provided via CLI args
- scripts/subdriver/gen-usbhid-subdriver.sh: update instructions
- docs/nut.dict: add "sstate"
- m4/nut\_check\_libusb.m4: when on Windows, prefer libusb-0.1 [#1507]
- configure.ac, drivers/libusb0.c: fix detection of strtoul() and fallback strtoull() implem
- NEWS: sstate should always PING a driver (even if last known as stale) [#1626]
- server/sstate.c: sstate\_dead(): always PING a driver (even if last known as stale) [#1626]

**2.655 2022-08-27 Jim Klimov <jimklimov+nut@gmail.com>**

- common/common.c: get\_libname\_in\_dir(): check for exact filename match (not just common start of string)
- drivers/usbhid-ups.c: cosmetic fixes
- drivers/usbhid-ups.c: account interrupt\_pipe\_EIO\_count for suggestions when reconnecting [#1295]
- drivers/usbhid-ups.c: if reconnecting with use\_interrupt\_pipe mode, suggest to use pollonly [#1295]
- drivers/usbhid-ups.c: only report "Closing comm\_driver previous handle" when we do so, and invalidate it too [#1627]
- drivers/dstate.c, server/sstate.c: server/sstate.c: log DATAOK/DATASTALE processing

**2.656 2022-08-25 Jim Klimov <jimklimov@gmail.com>**

- docs/nut.dict: Update with key words from NUT for Windows effort for nut-website

**2.657 2022-08-25 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/Windows/README: document building shared "libnetsnmp-40.dll" Thanks to Denis Serov for the hints posted at <https://alioth-lists.debian.net/pipermail/nut-upsdev/2016-April/007171.html>
  - tests/NIT/nit.sh: do not fail "make check-NIT" started by root just because daemons drop privileges [#1568]
  - docs/config-prereqs.txt: update to OpenBSD 6.5 due to JDK 11+ for Jenkins agents, and update other OS instructions
-

**2.658 2022-08-24 Jim Klimov <jimklimov@gmail.com>**

- scripts/python/module/PyNUT.py.in: Update PyNUT.py.in Add a note on `PyNUTError("Always a string")` to file-heading changelog

**2.659 2022-08-24 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/python/module/test\_nutclient.py.in: allow testing against UPSD on a remote host
- scripts/python/module/test\_nutclient.py.in: fail if we could RunUPSCCommand/SetUPSVar/DeviceLogin when we should not have [#1589]
- scripts/python/module/README: typo fixes
- scripts/python/module/PyNUT.py.in, scripts/python/module/README: scripts/python/module/PyNUT.py.in: raise `PyNUTError()` from strings not byte arrays [#1589]

**2.660 2022-08-24 Jim Klimov <jim@jimklimov.com>**

- NEWS: RFC 9271 published 2022-08-10

**2.661 2022-08-23 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/python/module/test\_nutclient.py.in: ListClients-dummy-after: check `b"dummy"` (not a string) as dict key [#1589]
  - scripts/python/module/test\_nutclient.py.in: thanks to `"ex = str(sys.exc_info()[1])"` we should check strings, not byte arrays [#1589]
  - scripts/python/module/test\_nutclient.py.in: account unexpected failures to detect actual errors [#1589]
  - scripts/python/module/PyNUT.py.in: raise `PyNUTError()` with standard protocol strings; leave layman text to debug printouts [#1589]
  - scripts/python/module/PyNUT.py.in: raise `PyNUTError()` with standard protocol strings; leave layman text to debug printouts [#1589]
  - tools/nut-scanner/nut-scan.h: avoid including private `"timehead.h"` in public header [#1593]
  - tools/nut-scanner/nut-scan.h: prefer co-located `"nutscan-*.h"` in public header [#1593]
  - tools/nut-scanner/nut-scan.h, tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c: tools/nut-scanner/nut-scan.h: avoid including private `"nut_stdint.h"` in public header [#1593]
  - scripts/Windows/build-mingw-nut.sh: report completion of configure/build/install phases
  - include/Makefile.am, clients/Makefile.am: rectify distributon of `parseconf.h` [#1593]
  - tools/nut-scanner/nut-scan.h: avoid including private `"config.h"` in public header [#1593] In-tree consumers of this file include `"common.h"` first which in turn includes `"config.h"` first.
  - tools/nut-scanner/nutscan-ip.c, tools/nut-scanner/nutscan-ip.h: tools/nut-scanner/nutscan-ip.{c,h}: avoid including private `"common.h"` in public header [#1593]
  - docs/new-drivers.txt, docs/nut.dict: docs/new-drivers.txt: update documentation for `TYPE_FD_SER` [#1593]
  - tools/nut-scanner/nut-scan.h: avoid including private `"timehead.h"` in public header [#1593]
  - tools/nut-scanner/nut-scan.h: prefer co-located `"nutscan-*.h"` in public header [#1593]
  - tools/nut-scanner/nut-scan.h, tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c: tools/nut-scanner/nut-scan.h: avoid including private `"nut_stdint.h"` in public header [#1593]
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- include/Makefile.am, clients/Makefile.am: rectify distributon of parseconf.h [#1593]
- tools/nut-scanner/nut-scan.h: avoid including private "config.h" in public header [#1593] In-tree consumers of this file include "common.h" first which in turn includes "config.h" first.
- tools/nut-scanner/nutscan-ip.c: tools/nut-scanner/nutscan-ip.{c,h}: avoid including private "common.h" in public header [#1593]
- clients/nutclientmem.cpp: include config.h first
- drivers/serial.c, drivers/serial.h: drivers/serial.{h,c}: relocate ser\_flush\_io() to ser\_flush\_in() to match logical relation and documentation ordering [#1593]
- clients/nutclientmem.cpp: include config.h first

## 2.662 2022-08-22 Jim Klimov <jimklimov@gmail.com>

- clients/nutclient.cpp: Update nutclient.cpp include "config.h" first

## 2.663 2022-08-21 Jim Klimov <jimklimov+nut@gmail.com>

- clients/Makefile.am: separate delivery of C++ headers - do it only if we deliver the libs [#1598]
- tests/NIT/nit.sh: warn to have prepared a listening NUT\_PORT before asking for individual test cases
- ci\_build.sh: refactor with autogen\_get\_CONFIGURE\_SCRIPT and configure\_CI\_BUILDDIR for better out-of-tree builds
- appveyor.yml: shorter lines in install proto area report
- scripts/Windows/dllldd.sh: less ominous warning message
- appveyor.yml: fix shell syntax for YAML transport
- scripts/Windows/dllldd.sh: consult COMPILER\_PATHS for C++ libs [#1603]
- m4/nut\_check\_libnetsnmp.m4, tools/nut-scanner/Makefile.am: tools/nut-scanner/Makefile.am: fix referencing of libnetsmp (static) build flags, so shared libnutscan.dll can be built [#1603]
- ci\_build.sh: pass PARMAKE\_FLAGS to build-mingw-nut.sh
- ci\_build.sh: require successful autogen for cross-mingw builds
- ci\_build.sh: refactor with autogen\_get\_CONFIGURE\_SCRIPT and configure\_CI\_BUILDDIR for better out-of-tree builds
- tools/nut-scanner/Makefile.am: enable shared DLL builds for C++ libraries [#1603]
- clients/Makefile.am: enable shared DLL builds for C++ libraries [#1603]
- Jenkinsfile-dynamatrix: failure is no longer an option in linux\+mingw Windows cross-builds
- appveyor.yml: "find" all filenames we would archive to 7z artifact from the install proto area
- scripts/Windows/build-mingw-nut.sh: use different CXXFLAGS from CFLAGS (append vs external settings)
- appveyor.yml: archive any NUT-for-Windows\*.7z tarballs
- clients/Makefile.am: separate delivery of C++ headers - do it only if we deliver the libs [#1598]
- common/snprintf.c: added a FIXME for dopr("%p") on some platforms
- include/timehead.h: fence with "extern C"
- clients/nutclientmem.cpp: avoid (mingw) conflict for C++ builds with fallback gmtime\_r() etc that C++ code does not even use [#1594]

- clients/nutclient.cpp: avoid (mingw) conflict for C\+ builds with fallback gmtime\_r() etc that C\+ code does not even use [#1594]
- clients/Makefile.am: add libnutclient.la to lib\_LTLIBRARIES also on Windows now so it gets installed [#1594, #1598] Closes: #1598
- clients/Makefile.am: bump semver of libnutclient due to added TcpClient::setDebugConnect(bool) [#1594]
- clients/nutclient.cpp, clients/nutclient.h: clients/nutclient.cpp: internal::Socket::connect(): make debug noise optional
- tests/NIT/nit.sh: warn to have prepared a listening NUT\_PORT before asking for individual test cases

#### 2.664 2022-08-21 Cy Schubert <cy@FreeBSD.org>

- NEWS, clients/upslog.c, docs/man/upslog.txt: upslog: Add support for multiple UPSs upslog is a utility that logs UPS status at regular intervals, specified by the -i option. Unfortunately upslog supports only one UPS. For sites that need to monitor multiple UPSs the options are to cobble an rc script for each or doctor up the nut\_upslog.in script to support cloning of the script. Unfortunately an rc script capable of being cloned would become the source of more PRs and would require significantly more technical documentation that by itself might become confusing for the average system administrator. Therefore a new -m option is added to support multiple UPSs using the same invocation of upslog. The patch parses a -m option, polling each ups listed.

#### 2.665 2022-08-20 Jim Klimov <jimklimov+nut@gmail.com>

- tests/NIT/Makefile.am: check-NIT-devel: become EXEEXT-aware
- tests/NIT/nit.sh: report if skipping cppnit because absent
- clients/nutclient.cpp: Socket::connect(): add debug
- tests/NIT/Makefile.am: check-NIT-devel: become EXEEXT-aware
- tests/NIT/nit.sh: report if skipping cppnit because absent
- tests/Makefile.am: Revert "tests/Makefile.am: make POSIX style short names aliases for HAVE\_WINDOWS .exe targets" This reverts commit b3d36d9a81f42ca6e2cae15e04e54f5ce6ec80f6.
- tests/Makefile.am: make POSIX style short names aliases for HAVE\_WINDOWS .exe targets
- clients/nutclient.cpp: Socket::connect(): add debug
- clients/nutclient.cpp: port W32\_NETWORK\_CALL\_OVERRIDE code from upsclient.c

#### 2.666 2022-08-19 Kubisz Mariusz <mmzk987@gmail.com>

- drivers/blazer.c: Blazer: Accept the value of "idleload" equal to zero It allows setting the "idleload" parameter equal to zero

#### 2.667 2022-08-19 Jim Klimov <jimklimov@gmail.com>

- appveyor.yml: Update appveyor.yml Add mingw-w64-x86\_64-cppunit to check cppnit et al
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**2.668 2022-08-19 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac: NUT\_REPORT\_FEATURE the HAVE\_CXX11 and HAVE\_CPPUNIT aspects
- clients/nutclient.cpp: port connect() WIN32 code from upscclient.c
- docs/config-prereqs.txt: document how to get cppunit in Windows MSYS2 [#1594]
- appveyor.yml: tarball built NUT binaries marked as x86\_64 (maybe do i686 later?)
- configure.ac: NUT\_REPORT\_FEATURE the HAVE\_CXX11 and HAVE\_CPPUNIT aspects
- configure.ac, m4/nut\_check\_libnetsnmp.m4, tools/nut-scanner/Makefile.am: introduce WITH\_SNMP\_STATIC flag
- drivers/riello\_ser.c: fix whitespace in WIN32 codepath
- server/conf.c: pedantically handle a case of VALID\_FD
- server/conf.c: pedantically handle a case of ERROR\_FD
- drivers/netxml-ups.c: pedantically handle a case of ERROR\_FD
- drivers/dstate.c: no need to cast sockfd to int anymore, we adhere to TYPE\_FD (or fail build if not)
- clients/nutclient.cpp: err on the safe side, check "ifdef" before we "define" WINAPI-compatibility macros
- clients/nutclient.cpp: err on the safe side, check "ifdef" before we "define" WINAPI-compatibility macros
- drivers/apcupsd-ups.c: convert to use of TYPE\_FD\_SOCKET and its macros
- common/Makefile.am: only add wincompat.{c,h} to libcommon\* if HAVE\_WINDOWS in the build
- clients/upssched.c: try\_connect(): further reduce discrepancy of WIN/non-WIN codepaths
- clients/upsmon.h: clients/upsmon.{c,h}: rename ST\_CONNECTED to ST\_CLICONNECTED - WIN32 cleanup
- clients/upsmon.c, clients/upsmon.h: clients/upsmon.{c,h}: rename ST\_CONNECTED to ST\_CLICONNECTED ST\_CONNECTED is defined for WIN32 DDE (Dynamic Data Exchange) in ddeml.h Renaming avoids the conflict in easiest manner
- clients/upsmon.c, clients/upsmon.h: clients/upsmon.{c,h}: rename ST\_CONNECTED to ST\_CLICONNECTED ST\_CONNECTED is defined for WIN32 DDE (Dynamic Data Exchange) in ddeml.h Renaming avoids the conflict in easiest manner
- NEWS: group "NUT for Windows" bullet points

**2.669 2022-08-18 Jim Klimov <jimklimov@gmail.com>**

- appveyor.yml: Update appveyor.yml Hush back down the bundle-install
  - Makefile.am: Update Makefile.am Fix detection of cgiexecdir; comments on dirs involved here.
  - appveyor.yml: Update appveyor.yml
  - appveyor.yml: Update appveyor.yml archive config.log pass filename version differently
-



**2.670 2022-08-18 Jim Klimov <jimklimov+nut@gmail.com>**

- ci\_build.sh: restructure error-catching in default BUILD\_TYPE="" case
  - drivers/snmp-ups.c: err on the safe side with "long" value and "int" arg of nut\_snmp\_walk()
  - scripts/Windows/dllldd.sh: ignore zero-sized files under DESTDIR (bad copies etc)
  - scripts/Windows/dllldd.sh: one hit under DESTDIR suffices
  - scripts/Windows/build-mingw-nut.sh: tell DESTDIR to dllldd() search code
  - scripts/Windows/dllldd.sh: ignore some more known system DLLs
  - Makefile.am: tell scripts/Windows/dllldd.sh to check under DESTDIR [#1492]
  - Makefile.am: Revert "Makefile.am: install freshly built libups\*.dll libnut\*.dll into non-binary dirs from the bin [#1492]" This reverts commit b39e3a3d2d1652ef23e82bee2c2dc4d638751b5a.
  - scripts/Windows/dllldd.sh: rearrange to probe for each file in all possible locations; check under DESTDIR if provided
  - scripts/Windows/dllldd.sh: comment about not-searching for our own build products
  - m4/nut\_check\_python.m4: inform if python version was not suitable [#1583]
  - m4/nut\_check\_python.m4: take "no" for an answer [#1583]
  - m4/nut\_check\_python.m4: simplify PYTHON\*\_VERSION\_REPORT to avoid brackets from m4 code [#1583]
  - m4/nut\_check\_python.m4: constrain python{,2,3} versions - check that what is found is in range [#1583]
  - scripts/Windows/dllldd.sh: typo fix
  - scripts/Windows/build-mingw-nut.sh: handle cgi-bin dir too
  - appveyor.yml: typo fix
  - Makefile.am: install freshly built libups\*.dll libnut\*.dll into non-binary dirs from the bin [#1492]
  - m4/nut\_check\_python.m4: inform if python version was not suitable [#1583]
  - m4/nut\_check\_python.m4: take "no" for an answer [#1583]
  - m4/nut\_check\_python.m4: simplify PYTHON\*\_VERSION\_REPORT to avoid brackets from m4 code [#1583]
  - m4/nut\_check\_python.m4: try to fix Windows MSYS2 "buggy" path for python{,2,3} site-packages [#1584]
  - m4/nut\_check\_python.m4: comment about Windows MSYS2 "buggy" path for python{,2,3} site-packages [#1584]
  - m4/nut\_check\_python.m4: constrain python{,2,3} versions - check that what is found is in range [#1583]
  - Makefile.am: install-win-bundle-thirdparty: fix again detection of presence of cgiexecdir [#1492]
  - appveyor.yml: archive installed artifacts with 7z (zip format does not do sym/hard-links)
  - INSTALL.nut: update notes of NUT for Windows building/installing - that CI would publish at least archives
  - appveyor.yml: reword install step so cmd⇒bash likes it
  - INSTALL.nut: update notes of NUT for Windows building/installing - current state of the art
  - ci\_build.sh, scripts/Windows/build-mingw-nut.sh: ci\_build.sh \+ scripts/Windows/build-mingw-nut.sh: suggest use of INSTALL\_WIN\_BUNDLE to call "make install-win-bundle"
  - ci\_build.sh: suggest use of "make install-win-bundle" in default BUILD\_TYPE="" case
  - ci\_build.sh: restructure error-catching in default BUILD\_TYPE="" case
  - appveyor.yml: build meaningful base dirname into downloadable zip bundle
-

**2.671 2022-08-18 Jim Klimov <jim@jimklimov.com>**

- appveyor.yml: Update appveyor.yml Display ccache stats after tarballing, to see them better. And still after build in case tests fail. (TODO: on any outcome - postprocessing tag?) Do not shell-trace tarballing routine.

**2.672 2022-08-18 Arnaud Quette <ArnaudQuette@eaton.com>**

- drivers/snmp-ups.c: snmp-ups: fix alarm processing only walk the number of present alarms, instead of INT\_MAX, to avoid potential blocking

**2.673 2022-08-17 Jim Klimov <jimklimov@gmail.com>**

- appveyor.yml: no time! No time: it outputs /\^sys/ - fatal for powershell (or appveyor?) console scanner
- appveyor.yml: try harder to avoid AppVeyor/Powershell induced faults
- appveyor.yml: try to avoid AppVeyor/PowerShell complaints about presence of stderr output

**2.674 2022-08-17 Jim Klimov <jimklimov+nut@gmail.com>**

- ci\_build.sh: introduce CI\_SKIP\_CHECK support to help split CI jobs into stages
  - ci\_build.sh: comment away DMF-specific check\_gitignore() calls for now - they refer to BUILD\_TGT not (yet) defined in this codepath
  - ci\_build.sh: clarify report of "Using ccache via PATH. ..."
  - Makefile.am: install-win-bundle-thirdparty: cgiexecdir may be not installed (others too technically... but unlikely a valid situation) [#1492]
  - scripts/Windows/dllldd.sh: drop diff markup chars
  - Makefile.am: install-win-bundle-thirdparty: mute the big logic block [#1492]
  - Makefile.am: install-win-bundle-thirdparty: handle cgiexecdir if present [#1492]
  - Makefile.am: force-hardlink installed DLLs into secondary dirs (overwrite if older link/copy exists)
  - scripts/Windows/dllldd.sh: cripts/Windows/dllldd.sh: optimize by filtering away more well-known Windows-provided DLLs
  - scripts/Windows/dllldd.sh: refactor dlllddir() to only look at any DLL once (MSYS2 has a huge inter-dependency tree)
  - scripts/Windows/dllldd.sh: optimize to check if base dir for planned listing exists
  - scripts/Windows/dllldd.sh: not all shells seen auto-expand "{bin,lib}" notation
  - scripts/Windows/dllldd.sh: prefer objdump over ldd as more reliable (especially when many files are queried and one hit suffices for script logic)
  - scripts/Windows/dllldd.sh: optimize by feeding many PE files to same ldd/objdump command (where supported)
  - scripts/Windows/dllldd.sh: optimize by filtering away well-known Windows-provided DLLs
  - scripts/Windows/dllldd.sh: subshell dllldd() with C locale [#1492]
  - scripts/Windows/dllldd.sh: refactor dlllddir() [#1492]
  - appveyor.yml: make check and install quieter
  - appveyor.yml: "make install-win-bundle" and save artifacts with Bundle of binary files and FOSS dependencies of NUT for Windows [#1492, #1552]
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- scripts/Windows/build-mingw-nut.sh: refactor to "make install-win-bundle" target recipe [#1492]
- Makefile.am: define "make install-win-bundle" target recipe [#1492]
- scripts/Windows/build-mingw-nut.sh, scripts/Windows/dllldd.sh: scripts/Windows/dllldd.sh: transplant dlllddir() from build-mingw-nut.sh [#1492]
- scripts/Windows/dllldd.sh: fallback support for MSYS2 path search [#1492]
- scripts/Windows/build-mingw-nut.sh, scripts/Windows/dllldd.sh: Split scripts/Windows/dllldd.sh as a separately usable shell tool or lib [#1492]
- appveyor.yml: introduce CI\_SKIP\_CHECK support to help split CI jobs into stages
- ci\_build.sh: introduce CI\_SKIP\_CHECK support to help split CI jobs into stages
- ci\_build.sh: comment away DMF-specific check\_gitignore() calls for now - they refer to BUILD\_TGT not (yet) defined in this codepath
- appveyor.yml: try harder to save ccache for next builds
- appveyor.yml: add after\_build stage to report ccache stats
- NEWS, docs/nut.dict: NEWS: Proclaim AppVeyor CI tests of NUT for Windows [#1552]
- ci\_build.sh: clarify report of "Using ccache via PATH. . ."
- appveyor.yml: Assorted stats: "du" just the MSYS tree, without looking in other filesystems like /proc
- appveyor.yml: dispose of "ps" in favor of "cmd" to invoke MSYS2 shell scripts (too much hassle with wording on stderr)
- appveyor.yml: pre-create /var/cache/pacman/pkg on newly made workers [#1552]
- appveyor.yml: Only cache packages with appveyor.yml [#1552]
- appveyor.yml: Introduce appveyor.yml to automate NUT for Windows builds [#1552]

#### 2.675 2022-08-16 Jim Klimov <jimklimov+nut@gmail.com>

- NEWS: fall back to /usr/local/. . . if libltdl was not found by default [#1577]
- m4/nut\_check\_libltdl.m4: fall back to /usr/local/. . . if no custom CFLAGS were specified and libltdl was not found by default [#1577]
- scripts/python/module/README: typo fix
- scripts/python/module/README: document GetUPSNames() [#746, #549]
- scripts/python/module/README: clarify about "str" vs "byte" strings (hassle of Python 3) [#746]

#### 2.676 2022-08-15 Jim Klimov <jimklimov+nut@gmail.com>

- scripts/python/module/PyNUT.py.in: refactor with GetUPSNames() for py2/py3 compatibility [#549, #746]
- scripts/python/module/PyNUT.py.in: fix exception in SetRWVar(): strip EOL
- tests/NIT/nit.sh: rearrange handling (and messaging) for DEBUG\_SLEEP

#### 2.677 2022-08-14 Jim Klimov <jimklimov@gmail.com>

- NEWS: snmp-ups updated for invalid negative values [#1558]
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**2.678 2022-08-14 Jim Klimov <jimklimov+nut@gmail.com>**

- ci\_build.sh: consider --with-nut-scanner option [#1560]
- docs/packager-guide.txt: add suggestions for nut-scanner [#1560]
- UPGRADING: recommend packagers to "configure --with-all" by default
- NEWS, UPGRADING: announce "configure --with-nut-scanner" [#1560]
- configure.ac, tools/nut-scanner/Makefile.am: configure.ac: add --with-nut-scanner (also as part of --with-all) Closes: #1560
- m4/nut\_arg\_with.m4: escape dashes into underscores for valid shell var names
- configure.ac: clarify --with-all help message
- docs/config-prereqs.txt: mention that "MinGW UCRT x64" environment seems to also work for NUT builds
- docs/man/usbhid-ups.txt: update with known illumos support
- docs/man/usbhid-ups.txt: add a toggle to disable\_fix\_report\_desc [#1566]
- drivers/apc-hid.c, drivers/cps-hid.c, drivers/usbhid-ups.c, drivers/usbhid-ups.h: usbhid-ups, cps-hid, apc-hid: add a toggle to disable\_fix\_report\_desc [#1566]
- NEWS: openssl-3.0.x supported with openssl-1.1.0 support code from NUT v2.8.0 [#1547]
- include/common.h: update comments to document TYPE\_FD\* macros [#1556]
- drivers/dstate.c: whitespace and typo fixes (cosmetic) [#1556]
- UPGRADING: document changes for TYPE\_FD\* in headers (Windows branch) [#1556]
- clients/upssched.c: start\_daemon(): further refactor to simplify code [#1556]
- INSTALL.nut: refer to GitHub project regarding NUT for Windows [#5]

**2.679 2022-08-14 Jim Klimov <jim@jimklimov.com>**

- scripts/python/app/NUT-Monitor-py3qt5.in: fix \_\_find\_icon\_file()... to look also for package-installed icons (in OS location) Thanks to @Perlovka for noticing and proposing a fix, and to @lukej for confirming it as correct. Closes: #1567
- scripts/Solaris/nut-driver.xml.in, scripts/Solaris/nut-server.xml.in, scripts/Solaris/svc-nut-server.in: scripts/Solaris/nut-server\*, nut-driver.xml: create NUT\_RUN\_DIR before starting the driver (e.g. at boot) [#1564]
- configure.ac, scripts/Solaris/Makefile.am: introduce WITH\_SOLARIS\_INIT and depend WITH\_SOLARIS\_SMF on whether we want packaging for Solaris/illumos [#1554]
- NEWS: update for Solaris/illumos packaging and SMF service support [#1554, #1564]

**2.680 2022-08-13 Jim Klimov <jim@jimklimov.com>**

- NEWS, docs/nut.dict: NEWS: client/nutclient{,mem}.h: add listDeviceClients() and deviceGetClients(dev)
  - tests/cpptest-client.cpp: cover device login and getting list of clients
  - clients/nutclient.cpp, clients/nutclient.h, clients/nutclientmem.cpp, clients/nutclientmem.h: client/nutclient{,mem}.h: add listDeviceClients() and deviceGetClients(dev)
-

**2.681 2022-08-12 Jim Klimov <jimklimov+nut@gmail.com>**

- include/common.h, server/nut\_ctype.h, server/stype.h, server/upsd.c: Introduce also TYPE\_FD\_SOCKET for sockets [#1556]
- clients/upssched.c, clients/upssched.h, common/common.c, drivers/apcsmart.c, drivers/belkinunv.c, drivers/clone-outlet.c, drivers/clone.c, drivers/dstate.c, drivers/dstate.h, drivers/dummy-ups.c, drivers/libshut.c, drivers/main.c, drivers/main.h, drivers/serial.c, include/common.h, server/sstate.c, server/sstate.h, server/stype.h, server/upsd.c, server/upstype.h, tools/nut-scanner/scan\_eaton.c: Refactor TYPE\_FD [#1556]
- drivers/serial.c: refactor ser\_set\_\*() and ser\_get\_\*() to define once, implement per target (WIN32 or not)
- include/common.h: separate definitions of TYPE\_FD, ERROR\_FD, VALID\_FD() macros for usual file descriptors vs. types for serial port work [#1556]
- common/common.c, drivers/belkinunv.c, drivers/libhid.h, drivers/libshut.h, drivers/serial.c, drivers/serial.h, include/common.h, server/upsd.c, tools/nut-scanner/scan\_eaton\_serial.c: Rename platform-abstracted serial/SHUT file descriptor macro TYPE\_FD ⇒ TYPE\_FD\_SER [#1556]
- server/upsd.c: ups\_available(): fix reporting "Data stale" for an UPS that never connected (WIN32 only) [#1477]
- server/upsd.c: mainloop(): report that we retry connecting to driver socket and what the outcome was (at all - WIN32)
- server/upsd.c: mainloop(): report that we retry connecting to driver socket and what the outcome was more clearly
- drivers/serial.c: convert from ERROR\_FD equality to !VALID\_FD()
- tools/nut-scanner/scan\_xml\_http.c: fix whitespace
- tools/nut-scanner/scan\_usb.c: tools/nut-scanner/scan\_snmp.c: ifdef-scope nut\_usb\_get\_busses() vs nut\_usb\_busses for WIN32 or not
- tools/nut-scanner/scan\_eaton\_serial.c: convert from ERROR\_FD equality to VALID\_FD()

**2.682 2022-08-12 Jim Klimov <jim@jimklimov.com>**

- docs/net-protocol.txt: typo fix "LIST CLIENTS" ⇒ "LIST CLIENT" [#549]
- NEWS, docs/nut.dict: NEWS: report fixed PyNUT::ListClients() [#549] and added DeviceLogin()
- scripts/python/module/test\_nutclient.py.in: report end of script aka PyNUT instance teardown
- tests/NIT/nit.sh: test python DeviceLogin() and ListClients() methods with upsmon-role credentials
- scripts/python/module/PyNUT.py.in: extend PASSWORD handling for values with spaces
- scripts/python/module/test\_nutclient.py.in: add DeviceLogin() method
- scripts/python/module/README: add DeviceLogin() method
- scripts/python/module/PyNUT.py.in: add DeviceLogin() method
- scripts/python/module/PyNUT.py.in: bump version for fixed ListClients()
- scripts/python/module/test\_nutclient.py.in: confirm that ListClients() fails for unknown device
- scripts/python/module/test\_nutclient.py.in: report more visibly if we have a real result or an exception
- scripts/python/module/test\_nutclient.py.in: test ListClients() [#549]
- scripts/python/module/PyNUT.py.in: fix ListClients() \* to call the right protocol command Closes: #549 \* handle the begin/end messages correctly to work at all \* make ListClients() usable with "ups==None" \* parse "CLIENT ups host" in correct order

**2.683 2022-08-12 Arnaud Quette <ArnaudQuette@eaton.com>**

- drivers/ietf-mib.c: snmp-ups: flag invalid negative values for IETF MIB

**2.684 2022-08-11 Jim Klimov <jimklimov+nut@gmail.com>**

- tools/nut-scanner/nutscan-ip.h: fix type of include file/markup
- server/upsd.c: fix whitespace
- server/sstate.c: fix whitespace
- drivers/belkinunv.c: convert from ERROR\_FD equality to !VALID\_FD()
- drivers/apcsmart.c: convert from ERROR\_FD equality to !VALID\_FD()
- INSTALL.nut: clarify that **currently** Win32 packages are not made regularly
- common/snprintf.c: whitespace fix
- configure.ac: fix whitespace
- configure.ac: initially set LIBREGEX\_LIBS="" so it is defined
- scripts/Windows/README: document current (unfinished) prerequisite cross-build for avahi
- common/common.c: allow to find libraries via PATH (WIN32 only) [#1482]

**2.685 2022-08-10 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/Windows/README: uncomment iconv as useful for libgd directly
  - scripts/Windows/README: document hiccup with libgd in 32-bit mode
  - scripts/Windows/build-mingw-nut.sh: export valid CXX for good measure
  - scripts/Windows/README: move net-snmp instruction to be after openssl, to take advantage of its presence
  - scripts/Windows/README: clarify that xmlto (asciidoc) is needed for full libneon build, or how to skip installing docs
  - scripts/Windows/README: un-hide xz and libxml2 (needed for libneon) instructions
  - scripts/Windows/build-mingw-nut.sh: install WIN32 libs near relevant executable after all [#1482]
  - docs/nut.dict: Update docs/nut.dict
  - NEWS: changed get\_libname() behavior and extended use-case in nut-scanner for NUT v2.8.1
  - docs/nut.dict: Update docs/nut.dict
  - tools/nut-scanner/nutscan-init.c: fallback to plain "libusb" in either case (0.1 or 1.0 not found)
  - tools/nut-scanner/nutscan-init.c: fall back to nutscan\_load\_\*() unresolved paths to library names, native implem of lt\_dlopen() may do a better job [#805]
  - common/common.c: get\_libname(): prefer LD\_LIBRARY\_PATH\_(32\64) firstmost [#805]
  - common/common.c: get\_libname(): prefer LD\_LIBRARY\_PATH first [#805]
  - common/common.c: fix whitespace
  - NEWS: changed get\_libname() behavior and extended use-case in nut-scanner for NUT v2.8.1
-

- tools/nut-scanner/nutscan-init.c: fall back to nutscan\_load\_\*() unresolved paths to library names, native implem of lt\_dlopen() may do a better job [#805] - for WIN32
- tools/nut-scanner/nutscan-init.c: fall back to nutscan\_load\_\*() unresolved paths to library names, native implem of lt\_dlopen() may do a better job [#805]
- tools/nut-scanner/nutscan-init.c: fallback to plain "libusb" in either case (0.1 or 1.0 not found)
- scripts/Windows/build-mingw-nut.sh: we now allow to find libraries near the current NUT executable (../lib) on WIN32, so install all third-party deps there once [#1482]
- common/common.c, include/common.h: common/common.c: allow to find libraries near the current NUT executable (../lib) on WIN32 with PATH\_LIB [#1482]
- common/common.c: allow to find libraries near the current NUT executable (../lib) on WIN32 [#1482]
- common/common.c: get\_libname(): prefer LD\_LIBRARY\_PATH\_(32\64) firstmost [#805]
- common/common.c: get\_libname(): prefer LD\_LIBRARY\_PATH first [#805]
  - for WIN32 (with ";" separator)
- common/common.c: get\_libname(): prefer LD\_LIBRARY\_PATH first [#805]
- common/common.c: fix whitespace

## 2.686 2022-08-09 Jim Klimov <jimklimov+nut@gmail.com>

- scripts/Solaris/Makefile.am: do not install Solaris init files uninvited [#1488]
- scripts/Windows/build-mingw-nut.sh: typo fix
- Jenkinsfile-dynamatrix: allow 32-bit builds for cross-windows-mingw-32
- scripts/Solaris/Makefile.am: fix automake conditional syntax
- clients/upssched.c: avoid type comparison warnings on 32-bit WIN32 builds [#1478]
- common/strptime.c: avoid type range limit warnings on 31-bit builds
- scripts/Windows/build-mingw-nut.sh: implement recursive find-and-copy of DLLs needed by NUT binaries into the nut\_install tree [#1492]
- scripts/Solaris/Makefile.am: do not install Solaris init files uninvited [#1488]
- scripts/Windows/README: rearrange chapter on building NUT itself; mention ci\_build.sh integration
- scripts/Windows/README: document cross-building openssl for NUT and for libneon
- scripts/Windows/README: clarify build vs install of zlib(-devel)
- scripts/Windows/README: keep two blank lines between component-recipe chapters

## 2.687 2022-08-06 Jim Klimov <jimklimov+nut@gmail.com>

- ci\_build.sh, scripts/Windows/README: ci\_build.sh: refactor BUILD\_TYPE=cross-windows-mingw\* support
-



**2.688 2022-08-05 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/Windows/README: document custom cross-build of libneon
- scripts/Windows/README: define ARCH-dependent PKG\_CONFIG\_PATH by default
- scripts/Windows/README: comments about building in WSL2-provided Ubuntu environment
- scripts/Windows/README: clarify comments for pthread custom build (not needed with modern mingw delivery)
- scripts/Windows/README: document the mess of static-only net-snmp builds (typo fix)
- scripts/Windows/README: fix prompt markup to friendlier copy-paste; use variables for ARCHLESS-download and ARCH-build locations

**2.689 2022-08-01 Jim Klimov <jimklimov+nut@gmail.com>**

- tests/NIT/nit.sh: testcase\_upsd\_allow\_no\_device(): noisy listing should not be default At least, it is likely the root cause of faults was the busy NUT\_PORT and not some missing content in the config file, after all.
- tests/NIT/nit.sh: testcase\_upsd\_allow\_no\_device(): noisy listing should not be default At least, it is likely the root cause of faults was the busy NUT\_PORT and not some missing content in the config file, after all.

**2.690 2022-08-01 Arnaud Quette <ArnaudQuette@eaton.com>**

- drivers/mge-mib.c: Fix case for EATON manufacturer This must be upper case to avoid duplicate discoveries Closes: IPMPROG-4489 (cherry picked from commit a10f5967154e6c6d2dfa53975de6f874b9966804)

**2.691 2022-07-31 Jim Klimov <jimklimov@gmail.com>**

- docs/nut.dict: Update nut.dict Add MinGW spelling for a quote

**2.692 2022-07-30 Jim Klimov <jimklimov@gmail.com>**

- tests/NIT/nit.sh: isBusy\_NUT\_PORT() should not block tests when /proc/net/tcp{,6} is usable and says port is free
  - tests/NIT/nit.sh: isBusy\_NUT\_PORT() should not block tests when tools to check occupied ports are not available
  - tests/NIT/nit.sh: consult isBusy\_NUT\_PORT() to pick an available port
  - tests/NIT/nit.sh: add isBusy\_NUT\_PORT()
  - tests/NIT/nit.sh: typo fix in report\_NUT\_PORT()
  - tests/NIT/nit.sh: troubleshoot testcase\_upsd\_allow\_no\_device() - tell exit-code of upsd
  - tests/NIT/nit.sh: troubleshoot testcase\_upsd\_allow\_no\_device()
  - server/upsd.c: report "Found %d UPS defined in ups.conf" upon start
  - tests/NIT/nit.sh: isBusy\_NUT\_PORT() should not block tests when /proc/net/tcp{,6} is usable and says port is free
  - tests/NIT/nit.sh: isBusy\_NUT\_PORT() should not block tests when tools to check occupied ports are not available
  - tests/NIT/nit.sh: consult isBusy\_NUT\_PORT() to pick an available port
  - tests/NIT/nit.sh: add isBusy\_NUT\_PORT()
  - tests/NIT/nit.sh: typo fix in report\_NUT\_PORT()
  - tests/NIT/nit.sh: troubleshoot testcase\_upsd\_allow\_no\_device() - tell exit-code of upsd
  - tests/NIT/nit.sh: troubleshoot testcase\_upsd\_allow\_no\_device()
  - server/upsd.c: report "Found %d UPS defined in ups.conf" upon start
-

**2.693 2022-07-29 Jim Klimov <jimklimov+nut@gmail.com>**

- .gitignore: GitIgnore configure-script test sources
  - .gitignore: GitIgnore coredumps
  - tools/nut-scanner/scan\_xml\_http.c: fix some comments and whitespace
  - tools/nut-scanner/scan\_usb.c: fix some comments and whitespace
  - tools/nut-scanner/scan\_snmp.c: fix some comments
  - tools/nut-scanner/scan\_nut.c: fix some whitespace
  - tools/nut-scanner/scan\_ipmi.c: fix some whitespace
  - tools/nut-scanner/scan\_avahi.c: fix some whitespace
  - tools/nut-scanner/nutscan-serial.c: fix some whitespace
  - server/upsd.c: fix some whitespace
  - include/str.h: fix some whitespace
  - drivers/al175.c, drivers/bcmxcp.c, drivers/bcmxcp\_ser.c, drivers/bcmxcp\_usb.c, drivers/gamatronic.c, drivers/optiups.c, driver-s/powercom.c, drivers/powerp-bin.c, drivers/powerp-txt.c, drivers/snmp-ups.c, drivers/triplite\_usb.c, drivers/upsdrvctl.c, server/netssl.c, tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http.c: Fix "%j\*" and "%z\*" printing to PRI[xidu](SIZE\MAX): avoid dangling "" concatenation in format strings
  - drivers/al175.c, drivers/bcmxcp.c, drivers/bcmxcp\_ser.c, drivers/bcmxcp\_usb.c, drivers/gamatronic.c, drivers/optiups.c, driver-s/powercom.c, drivers/powerp-bin.c, drivers/powerp-txt.c, drivers/snmp-ups.c, drivers/triplite\_usb.c, drivers/upsdrvctl.c, server/netssl.c, tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http.c: Fix "%j\*" and "%z\*" printing to PRI[xidu](SIZE\MAX): avoid dangling "" concatenation in format strings
  - tools/nut-scanner/scan\_xml\_http.c: fix some comments and whitespace
  - tools/nut-scanner/scan\_usb.c: move "Clear any existing error" up where it makes sense
  - tools/nut-scanner/scan\_usb.c: fix some comments and whitespace
  - tools/nut-scanner/scan\_snmp.c: fix some comments
  - tools/nut-scanner/scan\_nut.c: fix some whitespace
  - tools/nut-scanner/scan\_ipmi.c: fix some whitespace
  - tools/nut-scanner/scan\_avahi.c: fix some whitespace
  - tools/nut-scanner/nutscan-serial.c: fix some whitespace
  - server/upsd.c: fix some whitespace
  - server/netssl.c: typo fixes "inialize" ⇒ "initialize", and some whitespace
  - include/str.h: fix some whitespace
  - drivers/al175.c, drivers/bcmxcp.c, drivers/bcmxcp\_ser.c, drivers/bcmxcp\_usb.c, drivers/gamatronic.c, drivers/optiups.c, driver-s/powercom.c, drivers/powerp-bin.c, drivers/powerp-txt.c, drivers/snmp-ups.c, drivers/triplite\_usb.c, drivers/upsdrvctl.c, server/netssl.c, tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http.c: Fix "%j\*" and "%z\*" printing to PRI[xidu](SIZE\MAX): avoid dangling "" concatenation in format strings
  - tests/NIT/nit.sh: fix CRLF/LF handling for UPSC multiline output parsing [#1477]
  - include/wincompat.h: suggest why inet\_ntop() may be not detected on WIN32 (antivirus)
  - .gitignore: GitIgnore configure-script test sources
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- .gitignore: GitIgnore coredumps
- server/upsd.c: whitespace/comment fixes
- configure.ac: suggest why inet\_ntop() may be not detected on WIN32 (antivirus)
- common/wincompat.c: extend fallback inet\_ntop() to support IPv6
- server/upsd.c: improve tracing and range-handling of polled FDs for WIN32
- docs/config-prereqs.txt: make note of MSYS2 terminal pre-sets
- server/sstate.c: update some comments
- server/sstate.c: use VALID\_FD more liberally
- server/sstate.c: comment where sstate\_connect() continued for both platforms
- server/netssl.c: fix some whitespace
- m4/nut\_check\_libltdl.m4: improve detection of "libltdl-7.dll" on WIN32 MSYS2
- server/netssl.c: typo fixes "inialize" ⇒ "initialize", and some whitespace
- tools/nut-scanner/scan\_usb.c: move "Clear any existing error" up where it makes sense

## 2.694 2022-07-28 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/usbhid-ups.c: fix some whitespace
  - drivers/snmp-ups.c: fix some whitespace
  - drivers/libshut.c: fix whitespace
  - drivers/libhid.h: fix whitespace
  - drivers/isbmex.c: fix whitespace
  - drivers/genericups.c: drop blank line
  - drivers/clone-outlet.c: fix some whitespace
  - drivers/blazer\_usb.c: adjust whitespace
  - include/nut\_stdint.h: be consistent - define PRI[di] (both) for MAX and SIZE
  - drivers/usbhid-ups.c: fix some whitespace
  - drivers/snmp-ups.c: fix some whitespace
  - drivers/serial.h: include "common.h" for possibly fallback suseconds\_t
  - drivers/libshut.c: fix whitespace
  - drivers/libhid.h: fix whitespace
  - drivers/isbmex.c: fix whitespace
  - drivers/genericups.c: drop blank line
  - drivers/dummy-ups.c: update comments
  - drivers/clone-outlet.c: fix some whitespace
  - drivers/blazer\_usb.c: adjust whitespace
  - include/nut\_stdint.h: be consistent - define PRI[di] (both) for MAX and SIZE
-

- drivers/usbhid-ups.c: fix some whitespace
- drivers/libusb1.c: Fix "%ji", "%jd" and "%ju" printing to PRI[du]MAX
- drivers/isbmex.c: fix whitespace
- drivers/genericups.h: adjust formatting style
- drivers/dstate.h: comment why we include "main.h" (also dstate is for drivers anyway, should not conflict)
- drivers/clone.c: update some comments
- drivers/clone.c: use VALID\_FD more liberally
- drivers/clone-outlet.c: update some comments
- drivers/clone-outlet.c: use VALID\_FD more liberally
- drivers/belkinunv.c: adjust whitespace
- drivers/apcupsd-ups.c: getdata(): fd\_flags should be "int" not "long"
- docs/config-prereqs.txt: add libltdl for WIN32 MSYS2

## 2.695 2022-07-27 Jim Klimov <jimklimov+nut@gmail.com>

- docs/nut.dict: fix word order
  - clients/upsmon.c: comment "use\_pipe"
  - clients/upssched.c: sendcmd(): fix "pipefd" definition formatting Minimize diffs vs. Windows branch
  - common/common.c: update formatting and comments Minimize diffs vs. Windows branch
  - common/snprintf.c: comment #endif HAVE\_\* reasons
  - docs/man/ups.conf.txt: formatting fix (line per sentence)
  - clients/upsmon.c: main(): fix "cmd" definition formatting Minimize differences vs. Windows branch
  - clients/upsmon.c: fix some whitespace
  - clients/upsclient.c: fix some whitespace
  - docs/nut.dict: fix word order
  - docs/man/ups.conf.txt: formatting fix (line per sentence)
  - configure.ac: typo fix (cosmetic)
  - common/snprintf.c: comment #endif HAVE\_\* reasons
  - common/common.c: refactor confpath() and dflt\_statepath()
  - common/common.c: check\_unix\_socket\_filename(): optimize use of len and max
  - common/common.c: update formatting and comments Minimize diffs vs. Windows branch
  - clients/upssched.c: sendcmd(): fix "pipefd" definition formatting Minimize diffs vs. Windows branch
  - clients/upsmon.c: main(): fix "cmd" definition formatting Minimize differences vs. Windows branch
  - clients/upsmon.c: comment "use\_pipe"
  - clients/upssched.c: clients/upssched.c send\_to\_one(): reword message for "write failed ... disconnecting"
  - clients/upsmon.c: fix some whitespace
-

- clients/upsclient.c: fix some whitespace
- docs/man/ups.conf.txt: formatting fix (line per sentence) with Windows
- common/snprintf.c: drop duplicate variable declarations
- common/common.c: make noise about unimplemented select\_write() on WIN32
- common/common.c: comment about call of dflt\_statepath() from altpidpath()
- common/common.c: do not clutter xmalloc()/xcalloc() with memset(0) on non-WIN32 platforms Very unsure if this is needed on WIN32 either, assuming callers of these methods know the difference and that they do work as advertised on the platform
- common/common.c: simplify writepid() code style
- clients/upssched.c: sendcmd(): fix "pipefd" definition formatting
- clients/upsmon.c: main(): fix "cmd" definition formatting
- clients/upsmon.c: comment "use\_pipe"
- .gitattributes: treat \*.hwdb files as in Unix/Linux format only
- clients/upsmon.c: simplify runparent(): it is completely non-WIN32
- clients/upslog.c: refactor CLI arg processing for WIN32
- clients/upsmon.c: simplify an #ifdef WIN32 block
- include/common.h: move WIN32 additions inside the "#ifdef \_\_cplusplus" braces
- common/common.c: refactor confpath() and dflt\_statepath()
- configure.ac: typo fix (cosmetic)

## 2.696 2022-07-26 Evgeny Klimov <[klimov@provys.com](mailto:klimov@provys.com)>

- clients/Makefile.am: Link libupsclient with libcommon on all platforms Restores the achievements of commit fdcd1efaa4b5c911ce7d4 vs. contents of Windows branch that split off from master before it.

## 2.697 2022-07-24 Jim Klimov <[jimklimov+nut@gmail.com](mailto:jimklimov+nut@gmail.com)>

- scripts/Windows/README: try to link net-snmp shared (does not help though)
- scripts/Windows/README: document the mess of static-only netsnmp builds
- m4/nut\_check\_libnetsnmp.m4: if we fail to find init\_snmp() on mingw, retry with static-linking assumption for net-snmp
- ci\_build.sh: be sure to use fresh configure script for cross-mingw builds too
- ci\_build.sh: fix indentation

## 2.698 2022-07-23 Yifeng Li <[tomli@tomli.me](mailto:tomli@tomli.me)>

- drivers/huawei-ups2000.c: huawei-ups2000.c: rename NULL macros, close [#1474](#). Originally, in the struct array ups2000\_cmd[], a REG\_NONE macro was used as a short-hand for a nonexistent register value. Unfortunately it was in conflict with a Windows NT macro of the same name (previously not found because it was only tested on Unix systems). Thus, this commit renames it to REG\_NULL. To avoid visual confusions with the function pointer field (which also uses C's NULL for its nonexistence), this commit also replaces it with a new macro FUNC\_NULL, which is a simple alias to C's NULL. It's not exactly the best practice, a "UPS2000\_" prefix should've been used in principle. However, using it in this case creates exceedingly long lines and makes the struct array definition more difficult to read, which defeats the very purpose of defining these macros to begin with. Considering that it's only an one-off use, it's unlikely to cause further problems.

**2.699 2022-07-23 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/Windows/README: document libmodbus
- scripts/Windows/build-mingw-nut.sh: propagate correct PKG\_CONFIG\_PATH
- scripts/Windows/build-mingw-nut.sh: avoid installing Augeas lenses into system location autoconf fudges paths for DESTDIR if they are there
- scripts/Windows/README: document latest state of experiment with fontconfig for libgd (fails due to ICU so far)
- scripts/Windows/README: update libgd build with freetype prerequisites
- scripts/Windows/README: suggest ccache
- scripts/Windows/README: update libgd build with zlib and libpng prerequisites
- scripts/Windows/README: update with libgd build
- scripts/Windows/README: update some more comments

**2.700 2022-07-22 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/Windows/README: reference mailing list details from 2016 about more prereq builds
- scripts/Windows/README: update setting envvars for prereq builds
- scripts/Windows/README: update some notes
- tests/NIT/nit.sh: stop\_daemons() before exit-handling to not cause end-of-life error code
- tests/NIT/nit.sh: stop\_daemons(): forget daemon PIDs to avoid mix-ups
- tests/NIT/nit.sh: stop\_daemons(): do not trigger an error by term/exit code from stopped daemons
- scripts/Windows/build-mingw-nut.sh: avoid installing PyNUT into OS paths while testing

**2.701 2022-07-21 Jim Klimov <jimklimov@gmail.com>**

- ci\_build.sh: log BITS\* vars
- ci\_build.sh: cross-windows-mingw: guess bitness from \*FLAGS if no BITS are exported explicitly
- scripts/Windows/build-mingw-nut.sh: avoid concatenating \*FLAGS into invalid strings
- ci\_build.sh: log BITS\* vars

**2.702 2022-07-21 Jim Klimov <jimklimov+nut@gmail.com>**

- tests/NIT/nit.sh: when starting UPSD, log\_debug() which PID\_UPSD we track (troubleshoot)
  - tests/NIT/nit.sh: in stop\_daemons() wait for killed daemons to return an exit-code
  - tests/NIT/nit.sh: introduce best-effort report\_NUT\_PORT() to where we fail if UPSD is not running
  - tests/NIT/nit.sh: when starting UPSD, log\_debug() which PID\_UPSD we track (troubleshoot)
  - tests/NIT/nit.sh: in stop\_daemons() wait for killed daemons to return an exit-code
  - tests/NIT/nit.sh: introduce best-effort report\_NUT\_PORT() to where we fail if UPSD is not running
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**2.703 2022-07-20 Jim Klimov <jimklimov+nut@gmail.com>**

- ci\_build.sh: log ARCH\* vars

**2.704 2022-07-19 Jim Klimov <jimklimov+nut@gmail.com>**

- tests/NIT/nit.sh: testcase\_sandbox\_start\_upsd\_after\_drivers(): avoid hardcoded wait time in favor of more flexibility
- tests/NIT/nit.sh: testcase\_upsd\_allow\_no\_device(): avoid hardcoded wait time in favor of more flexibility
- Makefile.am: make distcheck should test installability of NUT-Monitor and PyNUT (even if as a co-bundle)
- scripts/python/.gitignore: GitIgnore scripts/python/NUT-Monitor wrapper if generated
- configure.ac: only require --with-pynut from --with-all (if Python is detected); do not require --with-nut\_monitor (GUI) here
- ci\_build.sh: do not choke on absence of desktop-related modules in Python - just install (no fatal sanity check)
- ci\_build.sh: do not choke on absence of desktop-related modules in Python
- m4/nut\_check\_python.m4: use better portable quoting
- tests/NIT/nit.sh: fix back the CMDERR handling

**2.705 2022-07-18 Jim Klimov <jimklimov@gmail.com>**

- tests/NIT/nit.sh: testcase\_sandbox\_start\_drivers\_after\_upsd(): log\_warn() if we had to wait for a driver to become usable
- docs/nut.dict: Update docs/nut.dict
- docs/nut.dict: Update docs/nut.dict
- NEWS: fixed man-page building for single-driver builds fixes a regression of NUT 2.8.0

**2.706 2022-07-18 Jim Klimov <jimklimov+nut@gmail.com>**

- tests/NIT/nit.sh: convert many tests that did OUT="upsc . . ." to runcmd()
  - tests/NIT/nit.sh: testcase\_sandbox\_start\_drivers\_after\_upsd(): report what was received from upsc query as device data
  - tests/NIT/nit.sh: runcmd(): set defaults for RUNCMD\_QUIET\_ERR and RUNCMD\_QUIET\_OUT, and avoid printing a blank line when there is nothing captured in the string
  - tests/NIT/nit.sh: testcase\_upsd\_allow\_no\_device(): use runcmd() to retry connection hiccups
  - tests/NIT/nit.sh: introduce runcmd()
  - tests/NIT/nit.sh: report which NUT\_PORT was used in "upsc" failed queries (help catch conflicting test runs)
  - tests/NIT/nit.sh: account FAILED\_FUNCS to help troubleshoot the test script (or tested code)
  - tests/NIT/nit.sh: testcase\_sandbox\_start\_drivers\_after\_upsd(): wait longer for driver start (and valid upsc response)
  - tests/NIT/nit.sh: log the exit-code of "upsc" failed queries
  - tests/NIT/nit.sh: report which NUT\_PORT we started with
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**2.707 2022-07-17 Jim Klimov <jimklimov@gmail.com>**

- scripts/python/Makefile.am, scripts/python/app/README: scripts/python: distribute and reference from README the screenshots from NUT-Monitor site
  - NEWS, UPGRADING, configure.ac, scripts/python/Makefile.am: configure.ac, scripts/python/Makefile.am: handle make install for NUT-Monitor and/or PyNUT [#1462]
  - m4/nut\_check\_python.m4: avoid square brackets, m4 interpreter makes them difficult
  - m4/nut\_check\_python.m4: discover site-packages location for discovered interpreter(s)
  - scripts/python/Makefile.am: distribute the module/README
  - scripts/python/module/README: Update scripts/python/module/README as of NUT v2.8.0 release
  - scripts/python/module/README: Add scripts/python/module/README This is a rough translation of <https://www.lestat.st/informatique/projets/pynut> Pardon my French ;)
  - scripts/python/app/screenshots/nut-monitor-1.png, scripts/python/app/screenshots/nut-monitor-2.png, scripts/python/app/screenshots/monitor-3.png: Add scripts/python/app/screenshots from original project wiki
  - scripts/python/app/nut-monitor.appdata.xml: update localization info
  - scripts/python/Makefile.am: Revert "scripts/python/Makefile.am: EXTRA\_DIST the app/ui/gui-1.3.glade.h sources" This reverts commit d2ede1a4d5d0e89eae31d931818570772895b325. Not sure ATM what the file is actually for, who uses or generates it.
  - scripts/python/Makefile.am: EXTRA\_DIST the app/ui/gui-1.3.glade.h sources
  - scripts/python/Makefile.am: EXTRA\_DIST the translation sources
  - scripts/python/Makefile.am: EXTRA\_DIST the Russian translation (follow-up for #806)
  - scripts/python/Makefile.am: refactor file-set variable naming to facilitate both EXTRA\_DIST and make install
  - Makefile.am: EXTRA\_DIST autogen.sh since we have other bits to regenerate the configure script anyway
  - scripts/python/Makefile.am: EXTRA\_DIST the "dispatcher" script and applet manifest Regression in #1354 for NUT v2.8.0 release Closes: #1462
  - NEWS, configure.ac, docs/man/Makefile.am: configure.ac, docs/man/Makefile.am: fix man-page building when just a few drivers are built by name Regression for custom-builders in NUT 2.8.0 release Closes: #1467
  - NEWS: prioritize NUT v2.8.1 release as a regression-fixer for 2.8.0 (move not-urgent "expected" work to 2.8.2 tentatively)
  - NEWS: fix usbhid-ups reaction to libusb ENOMEM in NUT v2.8.0 [#1422]
  - NEWS: fix regression in dummy-ups for some platforms in NUT v2.8.0 [#1420]
  - NEWS: stop/restart drivers more aggressively in NUT v2.8.1 [#1424]
  - docs/config-prereqs.txt: update libusb availability note for OmniOS
  - NEWS: device support for huawei-ups2000 improved in NUT v2.8.1 [#1448]
  - NEWS: fix regression in cyberpower-mib tables in NUT v2.8.0 [#1432]
  - NEWS: report-desc fix for cps-hid 0x0601 [#1497]
  - NEWS: regression fix for upscore in 2.8.0 release [#1495, #1455]
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**2.708 2022-07-14 Jim Klimov <jimklimov@gmail.com>**

- common/common.c: allow to use NUT\_ALTPIDPATH envvars also on Windows (with similar logic for NUT\_STATEPATH fallback)
- drivers/riello.c, drivers/riello.h, drivers/riello\_ser.c, drivers/riello\_usb.c: drivers/riello\*.{c,h}: update links to PDF protocol documentation Closes: #1481
- server/upsd.c: avoid meaningful work in upsdebug\*() macro call [#1455]
- drivers/upscode2.c: avoid meaningful work in upsdebug\*() macro call [#1455]

**2.709 2022-07-14 Jim Klimov <jimklimov+nut@gmail.com>**

- clients/upssched.c: wrap call to signal(SIGALRM, SIG\_IGN) with pragmas to ignore "-Wstrict-prototypes" (some platform headers do not declare SIG\_IGN as a function prototype)
- clients/Makefile.am: revise use of libupsclient\_la\_SOURCES in favor of pre-built libcommonclient.la
- .gitattributes: constrain EOL for binary files

**2.710 2022-07-14 Austin Sabel <austin.sabel@gmail.com>**

- drivers/cps-hid.c: apply report fix to model CP1500PFCLCDa

**2.711 2022-07-13 Jim Klimov <jimklimov@gmail.com>**

- docs/config-prereqs.txt: fix markup to pass xmllint
- tools/nut-scanner/Makefile.am: fix build on non-Windows platforms

**2.712 2022-07-13 Jim Klimov <jimklimov+nut@gmail.com>**

- .gitattributes: use a different syntax for "\* text eol=auto"
  - scripts/Windows/Installer/NUT-Installer.xml: fix end-of-line chars
  - common/common.c: allow to use NUT\_CONFPATH and NUT\_STATEPATH envvars also on Windows
  - Jenkinsfile-dynamatrix: introduce dynacfgPipeline.axisCombos\_(NOT\_)WINDOWS\_CROSS and a recipe to build on cross-mingw workers
  - scripts/Windows/README: refer to docs/config-prereqs.txt for native WIN32 builds
  - ci\_build.sh, scripts/Windows/README: introduce BUILD\_TYPE=cross-windows-mingw(-64|-32|)
  - tools/nut-scanner/Makefile.am: separate libnutscan\_la\_LDFLAGS version-info from other options, and highlight that SER-LIBS may belong elsewhere
  - clients/Makefile.am: separate libupsclient\_la\_LDFLAGS version-info from other options
  - clients/Makefile.am: fix relative path that should point to top\_sredir
  - configure.ac, server/upsd.c: forfeit use of DATADIR in favor of NUT\_DATADIR to avoid confusion
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**2.713 2022-07-11 Yifeng Li <tomli@tomli.me>**

- docs/man/huawei-ups2000.txt: huawei-ups2000.txt: document UPS2000-G-1KRTS. This commit adds UPS2000-G-1KRTS to the list of tested UPS models. Thanks @sumsethan for reporting it [1]. [1] <https://github.com/networkupstools/nut/issues/-/1066#issuecomment-1180005297>
- docs/nut.dict: nut.dict: add developer name "Hirschler" to the dict. Fix spellcheck regression in 7bfc617c1f6de1d57fe2c06d1a94a9cd9

**2.714 2022-06-23 Marshall Whittaker <marshallwhittaker@gmail.com>**

- docs/nut.dict: Updated dictionary.
- data/driver.list.in: Added SKE SK600 to supported device list.

**2.715 2022-06-23 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/generic\_modbus.c: switch from non-standard "uint" to "uint16\_t" (per context) which we do define
  - drivers/adelsystem\_cbi.c: switch from non-standard "uint" to "uint16\_t" (per context) which we do define
  - drivers/adelsystem\_cbi.c, drivers/adelsystem\_cbi.h: drivers/adelsystem\_cbi.{c,h}: avoid macro clash with WIN32 DEVICE\_TYPE
  - common/common.c: refactor get\_libname() so new get\_libname\_in\_dir() may be used not only to loop search\_paths[]
  - clients/nutclient.cpp, clients/upsclient.c, common/common.c, drivers/libhid.c, drivers/libusb1.c, drivers/main.c, drivers/nutdrv\_siemens\_sitop.c, drivers/upscod2.c, include/nut\_stdint.h, server/upsd.c, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_...  
Fix "%ji", "%jd" and "%ju" printing to PRI[du]MAX
  - drivers/generic\_modbus.c: switch from non-standard "uint" to "uint16\_t" (per context) which we do define
  - drivers/dstate.c: rename (arg\_)extrafd to not shadow a global var name
  - drivers/adelsystem\_cbi.c: switch from non-standard "uint" to "uint16\_t" (per context) which we do define
  - drivers/adelsystem\_cbi.c, drivers/adelsystem\_cbi.h: drivers/adelsystem\_cbi.{c,h}: avoid macro clash with WIN32 DEVICE\_TYPE
  - common/strerror.c: include stdio.h for snprintf()
  - common/strerror.c: avoid build error if EDEADLK==EDEADLOCK
  - common/common.c: refactor get\_libname() so new get\_libname\_in\_dir() may be used not only to loop search\_paths[]
  - common/atexit.c: mark NUT\_UNUSED\_VARIABLE if we !HAVE\_ON\_EXIT
  - clients/nutclient.cpp, clients/upsclient.c, common/common.c, drivers/libhid.c, drivers/libusb1.c, drivers/main.c, drivers/nutdrv\_siemens\_sitop.c, drivers/upscod2.c, include/nut\_stdint.h, server/upsd.c, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_...  
Fix "%ji", "%jd" and "%ju" printing to PRI[du]MAX
  - autogen.sh: suggest how to re-checkout workspace with desired EOL settings
  - docs/nut.dict: Update nut.dict
  - docs/config-prereqs.txt: fix typos
  - docs/config-prereqs.txt: install aspell-en for MSYS2
  - docs/config-prereqs.txt: suggest a way to install DLLs into proto area after an MSYS2 build
  - drivers/adelsystem\_cbi.c, drivers/adelsystem\_cbi.h: drivers/adelsystem\_cbi.{c,h}: avoid macro clash with WIN32 DEVICE\_TYPE
  - drivers/adelsystem\_cbi.c: switch from non-standard "uint" to "uint16\_t" (per context) which we do define
  - drivers/generic\_modbus.c: switch from non-standard "uint" to "uint16\_t" (per context) which we do define
-

- configure.ac, drivers/huawei-ups2000.c, include/timehead.h: include/timehead.h: fallback gmtime\_r() variants
- include/timehead.h: implement a (non thread-safe currently) fallback from missing localtime\_r() via localtime()
- configure.ac, drivers/mge-hid.c, include/timehead.h: Fallback from missing localtime\_r() to present localtime\_s() where available
- docs/config-prereqs.txt: warn about antivirus interaction with native Windows builds
- common/sterror.c: include stdio.h for snprintf()
- common/sterror.c: avoid build error if EDEADLK==EDEADLOCK
- common/atexit.c: mark NUT\_UNUSED\_VARIABLE if we !HAVE\_ON\_EXIT
- scripts/Windows/README: stash some URLs to dependencies not detailed further yet
- .gitattributes: Introduce .gitattributes
- autogen.sh: suggest how to re-checkout workspace with desired EOL settings
- docs/config-prereqs.txt: MSYS2 baseline request includes implementations of autotools
- docs/config-prereqs.txt: update suggestions for "pure" mingw installation on Windows
- common/common.c: getfullpath(): change buf size to MAX\_PATH and limit strncat() safely
- drivers/dstate.c: rename (arg\_)extrafd to not shadow a global var name
- clients/nutclient.cpp, clients/upsclient.c, common/common.c, drivers/libhid.c, drivers/libusb1.c, drivers/main.c, drivers/nutdrv\_siemens\_sitop.c, drivers/upscode2.c, include/nut\_stdint.h, server/upsd.c, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_ Replace %jd and %ju with PRI[du]MAX
- drivers/libusb0.c: common/common.c: fallback strcasestr(): avoid double-free on some platforms
- tools/nut-scanner/nutscan-init.c: look for (WIN32) libupsclient-6 according to version-info
- common/common.c: update search\_paths[] to include "." on WIN32 for now
- common/common.c: refactor get\_libname() so new get\_libname\_in\_dir() may be used not only to loop search\_paths[]

#### 2.716 2022-06-21 Jim Klimov <jimklimov+nut@gmail.com>

- common/common.c: get\_libname(): debug trace when skipping an absent dirname
- include/wincompat.h: ensure that we have a PATH\_MAX defined
- tools/nut-scanner/nutscan-init.c: if we build WITH\_SNMP\_STATIC then assume nutscan\_avail\_snmp==1
- configure.ac: whitespace fix
- clients/upsset.c: rectify includes for WIN32 builds
- ci\_build.sh: set default defines in C(XX)FLAGS for WIN32 builds

#### 2.717 2022-06-20 Yifeng Li <tomli@tomli.me>

- drivers/huawei-ups2000.c: huawei-ups2000.c: update comment header with info about docs.

#### 2.718 2022-06-19 Marshall Whittaker <marshallwhittaker@gmail.com>

- docs/man/nutdrv\_qx.txt: Noted that SKE devices work with the nutdrv\_qx driver.
-

**2.719 2022-06-18 Yifeng Li <tomli@tomli.me>**

- docs/nut.dict: nut.dict: add CH341/UART related terms to dict.
- docs/man/huawei-ups2000.txt: huawei-ups2000.txt: document UPS2000G/CH341 variant.
- drivers/huawei-ups2000.c: huawei-ups2000.c: support newer UPS2000G/CH341 variants. We received a report of the existence of a new hardware variant from the bug tracker [1]. This UPS unit has the model number UPS2000-G-3KRTS just like a model we've previously tested, and it has the same V2R1C1SPC50 firmware, which was tested by us as well (although not on UPS2000-G-3KRTS but on UPS2000-A-2KTTS). However, there are two obvious hardware differences. First, this unit reports itself as "UPS2000G" via the protocol instead, which is a new value not found in the datasheet or previously encountered by us. Previously, even a "UPS2000G" model reports itself as the "UPS2000A". Another difference is the use of WCH CH341 serial-to-USB converter chip instead of the MaxLinear/Exar RX21V1410 chip. Bus 002 Device 005: ID 1a86:5523 QinHeng Electronics CH341 in serial mode, usb to serial port converter The production label on the UPS says 2021-12-04. So it's likely a newer hardware revision or variant. Was it redesigned to improve USB serial compatibility? Or my personal guess, due to chip shortage? Who knows. Nevertheless, once the "UPS2000G" model string is added to the supported list, it was reported that the driver correctly functions without doing anything else. Thus, from a software perspective there's no difference. Thanks GitHub user @Qinka for reporting it. [1] <https://github.com/networkupstools/nut/issues/1066#issuecomment-1158417669>

**2.720 2022-06-18 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/apcupsd-ups.c: align fcntl() error-checking with upsd.c precedent
- drivers/riello\_ser.c: make it build for WIN32
- drivers/blazer\_ser.c: warn in WIN32 build start-up messages that actual serial port setup may be not happening yet
- drivers/apcupsd-ups.c: port bits of networking code from upsd.c for WIN32 build
- drivers/apcupsd-ups.c: getdata() for WIN32: only CloseHandle() when we close() the p.fd, to err on the safe side and be similar to other codebase
- drivers/apcupsd-ups.c: align fcntl() error-checking with upsd.c precedent

**2.721 2022-06-16 Michael Hirschler <michael.vhirsch@gmail.com>**

- docs/documentation.txt: adds link describing NUT on Fedora 36

**2.722 2022-06-16 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/blazer\_usb.c, drivers/libshut.h, drivers/nut\_libusb.h, drivers/nutdrv\_qx.c, drivers/riello\_usb.c, drivers/tripplite\_usb.c, drivers/usbhid-ups.c: drivers/libusb.h, libshut.h, nutdrv\_qx et al: rename \*\_communication\_subdriver\_s fields for function pointers "open" and "close" to " \*\_dev" - to avoid conflict with serial.h macros for WIN32 builds
  - drivers/tripplitesu.c: rename SHUTDOWN\_\* to TSU\_SHUTDOWN\_\* to avoid WIN32 macro conflicts
  - drivers/tripplitesu.c: rename SHUTDOWN\_\* to TSU\_SHUTDOWN\_\* to avoid WIN32 macro conflicts
  - drivers/blazer\_usb.c, drivers/libshut.h, drivers/nut\_libusb.h, drivers/nutdrv\_qx.c, drivers/riello\_usb.c, drivers/tripplite\_usb.c, drivers/usbhid-ups.c: drivers/libusb.h, libshut.h, nutdrv\_qx et al: rename \*\_communication\_subdriver\_s fields for function pointers "open" and "close" to " \*\_dev" - to avoid conflict with serial.h macros for WIN32 builds
  - drivers/Makefile.am: move apcupsd-ups and skel to NUTSW\_DRIVERLIST [#1446]
  - drivers/Makefile.am: move apcupsd-ups and skel to NUTSW\_DRIVERLIST [#1446]
  - drivers/apcupsd-ups.c: use INVALID\_SOCKET for catching socket() problems
  - drivers/apcupsd-ups.c: getdata(): fix fcntl() vs CreateEvent() in WIN32 model
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- NEWS, UPGRADING, configure.ac, drivers/Makefile.am: Separate NUT software-only drivers from serial ones Closes: [#1446](#)
- NEWS, UPGRADING, configure.ac, drivers/Makefile.am: Separate NUT software-only drivers from serial ones [[#1446](#)]
- drivers/apcupsd-ups.c: rectify includes for WIN32 build
- drivers/blazer\_usb.c, drivers/libshut.h, drivers/nut\_libusb.h, drivers/nutdrv\_qx.c, drivers/riello\_usb.c, drivers/tripplite\_usb.c, drivers/usbhid-ups.c: drivers/libusb.h, libshut.h, nutdrv\_qx et al: rename \*\_communication\_subdriver\_s fields for function pointers "open" and "close" to " \*\_dev" - to avoid conflict with serial.h macros for WIN32 builds
- drivers/apcsmart.c: only define ECANCELED if not avoidable
- drivers/clone-outlet.c: only declare last\_connfail in non-WIN32 builds
- drivers/apcsmart.c: use VALID\_FD()
- drivers/clone-outlet.c: use VALID\_FD()
- drivers/clone.c: use VALID\_FD()
- drivers/blazer\_ser.c: currently neuter big part of upsdrv\_initups() on WIN32 to avoid build errors
- scripts/Windows/build-mingw-nut.sh: quote path variable expansions
- include/wincompat.h: define TIOCM\_RI the best we can (someone should check it works for real HW)
- drivers/tripplitesu.c: rename SHUTDOWN\_\* to TSU\_SHUTDOWN\_\* to avoid WIN32 macro conflicts
- drivers/dummy-ups.c: do not rely on fstat(int,...) in WIN32

#### 2.723 2022-06-15 Jim Klimov <[jimklimov@gmail.com](mailto:jimklimov@gmail.com)>

- docs/nut.dict: nut.dict: update for WIN32 changes
- NEWS: Note revival of Windows build effort with NUT v2.8.x era codebase
- INSTALL.nut, docs/nut.dict: nut.dict: update for WIN32 docs updates

#### 2.724 2022-06-15 Jim Klimov <[jimklimov+nut@gmail.com](mailto:jimklimov+nut@gmail.com)>

- configure.ac: unblock serial (and other?) driver building with WIN32 target

#### 2.725 2022-06-14 Jim Klimov <[jimklimov@gmail.com](mailto:jimklimov@gmail.com)>

- common/wincompat.c, drivers/huawei-ups2000.c, scripts/Windows/wininit.c: scripts/Windows/wininit.c common/wincompat.c: change the fix for empty translation unit to one that does not emit other warnings :)
  - drivers/blazer\_usb.c, drivers/nutdrv\_qx.c, drivers/tripplite\_usb.c: drivers/usb.c: address fallout for LIBUSB\_ERROR\_ re-naming
  - configure.ac: fix strdup() check (include stdlib.h to have free())
  - configure.ac: fix str\*() check program codes
-

**2.726 2022-06-14 Jim Klimov <jimklimov+nut@gmail.com>**

- m4/ax\_c\_pragmas.m4: avoid strcasestr() which is not ubiquitous
  - scripts/Windows/build-mingw-nut.sh: require clean builds without warnings
  - tools/nut-scanner/scan\_snmp.c: do not cast snmp\_errno as a function ptr when we build WITH\_SNMP\_STATIC
  - tools/nut-scanner/scan\_snmp.c: hush compiler warnings about unused DL vars when we build WITH\_SNMP\_STATIC
  - tools/nut-scanner/scan\_snmp.c: hush compiler warnings about function pointer vs. void\* Per [https://gcc.gnu.org/bugzilla/show\\_bug.cgi?id=83584](https://gcc.gnu.org/bugzilla/show_bug.cgi?id=83584) the standards do not actually forbid this (and dlsym internally relies on it), just this is not a defined behavior and might not work on all platforms.
  - tools/nut-scanner/scan\_snmp.c: avoid unused label for WITH\_SNMP\_STATIC builds
  - drivers/serial.c: mark NUT\_UNUSED\_VARIABLE(port) when "no locking method is available"
  - tools/nut-scanner/nutscan-init.c: fix WIN32 stub of do\_upsconf\_args()
  - tools/nut-scanner/scan\_nut.c: fix WIN32 builds (unused variable in its scope)
  - drivers/upsdrvctl.c: fix handling of signals vs commands to stop a driver
  - include/common.h, drivers/serial.c: drop PRINT\_FD() as invalid
  - common/strptime.c: comment away fallback strncasecmp()
  - common/Makefile.am, common/strptime.c, configure.ac, include/timehead.h: configure.ac: detect if we HAVE\_STRPTIME and optionally fall back to NetBSD implementation (from MSYS2)
  - configure.ac, drivers/serial.h: consider if we HAVE\_SYS\_SELECT\_H at all
  - clients/message.c: avoid NPE, make use of argc
  - tools/nut-scanner/nutscan-ip.c: revise includes etc.
  - m4/nut\_func\_getnameinfo\_argtypes.m4: adapt to WIN32 (mingw) arg4\+6
  - drivers/dstate.c, drivers/dstate.h, drivers/main.c, drivers/main.h: drivers/dstate.c, main.{c,h}: make set\_exit\_flag() reusable
  - clients/upssched.c: fix non-WIN32 (only) use of some variables in sendcmd()
  - clients/upssched.c: fix WIN32 "fd" reporting and use (int vs HANDLE)
  - clients/upssched.c: fix use of close() for WIN32 builds
  - drivers/dstate.h: include "wincompat.h" in WIN32 builds to have HANDLE defined
  - drivers/dstate.c: mark NUT\_UNUSED\_VARIABLE(extrafd) in WIN32 variant of dstate\_poll\_fds()
  - drivers/dstate.c: fix WIN32 reporting of pipename vs sockfn
  - drivers/dstate.c: fix WIN32 "fd" reporting and use (int vs HANDLE)
  - drivers/dstate.c: whitespace fix
  - drivers/dstate.c: avoid duplicate import with WIN32 builds
  - scripts/Windows/wininit.c: SvcMain(): mark NUT\_UNUSED\_VARIABLE argc/argv
  - configure.ac, drivers/libusb0.c, include/str.h: configure.ac, drivers/libusb0.c: implement a fallback strcasestr() if needed and possible
  - m4/ax\_c\_pragmas.m4: avoid strcasestr() which is not ubiquitous
  - drivers/libusb0.c: avoid unused "busses" variable
  - server/upsd.c: ups\_available(): call VALID\_FD() for portability
  - scripts/Windows/.gitignore: GitIgnore Windows build area (per script for mingw)
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**2.727 2022-06-13 Jim Klimov <jimklimov+nut@gmail.com>**

- common/common.c: avoid realpath() on platforms that lack it Part of this was merged to master earlier, except the header include
  - clients/upsmon.c, clients/upssched.c, common/common.c, common/parseconf.c, include/common.h: Refactor fcntl( ..., FD\_CLOEXEC) as set\_close\_on\_exec() where possible
  - drivers/mge-xml.c, drivers/netxml-ups.c, drivers/netxml-ups.h, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx.h, drivers/nutdrv\_qx\_bestups.c, drivers/usbhid-ups.c, drivers/usbhid-ups.h: drivers/\*.{h,c}: rename "CAL" in enums to "CALIB" to avoid name clash in WIN32 builds
  - configure.ac: check for existence of realpath()
  - drivers/snmp-ups.h: be sure to include "nut\_stdint.h"
  - drivers/mge-xml.c, drivers/netxml-ups.c, drivers/netxml-ups.h, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx.h, drivers/nutdrv\_qx\_bestups.c, drivers/usbhid-ups.c, drivers/usbhid-ups.h: drivers/\*.{h,c}: rename "CAL" in enums to "CALIB" to avoid name clash in WIN32 builds
  - configure.ac: check for existence of realpath()
  - clients/upsmon.c, clients/upssched.c, common/common.c, common/parseconf.c, include/common.h: Refactor fcntl( ..., FD\_CLOEXEC) as set\_close\_on\_exec() where possible
  - drivers/blazer\_usb.c, drivers/libshut.h, drivers/nutdrv\_qx.c, drivers/riello\_usb.c, drivers/tripplite\_usb.c, drivers/usb-common.h, drivers/usbhid-ups.c: usb, shut headers and drivers: update from ERROR\_\* macros to LIBUSB\_ERROR\_\* macros (avoid conflict on WIN32) Also define LIBUSB\_ERROR\_INTERRUPTED, LIBUSB\_ERROR\_NOT\_SUPPORTED and LIBUSB\_ERROR\_OTHER tokens for libusb-0.1 and SHUT builds for completeness
  - clients/upssched.c: reconcile size\_t buflen/ssize\_t ret in WIN32 build
  - server/upsd.c: main(): no oldpid in WIN32 builds
  - server/upsd.c: check\_perms(): NUT\_UNUSED\_VARIABLE(fn) on WIN32
  - server/upsd.c: mainloop(): fix visibility of nfds for all platforms
  - server/netssl.c: fix includes for WIN32 builds
  - common/common.c: optimize check\_unix\_socket\_filename() and make it more portable
  - clients/upsmon.c: oldpid is not used in WIN32 builds
  - clients/upslog.c: set\_print\_now\_flag() is not used in WIN32 builds
  - drivers/nutdrv\_atcl\_usb.c: do not check return value of sleep() on WIN32 (is void)
  - common/wincompat.c, configure.ac, scripts/Windows/build-mingw-nut.sh: configure.ac, build-mingw-nut.sh: fix inet\_ntop() detection for WIN32 builds
  - drivers/main.c: fix WIN32 builds regarding user/group tweaks and signal handling
  - tools/nut-scanner/nutscan-ip.c: be sure to include "nut\_stdint.h"
  - drivers/snmp-ups.h: be sure to include "nut\_stdint.h"
  - drivers/blazer\_usb.c, drivers/libshut.h, drivers/nutdrv\_qx.c, drivers/riello\_usb.c, drivers/tripplite\_usb.c, drivers/usb-common.h, drivers/usbhid-ups.c: usb, shut headers and drivers: update from ERROR\_\* macros to LIBUSB\_ERROR\_\* macros (avoid conflict on WIN32) Also define LIBUSB\_ERROR\_INTERRUPTED, LIBUSB\_ERROR\_NOT\_SUPPORTED and LIBUSB\_ERROR\_OTHER tokens for libusb-0.1 and SHUT builds for completeness
  - common/common.c: avoid realpath() on platforms that lack it
  - configure.ac: check for existence of realpath()
-

- common/common.c: fix up some NUT\_UNUSED\_VARIABLE()s
- common/common.c, include/common.h: common/common.{c,h}: fix up select\_read()/select\_write() with WIN32 builds
- common/common.c: include dirent.h in WIN32 builds also
- drivers/mge-xml.c, drivers/netxml-ups.c, drivers/netxml-ups.h, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx.h, drivers/nutdrv\_qx\_bestups.c, drivers/usbhid-ups.c, drivers/usbhid-ups.h: drivers/\*.{h,c}: rename "CAL" in enums to "CALIB" to avoid name clash in WIN32 builds
- clients/upsmon.c, clients/upssched.c, common/common.c, common/parseconf.c, include/common.h: Refactor fcntl(..., FD\_CLOEXEC) as set\_close\_on\_exec() where possible
- configure.ac: disable format warnings for mingw builds

## 2.728 2022-06-09 Jim Klimov <jimklimov@gmail.com>

- tools/nut-scanner/nutscan-init.c: define SOEXT (shared object file extension) as a macro
- tools/nut-scanner/Makefile.am, tools/nut-scanner/nutscan-init.c, tools/nut-scanner/scan\_snmp.c: tools/nut-scanner: adjust ltdl names or contents to WIN32 builds
- tools/nut-scanner/Makefile.am: link net-snmp statically on (MinGW) WIN32 builds
- scripts/Windows/README, scripts/Windows/build-mingw-nut.sh: scripts/Windows/build-mingw-nut.sh \+ README: add libtool (libltdl) for nut-scanner
- scripts/Windows/build-mingw-nut.sh: install client dlls in sbin (for upsmon)
- scripts/Windows/README, scripts/Windows/build-mingw-nut.sh: scripts/Windows/build-mingw-nut.sh: install dependency DLLs near drivers
- scripts/Windows/build-mingw-nut.sh: avoid installing systemd files in Windows :)
- scripts/Windows/README: note the verified build environment
- scripts/Windows/README: suggest a build command from scratch
- scripts/Windows/README: flesh out dependency installation for libusb(-compat-0.1) and libsnmp
- scripts/Windows/README: suggest to "sudo" make install the dependencies built as mere user
- scripts/Windows/README: fix example build commands considering \$ARCH etc defined above
- scripts/Windows/README: suggest to "export" HOST\_FLAG and beyond, to define ARCH once and inherit from it in another single copy-pasted command

## 2.729 2022-06-09 Jim Klimov <jimklimov+nut@gmail.com>

- scripts/Windows/README, scripts/Windows/build-mingw-nut.sh: scripts/Windows/README: document use of a SOURCE-MODE and some other settings

## 2.730 2022-06-08 Jim Klimov <jimklimov+nut@gmail.com>

- scripts/Windows/build-mingw-nut.sh: show all build errors, and do not require any features (do best-effort)
  - scripts/Windows/README: note that ./build-mingw-nut.sh takes care of envvars
  - configure.ac, drivers/apcupsd-ups.c, server/upsd.h: server/upsd.h: fix absent poll.h
  - common/common.c: fix undefined LOG\_ERROR
  - scripts/Windows/build-mingw-nut.sh: adapt to NUT v2.8.0(.1) dist tarballs, etc.
-

**2.731 2022-05-26 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/belkin.c, drivers/bestups.c, drivers/huawei-ups2000.c, drivers/ivtsd.c, drivers/libshut.h, drivers/masterguard.c, drivers/nutdrv\_qx\_masterguard.c, drivers/oneac.c, drivers/optiups.c, drivers/powerp-txt.c, drivers/rhino.c, drivers/tripplitesu.c, drivers/usbhid-ups.c: drivers: fix headers to printf with PRIuSIZE formatting token
- include/proto.h, common/setenv.c: be sure to include "config.h"
- drivers/belkin.c, drivers/bestups.c, drivers/huawei-ups2000.c, drivers/ivtsd.c, drivers/libshut.h, drivers/masterguard.c, drivers/nutdrv\_qx\_masterguard.c, drivers/oneac.c, drivers/optiups.c, drivers/powerp-txt.c, drivers/rhino.c, drivers/tripplitesu.c, drivers/usbhid-ups.c: drivers: fix headers to printf with PRIuSIZE formatting token
- drivers/genericups.c: include "wincompat.h" where needed, to have respective macros defined
- include/proto.h, common/setenv.c: be sure to include "config.h"
- drivers/belkin.c, drivers/bestups.c, drivers/ivtsd.c, drivers/libshut.h, drivers/masterguard.c, drivers/nutdrv\_qx\_masterguard.c, drivers/oneac.c, drivers/optiups.c, drivers/powerp-txt.c, drivers/rhino.c, drivers/tripplitesu.c, drivers/usbhid-ups.c: drivers: fix headers to printf with PRIuSIZE formatting token
- include/common.h: be sure to see fcntl() definitions on WIN32 MSYS2

**2.732 2022-05-24 Jim Klimov <jimklimov+nut@gmail.com>**

- clients/upsc.c, clients/upscclient.c, clients/upscmd.c, clients/upsmon.c, clients/upsrw.c, clients/upssched.c, clients/upsset.c, common/common.c, drivers/al175.c, drivers/apcsmart.c, drivers/bcmxcp.c, drivers/bcmxcp\_ser.c, drivers/bcmxcp\_usb.c, drivers/belkin.c, drivers/bestfortress.c, drivers/bestups.c, drivers/clone-outlet.c, drivers/clone.c, drivers/dstate.c, drivers/dummy-ups.c, drivers/gamatronic.c, drivers/huawei-ups2000.c, drivers/isbmex.c, drivers/ivtsd.c, drivers/libhid.c, drivers/libshut.c, drivers/libusb0.c, drivers/libusb1.c, drivers/liebert-esp2.c, drivers/masterguard.c, drivers/metasys.c, drivers/mge-utalk.c, drivers/microsol-common.c, drivers/netxml-ups.c, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx\_masterguard.c, drivers/nutdrv\_siemens\_sitop.c, drivers/oneac.c, drivers/optiups.c, drivers/powercom.c, drivers/powerp-bin.c, drivers/powerp-txt.c, drivers/rhino.c, drivers/snmp-ups.c, drivers/solis.c, drivers/tripplite.c, drivers/tripplite\_usb.c, drivers/tripplitesu.c, drivers/upscode2.c, drivers/upsdrvctl.c, include/nut\_stdint.h, server/netssl.c, server/sockdebug.c, server/upsd.c, tests/getvaluetest.c, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http: Fix "%zx", "%zd", "%zi" and "%zu" printing to PRI[xiu]SIZE that is named more standards-like
- common/parseconf.c: include "config.h" first
- clients/upsc.c, clients/upscclient.c, clients/upscmd.c, clients/upsmon.c, clients/upsrw.c, clients/upssched.c, clients/upsset.c, common/common.c, drivers/al175.c, drivers/apcsmart.c, drivers/bcmxcp.c, drivers/bcmxcp\_ser.c, drivers/bcmxcp\_usb.c, drivers/belkin.c, drivers/bestfortress.c, drivers/bestups.c, drivers/clone-outlet.c, drivers/clone.c, drivers/dstate.c, drivers/dummy-ups.c, drivers/gamatronic.c, drivers/huawei-ups2000.c, drivers/isbmex.c, drivers/ivtsd.c, drivers/libhid.c, drivers/libshut.c, drivers/libusb0.c, drivers/libusb1.c, drivers/liebert-esp2.c, drivers/masterguard.c, drivers/metasys.c, drivers/mge-utalk.c, drivers/microsol-common.c, drivers/netxml-ups.c, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx\_masterguard.c, drivers/nutdrv\_siemens\_sitop.c, drivers/oneac.c, drivers/optiups.c, drivers/powercom.c, drivers/powerp-bin.c, drivers/powerp-txt.c, drivers/rhino.c, drivers/snmp-ups.c, drivers/solis.c, drivers/tripplite.c, drivers/tripplite\_usb.c, drivers/tripplitesu.c, drivers/upscode2.c, drivers/upsdrvctl.c, include/nut\_stdint.h, server/netssl.c, server/sockdebug.c, server/upsd.c, tests/getvaluetest.c, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http: Fix "%zx", "%zd", "%zi" and "%zu" printing to PRI[xiu]SIZE that is named more standards-like
- common/parseconf.c: include "config.h" first
- common/wincompat.c, configure.ac, include/wincompat.h: wincompat.{c,h}, configure.ac: introduce HAVE\_INET\_NTOP
- common/wincompat.c, scripts/Windows/wininit.c: common/wincompat.c, wininit.c: avoid defining errno as "extern int" for little reason
- common/wincompat.c: mark with NUT\_UNUSED\_VARIABLE()

- clients/upsc.c, clients/upscclient.c, clients/upscmd.c, clients/upsmon.c, clients/upsrw.c, clients/upssched.c, clients/upsset.c, common/common.c, common/wincompat.c, drivers/al175.c, drivers/apcsmart.c, drivers/bcmxcp.c, drivers/bcmxcp\_ser.c, drivers/bcmxcp\_usb.c, drivers/belkin.c, drivers/bestfortress.c, drivers/bestups.c, drivers/clone-outlet.c, drivers/clone.c, drivers/dstate.c, drivers/dummy-ups.c, drivers/gamatronic.c, drivers/huawei-ups2000.c, drivers/isbmex.c, drivers/ivtsd.c, drivers/libhid.c, drivers/libshut.c, drivers/libusb0.c, drivers/libusb1.c, drivers/liebert-esp2.c, drivers/masterguard.c, drivers/metasys.c, drivers/mge-utalk.c, drivers/microsol-common.c, drivers/netxml-ups.c, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx\_masterguard.c, drivers/nutdrv\_siemens\_sitop.c, drivers/oneac.c, drivers/optiups.c, drivers/powercom.c, drivers/powerp-bin.c, drivers/powerp-txt.c, drivers/rhino.c, drivers/snmp-ups.c, drivers/solis.c, drivers/tripplite.c, drivers/tripplite\_usb.c, drivers/tripplitesu.c, drivers/upscode2.c, drivers/upsdrvctl.c, include/nut\_stdint.h, server/netssl.c, server/sockdebug.c, server/upsd.c, tests/getvaluetest.c, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml.c: Fix "%zx", "%zd", "%zi" and "%zu" printing to PRI[xiu]SIZE that is named more standards-like
- clients/upsc.c, clients/upscclient.c, clients/upscmd.c, clients/upsmon.c, clients/upsrw.c, clients/upssched.c, clients/upsset.c, common/common.c, drivers/al175.c, drivers/apcsmart.c, drivers/bcmxcp.c, drivers/bcmxcp\_ser.c, drivers/bcmxcp\_usb.c, drivers/belkin.c, drivers/bestfortress.c, drivers/bestups.c, drivers/clone-outlet.c, drivers/clone.c, drivers/dstate.c, drivers/dummy-ups.c, drivers/gamatronic.c, drivers/huawei-ups2000.c, drivers/isbmex.c, drivers/ivtsd.c, drivers/libhid.c, drivers/libshut.c, drivers/libusb0.c, drivers/libusb1.c, drivers/liebert-esp2.c, drivers/masterguard.c, drivers/metasys.c, drivers/mge-utalk.c, drivers/microsol-common.c, drivers/netxml-ups.c, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx\_masterguard.c, drivers/nutdrv\_siemens\_sitop.c, drivers/oneac.c, drivers/optiups.c, drivers/powercom.c, drivers/powerp-bin.c, drivers/powerp-txt.c, drivers/rhino.c, drivers/snmp-ups.c, drivers/solis.c, drivers/tripplite.c, drivers/tripplite\_usb.c, drivers/tripplitesu.c, drivers/upscode2.c, drivers/upsdrvctl.c, server/netssl.c, server/sockdebug.c, server/upsd.c, tests/getvaluetest.c, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml.c: Fix "%zd", "%zi" and "%zu" printing to PRI(s)size
- include/wincompat.h: only define EAFNOSUPPORT if absent
- include/wincompat.h: only define ETIMEDOUT if absent
- include/wincompat.h: use value for include-guard as elsewhere
- common/wincompat.c: include "config.h" first
- common/wincompat.c, include/nut\_stdint.h: common/wincompat.c, nut\_stdint.h: wrap some long lines, fix formatting chars  
Fix PRI(s)size for WIN32 builds
- common/wincompat.c: avoid GNU extension syntax
- configure.ac, include/common.h: ensure we have a "suseconds\_t" always

### 2.733 2022-05-24 Jim Klimov <jim@jimklimov.com>

- drivers/cyberpower-mib.c: Update cyberpower-mib.c Closes: #1427

### 2.734 2022-05-23 Jim Klimov <jimklimov+nut@gmail.com>

- ci\_build.sh: --disable-force-nut-version-header for builds without a BUILD\_TYPE, to help iterate faster
- configure.ac, include/Makefile.am: introduce @FORCE\_NUT\_VERSION@
- ci\_build.sh: allow to pass CI\_CCACHE\_SYMLINKDIR="-" to avoid guessing one
- ci\_build.sh: better detect ccache symlink directory
- ci\_build.sh: allow to pass CI\_CCACHE\_SYMLINKDIR="-" to avoid guessing one
- ci\_build.sh: --disable-force-nut-version-header for builds without a BUILD\_TYPE, to help iterate faster
- configure.ac, include/Makefile.am: introduce @FORCE\_NUT\_VERSION@
- m4/nut\_check\_headers\_windows.m4: Revert "m4/nut\_check\_headers\_windows.m4: try to allow builds with MINGW32 (despite CYGWIN or CEGCC) as native-Windows" This reverts commit 76bf1ee94f39b619d1c7325b16d36072c427390e.

- ci\_build.sh: better detect ccache symlink directory
- docs/config-prereqs.txt: update Windows MSYS2 with notes on ccache
- docs/config-prereqs.txt: update Windows MSYS2 with more libneon packaging
- docs/config-prereqs.txt: update Windows MSYS2 with recommended PATH settings

### 2.735 2022-05-20 Jim Klimov <jimklimov+nut@gmail.com>

- scripts/Windows/halt.c: mark some NUT\_UNUSED\_VARIABLEs
- drivers/serial.h: include config.h first
- ci\_build.sh: allow use of ccache in default builds without BUILD\_TYPE
- ci\_build.sh: detect relevant CI\_CCACHE\_SYMLINKDIR variants
- ci\_build.sh: allow use of ccache in default builds without BUILD\_TYPE
- m4/nut\_check\_headers\_windows.m4: NUT\_CHECK\_HEADER\_WINDOWS(): try CFLAGS="-I/usr/include/w32api ..."
- m4/nut\_check\_headers\_windows.m4: try to allow builds with *MINGW32* (despite *CYGWIN* or *CEGCC*) as native-Windows
- drivers/upsdrvctl.c: avoid duplicate variable declaration
- scripts/Windows/halt.c: mark some NUT\_UNUSED\_VARIABLEs
- scripts/Windows/wininit.c: include config.h first and avoid "empty translation unit" on non-WIN32 builds
- drivers/serial.h: include config.h first
- drivers/serial.h: hack TIOCM\_ST value that may be missing from termios.h on Windows MSYS2
- docs/config-prereqs.txt: add more suggested Windows MSYS2 dependencies
- docs/config-prereqs.txt: add a NOTE about suggested pick of Windows MSYS2 dependencies
- docs/config-prereqs.txt: update links in Windows chapter
- ci\_build.sh: detect relevant CI\_CCACHE\_SYMLINKDIR variants
- INSTALL.nut: add a chapter on Windows build environment variants, and separate further config notes with a heading
- docs/config-prereqs.txt: add a chapter on Windows build environment variants (MSYS2 etc)

### 2.736 2022-05-19 Thierry Duvernoy <tduvernoy@free.fr>

- drivers/usbhid-ups.c: Indentation correction and improvement of reconnection debug messages

### 2.737 2022-05-19 Jim Klimov <jimklimov@gmail.com>

- docs/man/usbhid-ups.txt: Update usbhid-ups.txt Rephrase English wording for waitbeforereconnect keyword

### 2.738 2022-05-19 Jim Klimov <jimklimov+nut@gmail.com>

- ci\_build.sh: recognize CI\_OS\_NAMES for Windows MSYS2 and mingw variants
-

**2.739 2022-05-19 Federico Mena Quintero <federico@gnome.org>**

- docs/config-notes.txt: Fix link to the blazer\_usb manual page There's no man page for blazer[8]; I think blazer\_usb is the intended one, since all the links in that set are to the USB drivers.

**2.740 2022-05-18 Thierry Duvernoy <tduvernoy@free.fr>**

- docs/man/usbhid-ups.txt: usbhid-ups documentation correction
- docs/man/usbhid-ups.txt: Documentation spell checking correction
- docs/nut.dict: Adding waitbeforeconnect to nut.dict for spell check
- docs/man/usbhid-ups.txt, drivers/usbhid-ups.c: Adding waitbeforeconnect parameter to usbhid-ups (default 0 second)

**2.741 2022-05-17 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/libshut.h, drivers/usb-common.h: drivers/libshut.h \+ usb-common.h: fix "alll" typos
- server/upsd.c: set\_exit\_flag(): sig is not UNUSED
- server/pipedebug.c: fix CRLF after merge
- include/Makefile.am: fix whitespace after merge
- drivers/clone.c: fix whitespace and comments after merge
- drivers/clone-outlet.c: fix whitespace and comments after merge
- drivers/apcsmart.c: refactor TYPE\_FD use
- docs/man/upsmon.conf.txt: fix whitespace
- common/common.c: merge mess fix (report startup success on all platforms)
- drivers/main.c: set\_exit\_flag() should be static
- clients/upsmon.c: merge mess fix (lost in translation)
- common/wincompat.c: try to avoid empty translation unit
- scripts/Windows/Makefile.am: add MAINTAINERCLEANFILES
- server/netssl.c: merge mess fix
- server/upsd.c: merge mess fix
- tools/nut-scanner/scan\_nut.c: merge mess fix
- drivers/richcomm\_usb.c: merge mess fix
- drivers/usbhid-ups.h: must not include libshut.h directly
- drivers/libusb1.c: merge mess fix
- drivers/libshut.h, drivers/libshut.h \+ usb-common.h: fix "alll" typos
- drivers/main.c: merge mess fix
- drivers/serial.c: merge fix for "First implementation of termios functions"
- clients/upssched.c: fix merge inversion
- drivers/libshut.h, include/nut\_stdint.h: include/nut\_stdint.h: fix merge markers
- configure.ac: typo fix
- clients/Makefile.am: avoid endif reminder-comments
- drivers/libshut.h, drivers/usb-common.h: drivers/libshut.h \+ usb-common.h: fix "alll" typos

**2.742 2022-05-14 Thierry Duvernoy <tduvernoy@free.fr>**

- drivers/usb-common.h: Completing libusb #define error declarations

**2.743 2022-05-13 Jim Klimov <jimklimov@gmail.com>**

- drivers/upsdrvctl.c: if we had to SIGKILL a driver, and succeeded, remove its PID file
- drivers/main.c: if an old PID file was found, say about it before killing that PID (avoid questionable "kill: No such process" with no further context)
- .circleci/config.yml: reduce the workload, do not run "default-all-errors" every time (fightwarn-all includes it anyway now)
- drivers/upsdrvctl.c: SIGKILL a driver instance if SIGTERM did not [#1423]
- .circleci/config.yml: comment to elaborate on individual vs shared ccache
- .circleci/config.yml: comment away not-working tests (alldrv)
- drivers/main.c: SIGKILL a sibling driver instance if several SIGTERMs did not [#1423]
- ci\_build.sh: fix fightwarn-all for systems without a clang-cpp in PATH
- .circleci/config.yml: BREW\_MORE packages for alldrv test
- .circleci/config.yml: rename build scenarios to reveal their aspect
- .circleci/config.yml: allow to BREW\_MORE packages in some scenarios
- NEWS, docs/nut.dict: NEWS: reflect fixes and CI for MacOS

**2.744 2022-05-12 Thierry Duvernoy <tduvernoy@free.fr>**

- drivers/usbhid-ups.c: Adding insufficient memory libusb error handling to reconnect UPS instead of doing nothing. For example, this error appears after 1 to 8 hours on an Eaton MGE 1500 UPS (0463:ffff) and causes many "Can't retrieve Report 0a: Resource temporarily unavailable" errors, followed by a passage of UPS in ups.tatus "OL OFF" (Online Off) which immediately cuts off computer power supply !!! Trying to reconnect solves this prohibitive problem

**2.745 2022-05-12 Jim Klimov <jimklimov+nut@gmail.com>**

- .circleci/config.yml: set CANBUILD\_NIT\_TESTS=yes since CircleCI VMs are single-run/single-user environments
  - .circleci/config.yml: add CI\_BUILDDIR: "obj" scenario
  - ci\_build.sh: handle CANBUILD\_NIT\_TESTS envvars and NUT\_BUILD\_CAPS=NIT... labels [follow-up to #1383]
  - .circleci/config.yml: add BUILD\_TYPE: "fightwarn-all" scenario
  - .circleci/config.yml: use different BUILD\_TYPEs to test more nuances
  - .circleci/config.yml: parameterize BUILD\_TYPE
-



**2.746 2022-05-11 Jim Klimov <jimklimov+nut@gmail.com>**

- .circleci/config.yml: report ccache stats before and after build to be sure it is used well
- .circleci/config.yml: use parameterized "osx-xcode" job to run some more scenarios - conservative about gcc-XXX versions
- .circleci/config.yml: update TODO comments
- .circleci/config.yml: use parameterized "osx-xcode" job to run some more scenarios
- .circleci/config.yml: convert "osx-xcode" job to parameterized
- .circleci/config.yml: use automatically maintained built-in CIRCLE\_JOB envvar
- .circleci/config.yml: rearrange the "job" definition for xcode to use envvars block, so it can be generalized
- .circleci/config.yml: do not push PATH to ci\_build.sh now that we have CI\_CCACHE\_SYMLINKDIR
- .circleci/config.yml: comment away homebrew-libtool experiments
- .circleci/config.yml: update TODO comments

**2.747 2022-05-10 Jim Klimov <jimklimov@gmail.com>**

- .circleci/config.yml: Add .circleci/config.yml [#1419, #917, #869]

**2.748 2022-05-10 Jim Klimov <jimklimov+nut@gmail.com>**

- .circleci/config.yml: use initial LDFLAGS="-L/usr/local/lib" explicitly
  - .circleci/config.yml: promote installed libtool to the system - hide the debug
  - .circleci/config.yml: promote installed libtool to the system - find its files for info
  - .circleci/config.yml: promote installed libtool to the system
  - ci\_build.sh: avoid losing tmp/lib in BUILD\_TYPE=default-all-errors loops
  - drivers/macosx-ups.c: avoid shadowing with hardcoded max\_capacity\_value when we have a possibly-detected one CC: @clepple
  - docs/config-prereqs.txt, docs/nut.dict: docs/config-prereqs.txt: add a chapter on MacOS with Homebrew
  - .circleci/config.yml: hotfix "warning: sem\_init is deprecated"
  - drivers/macosx-ups.c: avoid (bogus) uninitialized-use warnings by pre-initializing
  - drivers/macosx-ups.c: do not compare int and float
  - drivers/macosx-ups.c: comment and whitespace fixes
  - drivers/macosx-ups.c: do not shadow global device\_name with device\_name\_buf
  - ci\_build.sh: hotfix "directory not found for option ../tmp/lib"
  - .circleci/config.yml: hotfix -Wno-poison-system-directories
  - .circleci/config.yml: install more prerequisites
  - .circleci/config.yml: refactor to use CI\_CCACHE\_SYMLINKDIR
  - ci\_build.sh, docs/config-prereqs.txt, docs/nut.dict: ci\_build.sh: refactor to let override CI\_CCACHE\_SYMLINKDIR easily
  - drivers/dummy-ups.c: use better portable st\_mtime [fallout of #1383, fix #1415]
  - drivers/dummy-ups.c: use better portable st\_mtime [fallout of #1383, fix #1415]
-

**2.749 2022-05-10 Abel Gómez <abgolla@gmail.com>**

- data/driver.list.in, drivers/salicro-hid.c: Add link to GitHub [issue #1416](https://github.com/networkupstools/nut/issues/1416) <https://github.com/networkupstools/nut/issues/1416>

**2.750 2022-05-09 Jim Klimov <jimklimov@gmail.com>**

- docs/solaris-usb.txt, scripts/Solaris/Makefile.am, .../{reset-ups-usb-solaris.sh ⇒ reset-ups-usb-solaris.sh.sample}: scripts/Solaris/Makefile.am: distribute example reset-ups-usb-solaris.sh ... and rename the file accordingly to avoid end-user confusion
- docs/solaris-usb.txt, scripts/Solaris/reset-ups-usb-solaris.sh: docs/solaris-usb.txt: move reset-ups-usb-solaris.sh to scripts/Solaris/ ... and add some comments and sanity-checks
- docs/nut.dict, docs/solaris-usb.txt: docs/solaris-usb.txt: document use of cfgadm to disconnect and recycle the USB layer

**2.751 2022-05-08 Abel Gómez <abgolla@gmail.com>**

- data/driver.list.in, drivers/salicro-hid.c, scripts/upower/95-upower-hid.hwdb: Add support for Salicro SPS 850 ADV T

**2.752 2022-05-05 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/developers.txt: clarify that python and perl are needed but optional for running autogen.sh
- docs/download.txt: clarify that python and perl are needed but optional for running autogen.sh

**2.753 2022-04-29 Jim Klimov <jimklimov+nut@gmail.com>**

- data/driver.list.in: driver.list.in: Add HCL info for CyberPower Systems CPJ500 (USB) Closes: [#1403](#)
- data/driver.list.in: mark devices supported by "\*\_usb" drivers with "USB" port comment, where lacking
- data/driver.list.in: mark "usbhid-ups" devices with "USB" port comment, where lacking
- data/driver.list.in: mark "snmp-ups" as supported by public protocol (3\+)
- data/driver.list.in: mark "usbhid-ups" as supported by public protocol (3\+)
- data/driver.list.in: revise CPS "BR1000ELCD" support level

**2.754 2022-04-26 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/nut.dict: update dict
- docs/download.txt: link to distro packaging wiki page on NUT github
- docs/download.txt: update links to distro packaging recipes and their results
- docs/download.txt: deprecate buildbot tarballs
- drivers/libusb0.c, drivers/libusb1.c: drivers/libusb{0,1}.c: report why we could not open any HID devices Closes: [#477](#)

**2.755 2022-04-25 Jim Klimov <jimklimov@gmail.com>**

- docs/nut.dict: add wc
  - docs/nut.dict: add uniq
-

**2.756 2022-04-25 Jim Klimov <jimklimov+nut@gmail.com>**

- Jenkinsfile-dynamatrix: add a CI\_BUILDDIR=obj into docs scenario; name "out-of-tree builds" as such

**2.757 2022-04-24 Jim Klimov <jimklimov+nut@gmail.com>**

- Jenkinsfile-dynamatrix: run some tests with CI\_BUILDDIR
- .gitignore, ci\_build.sh: ci\_build.sh: prepare for CI\_BUILDDIR=obj
- ci\_build.sh: introduce CI\_BUILDDIR to handle out-of-tree builds other than distcheck
- docs/man/Makefile.am, docs/man/index.txt, docs/man/nutupsdrv.txt, docs/man/upsd.txt, docs/nut.dict: docs/man/nutupsdrv.txt \+ index.txt \+ upsd.txt: use /srv/libvirt/abuild/jenkins-nut-doc/workspace/nut-website/nut/docs//linkman-\*.txt for included data
- docs/man/Makefile.am: refactor LINKMAN\_INCLUDE\_CONSUMERS
- docs/man/Makefile.am: introduce A2X\_VERBOSE
- docs/nut-qa.txt, docs/nut.dict: docs/nut-qa.txt: mention "make check-NIT-devel" helper target
- docs/man/victronups.txt: update link to cable pinout Closes: [#1371](#)
- configure.ac: fix enableval vs withval
- drivers/bcmxcp\_usb.c, drivers/blazer\_usb.c, drivers/nutdrv\_qx.c, drivers/richcomm\_usb.c, drivers/riello\_usb.c, drivers/tripplite\_usb.c, drivers/usb-common.c, drivers/usb-common.h, drivers/usbhid-ups.c: drivers/usb-common.{h,c} and USB-capable drivers: introduce warn\_if\_bad\_usb\_port\_filename() Closes: [#1368](#)
- ci\_build.sh: disable check-NIT by default in CI runs for now

**2.758 2022-04-23 Jim Klimov <jimklimov@gmail.com>**

- data/driver.list.in: driver.list.in: Add HCL info for PowerWalker VI 750T/HID (USB) Closes: [#774](#)
  - data/driver.list.in: driver.list.in: Add HCL info for PowerWalker VI 2200 SH and 650 SHL (USB) Closes: [#646](#)
  - data/driver.list.in: driver.list.in: Add HCL info for PowerWalker VI 2200 SHL (USB) Closes: [#756](#)
  - data/driver.list.in: driver.list.in: Add HCL info for PowerWalker VI 650 SH (USB) Closes: [#473](#)
  - data/driver.list.in: driver.list.in: Add HCL info for PowerWalker Basic VI 1000 SB (USB) Closes: [#818](#)
  - data/driver.list.in: driver.list.in: Add HCL info for PowerWalker VI 3000 SCL (USB) Closes: [#971](#)
  - data/driver.list.in: driver.list.in: Add HCL info for PowerWalker VI 1200 SHL (USB) Closes: [#1270](#)
  - data/driver.list.in: driver.list.in: Add HCL info for UPS Phasak model 9465, renamed as P6N (USB) Closes: [#1187](#)
  - data/driver.list.in: driver.list.in: Add HCL info for Online-UPS Xanto S700 [[#1279](#)]
  - data/driver.list.in: driver.list.in: Add HCL info for Santak MT\*-PRO / Castle C\*K (Serial) Closes: [#1039](#)
  - data/driver.list.in: driver.list.in: Add HCL info for Digitus DN-170040, DN-170041, and Voltronic Power GalleonX9-RT LCD-1-3K (USB) Closes: [#1251](#)
  - data/driver.list.in: driver.list.in: Add HCL info for Kebo UPS-650VA (USB) from DDL
  - data/driver.list.in: driver.list.in: Add HCL info for Kebo UPS-1000D (USB) Closes: [#981](#)
  - data/driver.list.in: driver.list.in: Add HCL info for Aviem Pro 2000VA (USB) Closes: [#827](#)
  - data/driver.list.in: driver.list.in: Add HCL info for Digitus DN-170076 (USB) Closes: [#948](#)
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- data/driver.list.in: driver.list.in: Add HCL info for Ippon Back Basic 850 Euro (USB) Closes: [#802](#)
  - data/driver.list.in: driver.list.in: Add HCL info for Energy Technologies DPK1/1-3 (Serial) Closes: [#762](#)
  - data/driver.list.in: driver.list.in: Add HCL info for V7 UPS1RM2U1500-1E UPS 1500VA Rack Mount 2U (USB) Closes: [#716](#)
  - data/driver.list.in: driver.list.in: Add HCL info for Advice PRS850 and PRV700 Pro (USB) from DDL
  - data/driver.list.in: driver.list.in: Add HCL info for Advice Top V Pro 6-10K (USB) Closes: [#744](#)
  - data/driver.list.in: driver.list.in: Add HCL info for Tecnoware UPS ERA PLUS 1100 (USB) Closes: [#747](#)
  - data/driver.list.in: driver.list.in: Add HCL info for Elsist UPS Nemo2.0 160 (USB) Closes: [#719](#)
  - data/driver.list.in: driver.list.in: Add HCL info for Powercom Raptor 2000 and RPT-600AP (USB) Closes: [#633](#)
  - data/driver.list.in: driver.list.in: Add HCL info for Eaton 9PX 2000 RT (USB) Closes: [#540](#)
  - data/driver.list.in: driver.list.in: Add HCL info for Salicru SPS ONE (USB) Closes: [#554](#)
  - data/driver.list.in: driver.list.in: Add HCL info for APC SMC2200BI-BR (USB) Closes: [#557](#)
  - data/driver.list.in: driver.list.in: Update comment for APC Back-UPS Pro 1000, Model BX1000M (USB) [nut#139]
  - data/driver.list.in: driver.list.in: Add HCL info for Liebert PowerSure PSA 500 series (USB) Closes: [#601](#)
  - docs/man/usbhid-ups.txt: document some caveats with CyberPower UPSes [issues [#520](#), [#1394](#)]
  - data/driver.list.in: driver.list.in: Update for CyberPower Systems OR1500ERM1U [[#1338](#)]
  - data/driver.list.in: driver.list.in: Update comment for CyberPower Systems PR1500RT2U [[#1191](#)]
  - data/driver.list.in: driver.list.in: Add HCL info for CyberPower Systems CP850PFCLCD (USB) Closes: [#605](#)
  - data/driver.list.in: driver.list.in: Add HCL info for CyberPower Systems BL1250U (USB) Closes: [#1012](#)
  - data/driver.list.in: driver.list.in: Add HCL info for CyberPower Systems RT650EI (USB) Closes: [#453](#)
  - data/driver.list.in: driver.list.in: Add HCL info for CyberPower Systems CP1500PFCLCD (USB) Closes: [#520](#)
  - data/driver.list.in: driver.list.in: Add HCL info for CyberPower Systems BR1000ELCD (USB) Closes: [#552](#)
  - data/driver.list.in: driver.list.in: Add HCL info for CyberPower Systems UT2200E (USB) Closes: [#556](#)
  - data/driver.list.in: driver.list.in: Add HCL info for CyberPower Systems OR500LCDRM1U (USB) Closes: [#578](#)
  - data/driver.list.in: driver.list.in: Add HCL info for CyberPower Systems EC850LCD (USB) Closes: [#622](#)
  - data/driver.list.in: driver.list.in: Add HCL info for Guardian LCD 1500 AP (IGA1500LCD) (Serial) Closes: [#449](#)
  - data/driver.list.in: driver.list.in: Add HCL info for Ablerex MARS MS3000RT (Serial) Closes: [#449](#)
  - data/driver.list.in: driver.list.in: Add HCL info for APC AP9584 Serial-to-USB kit Closes: [#181](#)
  - data/driver.list.in: driver.list.in: Update comment for Tripp\_Lite SMX500RT1U (USB) [[#584](#)]
  - data/driver.list.in: driver.list.in: Add HCL info for Huawei UPS2000 series (modbus) [[#954](#) [#1066](#) [#1198](#) [#1017](#)]
  - data/driver.list.in: driver.list.in: Add HCL info for DEXP MIX 850VA (USB) Closes: [#721](#)
  - data/driver.list.in: driver.list.in: Add HCL info for CPC, ARES and Powercool models with hunnox protocol (USB) Closes: [#537](#)
  - data/driver.list.in: driver.list.in: Add HCL info for Greencell Micropower 600 (USB) Closes: [#1080](#)
  - data/driver.list.in: driver.list.in: Add HCL info for Crown CMU-SP1200IEC (USB) Closes: [#1014](#)
  - data/driver.list.in: driver.list.in: Add HCL info for DigiTECH 650VA (USB) Closes: [#674](#)
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- data/driver.list.in: driver.list.in: Add HCL info for Hunnox devices (and new protocol subdriver) (USB) [[#638](#)]
- data/driver.list.in: driver.list.in: Add HCL info for nJoy Aten PRO 3000 (SNMP) Closes: [#1281](#)
- data/driver.list.in: Update driver.list.in
- data/driver.list.in: driver.list.in: Add HCL info for nJoy Keen 600 (USB) Closes: [#867](#)

2.759 2022-04-23 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/main.c: simplify detection of `PROGNAME="lt-DRIVERNAME"` making it more reliable for some platforms
- configure.ac: fix `nut_enable_check_NIT`
- ci\_build.sh: "--enable-check-NIT" and "--enable-maintainer-mode" for developer builds without a `BUILD_TYPE`
- ci\_build.sh: "--enable-check-NIT" for CI builds
- tests/NIT/nit.sh: fix renaming typo
- tests/NIT/nit.sh: remove mktemp-ed `TESTDIR` when we exit
- tests/NIT/nit.sh: refactor with `TESTDIR`
- clients/upssched.c, common/common.c, drivers/clone-outlet.c, drivers/clone.c, drivers/dstate.c, include/common.h, server/-sockdebug.c, server/sstate.c: `check_unix_socket_filename()` to meaningfully abort when our paths are too long
- docs/man/clone.txt, docs/man/dummy-ups.txt: docs/man/clone.txt \+ dummy-ups.txt: clarify the dependency caveats Clone drivers do not require to run after upsd, but may need to start after the "real" driver whose socket they leech onto.
- tests/NIT/nit.sh: limit how long we wait for `UPS1/UPS2` to begin responding
- configure.ac, docs/configure.txt, docs/nut-qa.txt, tests/NIT/Makefile.am: tests/NIT/Makefile.am \+ configure.ac: introduce `--enable-check-NIT`
- docs/man/dummy-ups.txt: re-wrap long lines and reword
- docs/man/dummy-ups.txt: highlight that `upsrw` can not define new variables
- docs/man/dummy-ups.txt: update notes for dummy-once mode ability to re-read file only if it changes
- docs/man/dummy-ups.txt: update notes for dummy-once mode
- docs/man/clone.txt, docs/man/dummy-ups.txt: docs/man/dummy-ups.txt \+ clone.txt: cross-link two man pages to remind about similar use-cases

2.760 2022-04-22 Paweł Rapkiewicz <[pawel.rapkiewicz@gmail.com](mailto:pawel.rapkiewicz@gmail.com)>

- [illegible]

**2.761 2022-04-22 Jim Klimov <jimklimov+nut@gmail.com>**

- tests/NIT/nit.sh: testcase\_sandbox\_upsc\_query\_timer(): do not waste time if we did get the answer we want
- tests/NIT/nit.sh: testcase\_sandbox\_upsc\_query\_timer(): for slower testers out there, wait one more cycle
- tests/NIT/nit.sh: ignore message from NSS builds Those tend to add lines like Init SSL without certificate database so we should better grep for expected char sequence
- tests/NIT/nit.sh: add testgroup\_sandbox\_cppnit\_simple\_admin() to troubleshoot dummy-ups data propagation
- tests/NIT/nit.sh: testcase\_sandbox\_start\_drivers\_after\_upsd(): wait for UPS1 and UPS2 to respond
- tests/cpptest-client.cpp: allow up to 10 seconds for SET VAR to propagate into read-back value
- tests/.gitignore: GitIgnore tests/cppnit binary and logs
- docs/nut.dict: Update nut.dict
- tests/NIT/nit.sh: refactor test cases into smaller routines and groups, and allow to select NIT\_CASE optionally
- tests/NIT/nit.sh: refactor stop\_daemons()
- Makefile.am, tests/Makefile.am, tests/NIT/Makefile.am: tests/NIT/Makefile.am: extend with check-NIT-devel for iterating
- drivers/dstate.c: log start of processing in sock\_arg()
- drivers/dstate.c: whitespace fix
- tests/NIT/nit.sh: allow to tweak NUT\_DEBUG\_MIN
- tests/cpptest-client.cpp: trace values read back after setting
- tests/cpptest-client.cpp: rename "s1" original value reading
- scripts/python/Makefile.am: clean \*.pyc and *pycache/* if present

**2.762 2022-04-21 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/dummy-ups.c: fix dummy-once mode for relative path in port
  - tests/NIT/nit.sh: name the "dummy.seq" so it loops by default
  - drivers/main.c: better fix for handling of libtool-named binaries
  - tests/NIT/nit.sh: if "Error: Driver not connected" retry with UPSD started after drivers are running
  - drivers/main.c: fix the handling of libtool-named binaries
  - tests/NIT/nit.sh: "sed -i" requires an extension (may be empty, in BSD must be a separate CLI token, in others must be same token - not empty is ok for all)
  - tests/NIT/nit.sh: "sed -i" requires an extension (may be empty, in BSD must be a separate CLI token)
  - drivers/dummy-ups.c: cover exhaustive case(enum) with pragmas for diametral warnings
  - tests/NIT/nit.sh: extend with mode=... for dummy-ups [#1385]
  - NEWS, UPGRADING, docs/man/dummy-ups.txt, drivers/dummy-ups.c: dummy-ups: do re-read a "dummy-once" file, though only if it changes while the driver runs r the commit message for your changes. Lines starting
  - NEWS, UPGRADING, docs/man/dummy-ups.txt, drivers/dummy-ups.c: dummy-ups: separate MODE\_DUMMY\_ONCE from MODE\_DUMMY\_LOOP Closes: #1385
  - docs/man/dummy-ups.txt: small rewording
-

- drivers/dummy-ups.c: refactor "mode" from random defines to an enum
- include/str.h, common/str.c: add str\_ends\_with()
- tests/NIT/nit.sh: make sure ups.status is not pre-defined empty in test sandbox
- tests/cpptest-client.cpp: test\_auth\_user(): bail out if "ups.status" reply is empty
- tests/NIT/nit.sh: report DEBUG\_SLEEP mode more usefully
- tests/NIT/nit.sh: spell out 127.0.0.1 and ::1 if detected supported on local system - do not rely on ping CLI alone
- tests/NIT/nit.sh: spell out 127.0.0.1 and ::1 if detected supported on local system

## 2.763 2022-04-20 Jim Klimov <jimklimov+nut@gmail.com>

- tests/NIT/nit.sh: report issues more usefully for troubleshooting CI
  - tests/NIT/Makefile.am: use more portable clumsier code
  - drivers/main.c: accept "lt-PROGNAME" to run libtool-wrapped builds during development
  - tests/NIT/nit.sh: Avoid dummies with TIMER flip-flops for cppnit if we can
  - tests/Makefile.am: do not run "cppnit" as part of TESTS, only give a recipe to build it
  - clients/nutclient.h, tests/Makefile.am, tests/NIT/nit.sh, tests/cpptest-client.cpp: NutActiveClientTest: introduce C++ NutActiveClientTest for NIT and similar uses
  - tests/NIT/nit.sh: log OVERALL results before DEBUG\_SLEEP
  - tests/NIT/nit.sh: refactor upsd.users passwords as shell vars to ease reuse
  - tests/NIT/nit.sh: check that test\_nutclient.py was generated before running it; export NUT\_PORT just once
  - tests/NIT/nit.sh: embed weak randomization of NUT\_PORT At least this little magic is better than a hardcoded number: if several CI executors run make check at once on same host, they now have a decent chance to not collide (not guaranteed though)
  - tests/NIT/nit.sh: let caller customize NUT\_PORT
  - Makefile.am, configure.ac, tests/Makefile.am, tests/NIT/.gitignore, tests/NIT/Makefile.am: Add tests/NIT/Makefile.am for straightforward integration of the test suite
  - configure.ac, tests/Makefile.am: configure.ac: fix detection of cppunit on some platforms Note for posterity: CFLAGS go before source, LDFLAGS+LIBS after source, in g++ cmdline
  - Makefile.am: fix "make check-docs" and siblings from root dir
  - Makefile.am: let "make check-NIT" from root dir
  - tests/NIT/README, tests/NIT/nit.sh: tests/NIT: warn in docs/comments that starting pwd should be the BUILDDIR
  - tests/Makefile.am: help check-NIT pass in distcheck (cleaner)
  - tests/NIT/README, tests/NIT/nit.sh: tests/NIT/README: update a bit
  - tests/Makefile.am: help check-NIT pass in distcheck
  - docs/nut-qa.txt: mention NUT NIT and update links to Ubuntu QART
  - tests/NIT/nit.sh: make some debug noise optional
  - tests/NIT/nit.sh: typo fix for SRCDIR
  - tests/NIT/nit.sh: sanity checks for BUILDDIR
  - tests/NIT/nit.sh: bail out quickly if got no daemons to run
  - tests/Makefile.am: call NIT suite
  - tests/NIT/nit.sh: document DEBUG\_SLEEP a bit
-



**2.764 2022-04-19 Jim Klimov <jimklimov+nut@gmail.com>**

- tests/NIT/.gitignore, tests/NIT/README, tests/NIT/nit.sh: NIT: NUT Integration Tests (usable PoC) [another take at [issue #3](#)]
- clients/upsrw.c, docs/man/upsrw.txt: upsrw: accept "-l" for listing Closes: [#1382](#)
- scripts/python/module/test\_nutclient.py.in: test\_nutclient.py.in: allow to override NUT\_PORT, NUT\_USER, NUT\_PASS
- conf/ups.conf.sample: update with info from docs/man/ups.conf.txt

**2.765 2022-04-18 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/cyberpower-mib.c: update cyberpower\_power\_status[] with new values [#1377](#)
- clients/nutclient.cpp: clients/nutclient.{cpp,h}: deviceMaster()/devicePrimary(): add fallback handling with the other keyword [#840](#), [#1374](#)
- clients/nutclient.cpp, clients/nutclient.h, clients/nutclientmem.cpp, clients/nutclientmem.h, docs/man/libnutclient\_misc.txt: add PRIMARY handling [#840](#) Closes: [#1374](#)
- clients/nutclient.cpp, clients/nutclient.h, docs/man/libnutclient\_tcp.txt: clients/nutclient.{cpp,h} docs/man/libnutclient\_tcp.txt: fix timeout from long to time\_t Closes: [#1376](#)
- clients/upsc.c, clients/upsclient.c, clients/upsclient.h, clients/upscmd.c, clients/upsimage.c, clients/upslog.c, clients/upsmon.h, clients/upsrw.c, clients/upsset.c, clients/upsstats.c, docs/man/upscli\_connect.txt, drivers/dummy-ups.c: clients/upsclient.{c,h} and many clients \+ dummy-ups: fix port from int to uint16\_t Closes: [#1379](#)
- docs/man/libnutclient\_variables.txt: fix English
- clients/upsclient.h: fix whitespace
- clients/upsclient.c, clients/upsclient.h, docs/man/upscli\_readline.txt, docs/man/upscli\_sendline.txt: clients/upsclient.{c,h} docs/man/upscli\_{read,send}line.txt: fix timeout from long to time\_t Closes: [#1373](#)
- clients/nutclient.cpp, clients/nutclient.h, docs/man/libnutclient\_tcp.txt, docs/nut.dict: clients/nutclient.{cpp,h}: fix port type from unsigned short to uint16\_t Closes: [#1375](#)
- docs/man/Makefile.am: \$ (<F) is not POSIX compliant, while \$ (@F) is, go figure [#1362](#) follow-up]

**2.766 2022-04-17 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/man/Makefile.am: abstract filenames into LINKMAN\_INCLUDE\_GENERATED macro

**2.767 2022-04-16 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/man/Makefile.am: DOCBUILD\_BEGIN: work around older BSD make not seeing sources not present in builddir It seems to resolve single-source documents well, but fails to find the upsd.txt which depends on linkman\*-names.txt and build a proper relative path to it.
  - docs/man/Makefile.am: ensure linkman-drivertool\*names.txt are in builddir
  - docs/man/Makefile.am: ensure linkman-drivertool\*names.txt are in A2X\_OUTDIR
  - docs/man/Makefile.am: avoid spurious regeneration of linkman-drivertool\*names.txt whenever we reference them
  - docs/man/Makefile.am: generate linkman-drivertool\*names.txt independent of current dir being srcdir
  - ci\_build.sh: "cat" the "git diff"
-

**2.768 2022-04-15 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/man/libnutclient\_general.txt, docs/man/libnutclient\_misc.txt, docs/man/libnutclient\_tcp.txt, docs/man/libnutclient\_variables.txt, docs/man/libupsclient-config.txt, docs/nut.dict: docs/man/libnutclient\*.txt: wrap long lines, minor rephrase, bullet points
- docs/man/libnutclient\_commands.txt, docs/man/libnutclient\_devices.txt: docs/man/libnutclient\_devices.txt, libnutclient\_commands.txt: synopsis for strarr
- docs/man/libnutclient\_devices.txt: wrap long lines, minor rephrase, bullet points
- docs/man/libnutclient\_commands.txt: wrap long lines, minor rephrase, bullet points; added optional param arg in API
- docs/man/upscli\_strerror.txt: fix return type modifier to const
- docs/man/upscli\_add\_host\_cert.txt, docs/man/upscli\_cleanup.txt, docs/man/upscli\_disconnect.txt, docs/man/upscli\_fd.txt, docs/man/upscli\_get.txt, docs/man/upscli\_init.txt, docs/man/upscli\_list\_next.txt, docs/man/upscli\_readline.txt, docs/man/upscli\_sendline.txt, docs/man/upscli\_splitaddr.txt: docs/man/upscli\*.txt: wrap long lines, minor rephrase
- docs/man/nutscan\_init.txt, docs/man/nutscan\_new\_device.txt, docs/man/nutscan\_scan\_usb.txt: docs/man/nutscan\*.txt: document methods with (void) arg list as such
- docs/man/Makefile.am, docs/man/index.txt, docs/man/nutscan.txt, docs/man/nutscan\_add\_device\_to\_device.txt, docs/man/nutscan\_add\_device\_to\_ip.txt, docs/man/nutscan\_display\_parsable.txt, docs/man/nutscan\_display\_ups\_conf.txt, docs/man/nutscan\_get\_serial\_ports\_list.txt, docs/man/nutscan\_init.txt, docs/man/nutscan\_new\_device.txt, docs/man/nutscan\_scan\_avahi.txt, docs/man/nutscan\_scan\_eaton\_serial.txt, docs/man/nutscan\_scan\_ipmi.txt, docs/man/nutscan\_scan\_nut.txt, docs/man/nutscan\_scan\_usb.txt, docs/man/nutscan\_scan\_xml\_http.txt, docs/man/nutscan\_scan\_xml\_http\_range.txt: docs/man/nutscan\*.txt: document the method which got extended from original nutscan\_scan\_xml\_http() doing just a local broadcast
- docs/man/nutscan\_scan\_ipmi.txt: document the method which now is implemented
- docs/man/nutscan.txt, docs/man/nutscan\_add\_device\_to\_device.txt, docs/man/nutscan\_add\_option\_to\_device.txt, docs/man/nutscan\_free\_device.txt, docs/man/nutscan\_get\_serial\_ports\_list.txt, docs/man/nutscan\_init.txt, docs/man/nutscan\_new\_device.txt, docs/man/nutscan\_scan\_avahi.txt, docs/man/nutscan\_scan\_eaton\_serial.txt, docs/man/nutscan\_scan\_nut.txt, docs/man/nutscan\_scan\_usb.txt, docs/man/nutscan\_scan\_xml\_http.txt: docs/man/nutscan\*.txt: wrap long lines, minor rephrase, fix timeouts to useconds\_t
- docs/nut.dict: spellcheck drivertool
- docs/man/apcsmart-old.txt, docs/man/apcsmart.txt, docs/man/asem.txt, docs/man/bcmxcp\_usb.txt, docs/man/liebert-esp2.txt, docs/man/macosex-ups.txt, docs/man/microsol-apc.txt, docs/man/nut.conf.txt, docs/man/nutdrv\_atcl\_usb.txt, docs/man/nutdrv\_qx.txt, docs/man/nutdrv\_siemens\_sitop.txt, docs/man/oneac.txt, docs/man/optiups.txt, docs/man/upscode2.txt, docs/man/usbhid-ups.txt: docs/man/\*.txt: reformat AUTHOR(S) and INTERNET RESOURCES blocks to common style
- docs/man/upsdrvsvccctl.txt: list Jim Klimov as the AUTHOR
- docs/man/nut-driver-enumerator.txt: list Jim Klimov as the AUTHOR
- docs/man/snmp-ups.txt: list AUTHORS as a bulleted list and add Jim Klimov
- docs/man/snmp-ups.txt: wrap long lines and reword a bit
- docs/man/optiups.txt: wrap long lines
- docs/man/phoenixcontact\_modbus.txt: wrap long lines
- docs/man/belkinunv.txt: add link to protocol description copy on NUT site
- docs/support.txt: mention github instead of subversion
- docs/man/.gitignore, docs/man/Makefile.am, docs/man/index.txt, docs/man/nutupsdrv.txt, docs/man/upsd.txt: docs/man/index.txt, upsd.txt, nutupsdrv.txt: generate the up-to-date list of drivers, current for each iteration
- docs/man/index.txt, docs/man/nutupsdrv.txt, docs/man/upsd.txt: docs/man/upsd.txt, nutupsdrv.txt, index.txt: move common nutupsdrv[8] from the bulk of driver list

- docs/man/nutupsdrv.txt, docs/man/upsd.txt: docs/man/upsd.txt, nutupsdrv.txt: generate current list of drivers
- docs/man/index.txt: generate current list of drivers, separate "Driver Control" title
- docs/man/nutupsdrv.txt, docs/man/upsd.txt: docs/man/upsd.txt, nutupsdrv.txt: reformat lists of drivers and tools to bullet lists
- docs/Makefile.am: DOCBUILD\_BEGIN: symlink images/ ONLY for PDF generation
- ci\_build.sh: add notes to Consider `--enable-maintainer-mode`
- .gitignore: GitIgnore IDEA metadata files
- docs/.gitignore: GitIgnore more intermediate XML files from docs generation

## 2.769 2022-04-14 Jim Klimov <jimklimov@gmail.com>

- docs/Makefile.am: A2X\_COMMON\_OPTS: use "--attribute=..." consistently
- docs/Makefile.am: have "images/" in A2X\_OUTDIR (fallout of #1152) Closes: #1365

## 2.770 2022-04-14 Jim Klimov <jimklimov+nut@gmail.com>

- docs/man/nutscan\_display\_parsable.txt, docs/man/nutscan\_display\_ups\_conf.txt, docs/man/nutscan\_free\_device.txt, docs/man/nutscan\*.txt: fix formatting and typos
  - docs/man/upscli\_get.txt, docs/man/upscli\_init.txt, docs/man/upscli\_list\_start.txt: docs/man/upscli\*.txt: fix sample source formatting
  - docs/man/upsmon.txt: reword a dangling sentence
  - docs/man/triplite\_usb.txt: fix formatting
  - docs/man/riello\_ser.txt: fix formatting
  - docs/man/riello\_usb.txt: fix formatting
  - docs/man/snmp-ups.txt: fix sample source formatting
  - docs/man/socomec\_jbus.txt: fix formatting and typos
  - docs/man/Makefile.am, docs/nut.dict: docs/man/Makefile.am: list the socomec\_jbus.txt
  - docs/man/pijuice.txt: fix formatting
  - docs/man/nutdrv\_qx.txt: fix formatting
  - docs/man/nutdrv\_atcl\_usb.txt: fix formatting
  - docs/man/nut.conf.txt: fix sample source formatting
  - docs/man/mge-utalk.txt: fix formatting
  - docs/man/liebert-esp2.txt: fix formatting
  - docs/man/clone.txt: fix sample source formatting
  - docs/man/bestups.txt, docs/man/blazer-common.txt, docs/man/masterguard.txt: docs/man/blazer-common.txt, masterguard.txt, bestups.txt: fix formatting [#1361]
  - docs/man/adelsystem\_cbi.txt: fix formatting
  - docs/sock-protocol.txt: fix formatting
  - docs/snmp-subdrivers.txt: small typo
-

- docs/packager-guide.txt: reshuffle known names
- docs/nut-qa.txt: list a few more tools we use
- TODO, docs/nut-qa.txt: Fix remaining links to asciidoc.org
- docs/nut-names.txt: fix table formatting
- docs/new-clients.txt: fix sample source formatting
- docs/net-protocol.txt: fix version table formatting
- docs/FAQ.txt: fix formatting, extend some notes
- docs/nut.dict: Update nut.dict
- docs/developers.txt: fix formatting, extend some notes
- docs/developer-guide.txt: fix formatting; update URL to evolution500.seq
- docs/design.txt: fix formatting; note FIXMEs for documenting TRACKING support
- docs/daisychain.txt: fix formatting
- drivers/snmp-ups.h: update comment to clarify the meaning of SU\_TYPE\_DAISSY\_1 and SU\_TYPE\_DAISSY\_2
- docs/configure.txt: fix formatting, add titles, extend some notes
- docs/configure.txt: add a section on modbus drivers
- docs/configure.txt: link to powerman project
- docs/configure.txt: fix formatting, add driver type titles, extend some notes
- docs/config-prereqs.txt: fix formatting, extend some notes
- docs/solaris-usb.txt: drop suggestions about building special libusb-1.0/0.1 branches
- docs/solaris-usb.txt: fix formatting, extend some notes
- docs/solaris-usb.txt: add a NOTE for USB drivers ignoring port option [#1368]
- docs/config-notes.txt: fix formatting, extend some notes and warnings, and service-driven life-cycle
- docs/config-notes.txt: document ALLOW\_NO\_DEVICE for upsd.conf [#766, #837]
- docs/config-notes.txt: reformat and extend the NOTE for USB drivers ignoring port option [#1368]
- ci\_build.sh, docs/ci-farm-lxc-setup.txt, docs/nut.dict: docs/ci-farm-lxc-setup.txt: fix formatting, extend on Jenkins agent setup
- ci\_build.sh: use "gmake" for "./ci\_build.sh spellcheck" if available and no particular MAKE was requested - fall back to "make" if "gmake" is not available

#### 2.771 2022-04-13 Jim Klimov <jimklimov+nut@gmail.com>

- docs/asciidoc.txt: update link to the Asciidoc Manual (and project now on github)

#### 2.772 2022-04-12 Jim Klimov <jimklimov@gmail.com>

- Makefile.am: define dependencies between recipes for dist\* and package; tarball, sig and checksum filenames
-

**2.773 2022-04-10 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/daisychain.txt, docs/man/adelsystem\_cbi.txt, docs/man/al175.txt, docs/man/apcsmart-old.txt, docs/man/apcsmart.txt, docs/man/ups.txt, docs/man/asem.txt, docs/man/bcmxcp.txt, docs/man/bcmxcp\_usb.txt, docs/man/belkin.txt, docs/man/belkinunv.txt, docs/man/bestfcom.txt, docs/man/bestfortress.txt, docs/man/bestuferrups.txt, docs/man/bestups.txt, docs/man/blazer-common.txt, docs/man/clone.txt, docs/man/dummy-ups.txt, docs/man/etapro.txt, docs/man/everups.txt, docs/man/gamatronic.txt, docs/man/generic\_modbus.txt, docs/man/genericups.txt, docs/man/hosts.conf.txt, docs/man/huawei-ups2000.txt, docs/man/isbmex.txt, docs/man/ivtsd.txt, docs/man/libnutclient.txt, docs/man/libnutclient\_commands.txt, docs/man/libnutclient\_devices.txt, docs/man/libnutclient\_general.txt, docs/man/libnutclient\_misc.txt, docs/man/libnutclient\_tcp.txt, docs/man/libnutclient\_variables.txt, docs/man/libupsclient-config.txt, docs/man/liebert-esp2.txt, docs/man/liebert.txt, docs/man/macosex-ups.txt, docs/man/masterguard.txt, docs/man/metasys.txt, docs/man/mge-shut.txt, docs/man/mge-utalk.txt, docs/man/microdowell.txt, docs/man/microsol-apc.txt, docs/man/netxml-ups.txt, docs/man/nut-driver-enumerator.txt, docs/man/nut-ipmipsu.txt, docs/man/nut-recorder.txt, docs/man/nut-scanner.txt, docs/man/nut.conf.txt, docs/man/nutdrv\_atcl\_usb.txt, docs/man/nutdrv\_siemens\_sitop.txt, docs/man/nutscan\_add\_device\_to\_device.txt, docs/man/nutscan\_add\_option\_to\_device.txt, docs/man/nutscan\_cidr\_to\_ip.txt, docs/man/nutscan\_display\_parsable.txt, docs/man/nutscan\_display\_ups\_conf.txt, docs/man/nutscan\_free\_device.txt, docs/man/nutscan\_init.txt, docs/man/nutscan\_new\_device.txt, docs/man/nutscan\_scan\_avahi.txt, docs/man/nutscan\_scan\_eaton\_serial.txt, docs/man/nutscan\_scan\_ipmi.txt, docs/man/nutscan\_scan\_nut.txt, docs/man/nutscan\_scan\_snmp.txt, docs/man/nutscan\_scan\_usb.txt, docs/man/nutscan\_scan\_xml\_http.txt, docs/man/nutupsdrv.txt, docs/man/oneac.txt, docs/man/optiups.txt, docs/man/phoenix-contact\_modbus.txt, docs/man/pijuice.txt, docs/man/powercom.txt, docs/man/powerman-pdu.txt, docs/man/powerpanel.txt, docs/man/rhino.txt, docs/man/richcomm\_usb.txt, docs/man/riello\_ser.txt, docs/man/riello\_usb.txt, docs/man/safenet.txt, docs/man/skel.txt, docs/man/snmp-ups.txt, docs/man/socomec\_jbus.txt, docs/man/solis.txt, docs/man/tripplite.txt, docs/man/tripplite\_usb.txt, docs/man/tripplitesu.txt, docs/man/ups.conf.txt, docs/man/upsc.txt, docs/man/upscli\_add\_host\_cert.txt, docs/man/upscli\_cleanup.txt, docs/man/upscli\_connect.txt, docs/man/upscli\_disconnect.txt, docs/man/upscli\_get.txt, docs/man/upscli\_init.txt, docs/man/upscli\_list\_next.txt, docs/man/upscli\_list\_start.txt, docs/man/upscli\_readline.txt, docs/man/upscli\_sendline.txt, docs/man/upscli\_splitnan.txt, docs/man/upsclient.txt, docs/man/upscmd.txt, docs/man/upscode2.txt, docs/man/upsd.conf.txt, docs/man/upsd.txt, docs/man/upsd.use.txt, docs/man/upsdrvctl.txt, docs/man/upsdrvsvctl.txt, docs/man/upsimage.cgi.txt, docs/man/upslog.txt, docs/man/upsmon.conf.txt, docs/man/upsmon.txt, docs/man/upsrw.txt, docs/man/upssched.conf.txt, docs/man/upssched.txt, docs/man/upsset.cgi.txt, docs/man/upsset.conf.txt, docs/man/upsstats.cgi.txt, docs/man/upsstats.html.txt, docs/man/usbhid-ups.txt, docs/man/victronups.txt, docs/nut-names.txt, docs/packager-guide.txt: docs/man: be sure to keep a blank line after SYNOPSIS and other titles [#1362]
- docs/FAQ.txt: clarify about nutdrv\_qx
- UPGRADING: detail about "OBSOLETION WARNING" for "Megatec Q\*"
- docs/man/bestups.txt, docs/man/blazer-common.txt, docs/man/masterguard.txt, drivers/bestups.c, drivers/blazer.c, drivers/masterguard.c: Report deprecation messages when starting older Qx drivers And document similarly in their man pages (bestups, blazer, masterguard)
- docs/FAQ.txt, docs/nut.dict: docs/FAQ.txt: add more reasons and symptoms that a running driver disappears
- docs/FAQ.txt, docs/nut.dict: docs/FAQ.txt: suggest checking Linux USB HID Quirk [#630]
- ci\_build.sh: use "gmake" for ".ci\_build.sh spellcheck" if available and no particular MAKE was requested
- docs/FAQ.txt, docs/nut.dict: docs/FAQ.txt: suggest how to pick drivers for bogus vendor IDs
- drivers/usbhid-ups.c: bump version for #1356 and #1359
- drivers/tripplite\_usb.c: bump version for #584
- drivers/mge-hid.c: bump version for #1357

**2.774 2022-04-09 Stuart Henderson <sthen@users.noreply.github.com>**

- drivers/usbhid-ups.c: reinstate handling for STATUS(ONLINE) in usbhid-ups The recent onlinedischarge changes removed support for some STATUS(ONLINE) cases, affecting at least CP1300EPFCLCD - this brings them back.

**2.775 2022-04-08 Jim Klimov <jimklimov@gmail.com>**

- NEWS: tripplite\_usb recognizes "3005" protocol for NUT v2.7.5

**2.776 2022-04-08 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS: note Liebert/Phoenixtec vs MGE HID handling of VendorID 0x06da
- drivers/mge-hid.c: mge\_claim(): test that VendorID==PHOENIXTEC 0x06da has also Vendor or Product containing "AEG"
- data/driver.list.in: update for "PowerWalker VFI 2000 TGS" via "usbhid-ups" [#564]
- docs/man/usbhid-ups.txt: update for "some PowerWalker models"
- NEWS, docs/nut.dict: NEWS: improve PowerWalker VFI 2000 TGS support in NUT v2.7.5
- drivers/liebert-hid.c, drivers/mge-hid.c: drivers/liebert-hid.c: get PowerWalker VFI 2000 TGS working, read values correctly  
This reverts commit c38b45a56a9d1283657d62a9fa1ed1af5daa1ba2 which added such support into mge-hid.c (at risk to proper support of earlier handled devices by various vendors), and transplants the new lines into liebert-hid.c See [issue #560](#) for a HID walk from the device in question; data like that may help expand liebert-hid.c later (its table seems to map a lot less field names than mge-hid.c, but not sure if "true" Liebert/Phoenixtec HID devices support the rest).

**2.777 2022-04-07 Jim Klimov <jimklimov@gmail.com>**

- docs/nut.dict: update spellchecker
- docs/nut.dict: update spellchecker

**2.778 2022-04-07 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/usbhid-ups.c: instcmd(): do not risk NULL-dereference debugging about "using Path" with a NULL hidpath (just in case) [#1346]
- drivers/usbhid-ups.c: instcmd(): do not risk NULL-dereference debugging about "using Path" too early [#1346]
- drivers/usbhid-ups.c: instcmd(): wrap some long lines

**2.779 2022-04-05 Jim Klimov <jimklimov@gmail.com>**

- docs/man/upsmon.conf.txt: fix markup (pluses make emphasis and xmllint goes upset)

**2.780 2022-04-04 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac: prepare for next iterations after release of NUT v2.8.0
  - configure.ac: prepare for next iterations after release of NUT v2.8.0
  - configure.ac: cut the release of NUT v2.8.0
  - tools/nut-scanner/Makefile.am, clients/Makefile.am: bump "version-info" for NUT v2.8.0 Development since 2.7.4 release included changes to code structure, fought warnings, and might impact ABI/API by the changes to arguments (specific integer types and size\_t vs. architecture-dependent choice).
  - configure.ac: cut the release of NUT v2.8.0
  - tools/nut-scanner/Makefile.am, clients/Makefile.am: bump "version-info" for NUT v2.8.0 Development since 2.7.4 release included changes to code structure, fought warnings, and might impact ABI/API by the changes to arguments (specific integer types and size\_t vs. architecture-dependent choice).
  - configure.ac, include/Makefile.am: avoid picking "vX.Y.Z-signed" tags more actively
  - configure.ac, include/Makefile.am: avoid picking "vX.Y.Z-signed" tags, only "vX.Y.Z" name denotes the release officially
-

- `configure.ac`: fall back to exclude-only filter of "git describe" tags if `autoconf/m4/shell` messes up the "match" ones
- `INSTALL.nut`: add another perspective on packages vs source builds; refer to `config-prereqs.txt`
- `INSTALL.nut`: trim trailing spaces
- `README`: trim trailing spaces
- `README`: clarify use of github
- `docs/config-prereqs.txt`, `docs/nut.dict`: `docs/config-prereqs.txt`: clarify pre-installation of python and perl
- `docs/config-prereqs.txt`: clarify that non-GNU makes should work well

## 2.781 2022-04-02 Jim Klimov <jimklimov+nut@gmail.com>

- `scripts/python/app/NUT-Monitor`: fix typo, thank CI
- `UPGRADING`: detail the Py2/Py3 packages
- `UPGRADING`: make note of systemd and Py2/3 changes on top for packagers to see
- `NEWS`: detail the split of NUT-Monitor and new wrapper script
- `scripts/python/app/README`: update with sections; list Desktop menu integration and Kudos
- `scripts/python/app/.gitignore`, `scripts/python/app/NUT-Monitor`, `scripts/python/app/nut-monitor.desktop`: Introduce new NUT-Monitor name-holder as a wrapping script to pick usable implementation
- `scripts/python/app/.gitignore`: `GitIgnore` newly named variants of NUT-Monitor-py2gtk2 and NUT-Monitor-py3qt5
- `scripts/python/app/README`: document how to get localized UI in dev/testing
- `scripts/python/app/README`: document how to run UI app in-place
- `m4/nut_check_python.m4`: extend list of some python interpreter filenames
- `configure.ac`, `scripts/python/Makefile.am`, `scripts/python/app/{NUT-Monitor.in ⇒ NUT-Monitor-py2gtk2.in}`, `scripts/python/app/nut-monitor-py2gtk2.desktop`, `scripts/python/app/nut-monitor.desktop`, `scripts/python/app/{ ⇒ ui}/gui-1.3.glade`, `scripts/python/app/{ ⇒ ui}/gui-1.3.glade.h`: Rename NUT-Monitor UI app to NUT-Monitor-py2gtk2
- `configure.ac`, `scripts/python/Makefile.am`, `scripts/python/app/{NUT-Monitor.in ⇒ NUT-Monitor-py3qt5.in}`, `scripts/python/app/nut-monitor-py3qt5.desktop`, `scripts/python/app/nut-monitor.desktop`: Rename modernized NUT-Monitor UI app to NUT-Monitor-py3qt5

## 2.782 2022-04-01 Jim Klimov <jimklimov+nut@gmail.com>

- `scripts/python/README`: clarify that `test_nutclient.py` requires an `upsd` running
  - `scripts/python/module/PyNUT.py.in`: fix typo (fallout of #840)
  - `docs/config-prereqs.txt`: fix typos in OpenIndiana chapter
  - `NEWS`, `docs/net-protocol.txt`, `docs/nut.dict`, `server/netcmds.h`: Add "PROTVER" as alias to "NETVER" for NUT v2.8.0 Closes: #1347
-



**2.783 2022-03-31 Jim Klimov <jimklimov+nut@gmail.com>**

- Makefile.am, docs/Makefile.am, docs/man/Makefile.am: {.,docs,docs/man}/Makefile.am: add "all-man" target to build all possible man pages (vs ones for enabled drivers), and weave this and check targets to parent makefiles
- ci\_build.sh: introduce shortcut for BUILD\_TYPE=fightwarn-all
- ci\_build.sh: in BUILD\_TYPE=default-all-errors report visibly when no failures happened
- m4/nut\_compiler\_family.m4: treat /usr/pkg/include as -isystem
- common/parseconf.c, common/str.c, drivers/apcsmart-old.c, drivers/apcsmart.c, drivers/mge-utalk.c, drivers/serial.c, drivers/snmp-ups.c, server/conf.c: Cast (size\_t)(char) for isprint(), isspace(), isdigit(), toupper(), etc. who may be macros and use it as array subscript (due to sys/ctype\_inline.h)

**2.784 2022-03-30 Jim Klimov <jimklimov+nut@gmail.com>**

- autogen.sh: suggest to export PYTHON=python-x.y
- autogen.sh: detect more python-x.y filenames
- docs/config-prereqs.txt, docs/nut.dict: docs/config-prereqs.txt: add chapter for NetBSD 9.2 builder setup
- docs/config-prereqs.txt: drop bogus command (copy-paste typo)

**2.785 2022-03-29 Jim Klimov <jimklimov@gmail.com>**

- .github/pull\_request\_template.md: Update pull\_request\_template.md

**2.786 2022-03-28 Jim Klimov <jimklimov+nut@gmail.com>**

- ci\_build.sh: recognize more "\*bsd" CI\_OS\_NAME values
- ci\_build.sh: do not make noise about non-ubiquitous options to "uname" program
- drivers/usbhid-ups.c: set the onlinedischarge variable based on flag presence
- drivers/usbhid-ups.c: drop DEFAULT\_ONLINEDISCHARGE to match "VAR\_FLAG" semantics
- docs/nut.dict: add onlinedischarge
- NEWS: clarify that NUT 2.8.0 is new name for old planned NUT 2.7.5
- NEWS: added usbhid-ups onlinedischarge for NUT v2.7.5
- docs/man/usbhid-ups.txt: document onlinedischarge
- drivers/usbhid-ups.c: fix var usage for upsname
- drivers/usbhid-ups.c: fix format string for "onlinedischarge" help

**2.787 2022-03-28 Benjamin Berg <bberg@redhat.com>**

- scripts/upower/95-upower-hid.hwdb, scripts/upower/95-upower-hid.rules, tools/nut-usbinfo.pl: tools/nut-usbinfo.pl: Use hwdb for UPower rules

**2.788 2022-03-26 Jim Klimov <jimklimov+nut@gmail.com>**

- ci\_build.sh: default to clang if also available when default gcc is too old
-

**2.789 2022-03-25 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/config-prereqs.txt: update openbsd tools for man-page builds
- Jenkinsfile-dynamatrix: avoid failure-prone build toolkits for manpage tests
- m4/nut\_compiler\_family.m4: avoid configure noise message
- m4/ax\_check\_compile\_flag.m4: extend to check conftest.err log about unsupported flags
- Jenkinsfile-dynamatrix: define axisCombos\_COMPILER\_GCC\_TOO\_OLD near other compiler-related combos
- Jenkinsfile-dynamatrix: fix scenarios with "non-fatal warnings" that had BUILD\_WARNFATAL=yes anyway (copy-paste issue)

**2.790 2022-03-24 Jim Klimov <jimklimov+nut@gmail.com>**

- Jenkinsfile-dynamatrix: avoid even running axisCombos\_COMPILER\_GCC\_TOO\_OLD where we require fatal warnings
- configure.ac: for very old GCC where we are not in control of warnings, make them non-fatal always (for "auto" level)
- drivers/libhid.c: clang-3.4 does not know "-Wtautological-type-limit-compare" either
- Jenkinsfile-dynamatrix: make use of dsbcStageTimeoutSettings

**2.791 2022-03-23 Yifeng Li <tomli@tomli.me>**

- drivers/huawei-ups2000.c: huawei-ups2000.c: ups2000\_read\_serial(): documenting the useless range-check.
- drivers/huawei-ups2000.c: huawei-ups2000.c: remove useless CRC range check After crc16() has been modified to accept a size\_t length, it's unnecessary to check whether the input length is greater than UINT16\_MAX. Also, the check on whether ident\_response\_len is at least as long as the IDENT\_RESPONSE\_CRC\_LEN is useless, since this condition is already implied by the previous check in step 2, it's thus removed.
- drivers/huawei-ups2000.c: huawei-ups2000.c: crc16(): use size\_t instead of uint16\_t. This removes the unnecessary casts in between. Also, size\_t is semantically more correct than uint16\_t.
- drivers/huawei-ups2000.c: huawei-ups2000.c: ups2000\_device\_identification(): remove superfluous casts in crc16 calculations The initial code didn't cast to uint16\_t and was certainly a bug, but to fix that, only a single cast is needed, not three casts.
- drivers/huawei-ups2000.c: huawei-ups2000.c: crc16(): remove superfluous casts to uint16\_t when bit-shifting The initial code didn't cast to uint16\_t and was certainly a bug, but to fix that, only a single cast is needed, not three casts.

**2.792 2022-03-23 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac: with nut\_enable\_warnings=auto, avoid fatal warnings with GCC 4.3 or older (no support for diag pragmas)
  - configure.ac: report initial nut\_enable\_warnings (default or argument)
  - configure.ac: pre-set nut\_enable\_warnings=auto by default (not hardcoded "medium")
  - ci\_build.sh: set BUILD\_WARNOPT and BUILD\_WARNFATAL to "auto" for BUILD\_TYPE="fightwarn"\* shortcuts (survive antique compilers, default to medium/fatal normally)
  - ci\_build.sh: comment BUILD\_WARNOPT setting for BUILD\_TYPE="fightwarn"\* shortcuts
  - m4/nut\_compiler\_family.m4: enable back the "-isystem" tuning to not complain about packaged third-party headers
  - drivers/libhid.c: make use of HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_TAUTOLOGICAL\_TYPE\_LIMIT\_COMPARE (clang-6.0.0 of OpenBSD 6.4)
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- m4/ax\_c\_pragmas.m4: introduce [HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_TAUTOLOGICAL\_TYPE\_LIMIT\_COMPA
- configure.ac: specify AC\_PREREQ([2.64])
- m4/nut\_check\_libgd.m4: fix detection of gdImagePng() with additional link requirements
- configure.ac: document practical requirement for AC\_PREREQ(2.64)
- NEWS, UPGRADING, docs/config-notes.txt, docs/man/upscmd.txt, docs/man/upswr.txt: docs, NEWS, UPGRADING: re-name 2.7.5 to 2.8.0 in text that appeared after 2.7.4
- docs/net-protocol.txt: document "PRIMARY" as alias to "MASTER"
- docs/net-protocol.txt: bump next release from 2.7.5 to 2.8.0
- configure.ac: bump NUT\_NETVERSION to 1.3 to match docs/net-protocol.txt

### 2.793 2022-03-21 Jim Klimov <jimklimov+nut@gmail.com>

- scripts/subdriver/gen-snmp-subdriver.sh: fix back markup for mib2nut\_info\_t lines Follow-up for #1327 Thanks to @aquette

### 2.794 2022-03-19 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/nutdrv\_qx.c: qx\_ups\_walk(): log the change of estimated remaining runtime
- NEWS: nutdrv\_qx: enhanced estimation of remaining battery runtime for NUT v2.7.5
- drivers/nutdrv\_qx.c: comment about source and data for estimated runtime corrections
- drivers/nutdrv\_qx.c: fix trailing whitespace
- ci\_build.sh: when parsing BUILD\_TYPE=fightwarn, do not default NUT\_SSL\_VARIANTS and NUT\_USB\_VARIANTS to "auto" - so building just one variant at most, even if agent supports more
- drivers/nutdrv\_qx.c: snr\_command(): adapt to usb\_ctrl\_charbuf

### 2.795 2022-03-16 Jim Klimov <jimklimov@gmail.com>

- NEWS: added driver adelsystem\_cbi for NUT v2.7.5
- drivers/adelsystem\_cbi.h: functions implemented in a header should be static
- drivers/adelsystem\_cbi.c: extend pragmas for covered/required "default" case to work with clang-3.4

### 2.796 2022-03-16 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/libhid.h, drivers/usbhid-ups.c: drivers/libhid.h, usbhid-ups.c: define HID\_DEV\_HANDLE\_CLOSED usable for both SHUT and USB cases

### 2.797 2022-03-15 Jim Klimov <jimklimov@gmail.com>

- ci\_build.sh: if we only build USB variant(s), do not shy away from testing some SSL and whatever drivers we can
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**2.798 2022-03-15 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/libusb0.c, drivers/libusb1.c: drivers/libusb{0,1}.c: retry getting Manufacturer/Product/Serial a few times if failed on the first Kudos to Sam Varshavchik for proposing this code change in discussion <https://github.com/networkupstools/nut/issues/-414>
- drivers/usbhid-ups.c: try to close libusb handle before reconnecting (from discussion of [issue #414](#))
- docs/config-prereqs.txt: currently refrain from clang-13 in OI
- docs/config-prereqs.txt: mark aspell as recommended (it is not big)
- docs/config-prereqs.txt: update instructions for symlinks on OI
- docs/config-prereqs.txt: fix typos in instructions for OpenIndiana, and update for new toolkits available in 2022

**2.799 2022-03-12 juantonio <admin@ofi.linkpc.net>**

- drivers/salicro-hid.c: Add tested descriptors for Salicro Twin Pro 2

**2.800 2022-03-12 Jim Klimov <jimklimov@gmail.com>**

- ci\_build.sh: add support for CI\_CROSSBUILD\_HOST and/or CI\_CROSSBUILD\_TARGET settings [[#1294](#), [#1289](#), [#1334](#)]
- ci\_build.sh: check for "gd" as one of names gdlb can go by
- ci\_build.sh: use PKG\_CONFIG variable if provided (fall back to pkg-config from PATH, but only for this script itself) [[#710](#)]
- drivers/salicro-hid.c: Update salicro-hid.c Cosmetic fixes
- m4/nut\_check\_libnetsnmp.m4: improve checks for actually present priv/auth protocols [[#1289](#)] Great thanks to @eklinedi on GitHub for finding the issue and investigating ways to fix it
- drivers/snmp-ups.h: net-snmp after v5.9.1 does not declare ONE\_SEC that our code uses; stash the definition
- configure.ac, m4/ax\_c\_pragmas.m4, m4/ax\_run\_or\_link\_ifelse.m4, m4/nut\_compiler\_family.m4: Introduce m4/ax\_run\_or\_link\_ifelse to facilitate cross-builds [[#1289](#)]
- ci\_build.sh: report OS\_\* envvar values if passed by caller
- ci\_build.sh: expand a bit CI\_OS\_HINT detection on linux systems

**2.801 2022-03-11 Jim Klimov <jimklimov@gmail.com>**

- m4/nut\_compiler\_family.m4: quiesce -Wreserved-identifier (clang 13\+) that acts up on system headers
- drivers/riello.c: riello\_parse\_re(): assign Pout#W and Pout#VA from pom\_long not pom\_word
- drivers/belkinunv.c: instcmd(): find use for "r" to at least report failed cmds

**2.802 2022-03-11 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/config-prereqs.txt: rearrange packages to not require heavy ones by default dependency footprint (aspell, docs generation and libgd)
  - server/netuser.c: copy-paste typo fix
  - NEWS, UPGRADING: NEWS: rename pending NUT release from 2.7.5 to 2.8.0 (config files using new keywords are not backwards-compatible, not usable by old binaries)
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- NEWS: added battery.mfr.date APC HID UPS setting for NUT v2.7.5
- NEWS, docs/nut.dict: NEWS: added socomec\_jbus driver for NUT v2.7.5
- server/netuser.c: net\_master(): provide more details about client using deprecated commands
- docs/net-protocol.txt: update for "PRIMARY" netcmd support (alias of "MASTER") [[issue #840](#)]
- NEWS: update for "PRIMARY" netcmd support (alias of "MASTER") [[issue #840](#)]
- scripts/python/module/PyNUT.py.in, server/netcmds.h, server/netuser.c, server/netuser.h: netcmds.h, netuser.{c,h}, PyNUT.py.in: deprecate protocol "MASTER" command in favor of "PRIMARY" [[issue #840](#)]
- server/upsd.c: check\_command(): instrument with upsdebugx()
- server/netuser.c: net\_login(): instrument with upsdebugx()
- clients/upsmon.c: apply\_for\_primary(): request elevation by PRIMARY, fall back to MASTER (for older upsd builds)
- NEWS, UPGRADING: NEWS: rename pending NUT release from 2.7.5 to 2.8.0 (config files using new keywords are not backwards-compatible, not usable by old binaries)

### 2.803 2022-03-10 Jim Klimov <[jimklimov@gmail.com](mailto:jimklimov@gmail.com)>

- scripts/subdriver/gen-snmplib-subdriver.sh: Update gen-snmplib-subdriver.sh Quote variable expansions; replace `echo -n` with a more portable `printf`

### 2.804 2022-03-10 Jim Klimov <[jimklimov+nut@gmail.com](mailto:jimklimov+nut@gmail.com)>

- scripts/subdriver/gen-snmplib-subdriver.sh: gen-snmplib-subdriver.sh: put back indented CFILE markup (fix here-docs, instead of unmaintainable `printf`)
- scripts/subdriver/gen-snmplib-subdriver.sh: gen-snmplib-subdriver.sh: fix valid chars HOSTNAME input (e.g. IP)

### 2.805 2022-03-10 Arnaud Quette <[ArnaudQuette@eaton.com](mailto:ArnaudQuette@eaton.com)>

- scripts/subdriver/gen-snmplib-subdriver.sh: SNMP subdriver generation script: minor reformatting
- scripts/subdriver/gen-snmplib-subdriver.sh: SNMP subdriver generation script: fixes and improvements

### 2.806 2022-03-08 Thanos Chatziathanassiou <[tchatzi@arx.net](mailto:tchatzi@arx.net)>

- docs/man/socomec\_jbus.txt: some documentatyon fixes

### 2.807 2022-03-08 Jim Klimov <[jimklimov+nut@gmail.com](mailto:jimklimov+nut@gmail.com)>

- tests/getvaluetest.c: check different methods to combine two "wire" bytes into a lenght word (follows up for [#1320](#)), hopefully all work the same on all architectures
  - drivers/nutdrv\_qx.c: simplify back the bit-maths to cast into `uint8_t` following discussion in [#1320](#)
  - drivers/libusb0.c, drivers/libusb1.c: drivers/libusb{0,1}.c: simplify back the bit-maths to cast into `uint8_t` following discussion in [#1320](#)
-

**2.808 2022-03-07 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/tripplite\_usb.c: fix (commented-away) hard\_shutdown() to "unsigned char" and bit maths similar to soft\_shutdown()
- drivers/riello\_usb.c: Get\_USB\_Packet(): cast bit maths to (unsigned char) to err on safe side
- drivers/riello\_usb.c: whitespace fix
- drivers/nutdrv\_qx.c: upsdrv\_initups(): cast langid calculations to uint16\_t (or wider) [similar to #1320]
- drivers/libusb0.c, drivers/libusb1.c: drivers/libusb{1,0}.c: [follow-up from #1320]
- drivers/libshut.c: shut\_checksum(): address (usb\_ctrl\_charbuf)buf as (unsigned char) in bit maths
- drivers/libshut.c: BYTESWAP(): cast "in" to (uint16\_t) for bit maths and use a full-width mask
- drivers/blazer\_usb.c: upsdrv\_initups(): address (usb\_ctrl\_charbuf)tbuf as (unsigned char) in bit maths

**2.809 2022-03-02 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/snmp-ups.h: make sure WITH\_SNMP\_LKP\_FUN\_DUMMY is defined
- drivers/mge-xml.c: mge\_drycontact\_info(): avoid shadowing global variable
- docs/config-prereqs.txt: suggest updating JDK certs for OpenBSD (actually applies to others too)
- docs/config-prereqs.txt: suggest gcc/clang versioned symlinks for building NUT CI in openbsd
- docs/config-prereqs.txt, docs/nut.dict: docs/config-prereqs.txt: clarify how to update openbsd /etc/installurl
- docs/config-prereqs.txt: bash was suggested among "comfortable environment packages" and busybox is missing for openbsd
- docs/config-prereqs.txt: suggest comfortable environment packages for openbsd
- docs/config-prereqs.txt: fix openbsd example wording

**2.810 2022-02-28 Nick Briggs <nicholas.h.briggs@gmail.com>**

- drivers/libusb0.c: Cast to unsigned type when interpreting HID descriptor length bytes (libusb 0.1) The libusb 0.1 interface definition declares a (signed) char type for control messages. The HID descriptor length contained within a control message is intended to be interpreted as a pair of unsigned bytes so we must cast to uint8\_t when doing the arithmetic rather than trip over the sign bit. Closes #1261, closes #1312.

**2.811 2022-02-27 Nita Vesa <werecatf@outlook.com>**

- drivers/apc-hid.c, drivers/usbhid-ups.c: APC HID UPS: Add ability to set battery.mfr.date Some APC UPSes allow for setting battery.mfr.date, so it can be easily referenced later, even if there were no stickers or papers left to refer to. This patch has been tested to work with APC Back-UPS ES 550G.

**2.812 2022-02-27 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/snmp-ups.c: daisychain\_init(): add debug trace
  - drivers/eaton-pdu-marlin-helpers.c: marlin\_device\_count\_fun(): add debug trace
-

**2.813 2022-02-27 Jim Klimov <jim@jimklimov.com>**

- drivers/snmp-ups.c: extend daisychain initialization to use optional mapping function Note: ported sub-set of "snmp-ups.[ch] : add support for extended fun/nuf l2s/s2l conversions and use it for daisychain initialization" without the actual 2x2 "fun/nuf l2s/s2l" support here.
- drivers/snmp-ups.c: whitespace fix
- drivers/eaton-pdu-marlin-mib.c: resync comments and use of SU\_FLAG\_SEMI\_STATIC
- drivers/snmp-ups.c: avoid stringop-truncation warning: make sure string is finite
- drivers/snmp-ups-helpers.c, drivers/snmp-ups.c: Move su\_temperature\_read\_fun() from drivers/snmp-ups.c to snmp-ups-helpers.c
- drivers/powerware-mib.c: update comments and implem for dummy eaton\_sensor\_temperature\_unit\_fun()/su\_temperature\_read\_fun() from 42ity/nut
- drivers/eaton-pdu-marlin-mib.c: update comments and implem for dummy eaton\_sensor\_temperature\_unit\_fun()/su\_temperature\_read\_fun() from 42ity/nut
- drivers/eaton-pdu-marlin-mib.c, drivers/powerware-mib.c, drivers/snmp-ups.c, drivers/snmp-ups.h: drivers/snmp-ups.{c,h}: adjust su\_temperature\_read\_fun() API to that used in NUT master branch
- drivers/eaton-pdu-marlin-helpers.c, drivers/eaton-pdu-marlin-helpers.h: drivers/eaton-pdu-marlin-helpers.{c,h}: adjust eaton\_sensor\_temperature\_unit\_fun() API to that used in NUT master branch
- drivers/eaton-pdu-marlin-helpers.c: fix whitespace
- drivers/eaton-pdu-marlin-mib.c: align comments around outlet.%i.name with FTY version
- drivers/eaton-pdu-marlin-mib.c: align with "snmp-ups: Simplify the mapping structure" changes for input.phases⇒input.count

**2.814 2022-02-25 Jim Klimov <jim@jimklimov.com>**

- drivers/eaton-pdu-marlin-mib.c: break long lines
- drivers/snmp-ups.h: avoid "#if" with possibly not-defined macro
- drivers/eaton-pdu-marlin-mib.c: relocate outlet.%i.load.off.delay etc like in FTY
- drivers/eaton-pdu-marlin-mib.c: break long lines like in FTY
- drivers/eaton-pdu-marlin-mib.c: break long lines

**2.815 2022-02-24 Jim Klimov <jimklimov@gmail.com>**

- docs/nut.dict: Update nut.dict Update for Adelsystem CBI

**2.816 2022-02-24 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS: Update synchronous=auto for NUT v2.7.5
  - drivers/dstate.c: send\_to\_all(): port do\_synchronous auto⇒on fallback from send\_to\_one()
  - drivers/dstate.c: send\_to\_one()/send\_to\_all(): make the success-report less verbose (level 6)
  - drivers/dstate.c: send\_to\_one()/send\_to\_all(): make the reconnection WARNING more visible
  - conf/ups.conf.sample, docs/man/ups.conf.txt, drivers/dstate.c, drivers/main.c: driver/dstate.c, main.c: extend do\_synchronous to have an "auto" mode (now by default) so reconnections would be sync
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- drivers/dstate.c: send\_to\_one(): log at level 0 if write failed (twice maybe) and so driver is disconnecting
- drivers/dstate.c: send\_to\_one(): log more details if throttling down, and if it helped
- drivers/snmp-ups.c: snmp\_ups\_walk(): log "walking device %d" at level 1 now, and without a dot-number (to avoid confusion)
- drivers/dstate.c: send\_to\_one(): try to sleep and resend failed posting; log the faults (and successes) at level 1

#### 2.817 2022-02-23 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/dstate.c: send\_to\_all() send\_to\_one(): clarify "disconnecting" when logging that write failed
- drivers/snmp-ups.c: update comment for snmp\_ups\_walk() for "single" device
- drivers/snmp-ups.c: snmp\_ups\_walk(): for "unitary" (non-daisychain member) devices, walk a ".1" device only (should end up querying non-templated OIDs anyway) - avoid walking .0 partially and .1 again for same data
- drivers/snmp-ups.c: snmp\_ups\_walk(): log walking an "unitary" device if not a daisy-chain, for balance
- drivers/snmp-ups.c: snmp\_ups\_walk(): only log "Skipping daisychain device.0" when in daisy-chain context (skip anyway even for singular devices where we should also walk .1 anyway)
- drivers/snmp-ups.c: update heading comments for daisychain related variables
- drivers/snmp-ups.c: snmp\_ups\_walk(): only skip "device.0" if in daisy-chain mode
- drivers/snmp-ups.c: update comment for current\_device\_number

#### 2.818 2022-02-22 Thanos Chatziathanassiou <tchatzi@arx.net>

- docs/man/socomec\_jbus.txt, drivers/Makefile.am, drivers/socomec\_jbus.c: Added socomec\_jbus implementation

#### 2.819 2022-02-22 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/snmp-ups.c: snmp\_ups\_walk(): fix taxonomy of "processing daisy-chain device" debug log

#### 2.820 2022-02-22 Jim Klimov <jim@jimklimov.com>

- scripts/subdriver/gen-snmp-subdriver.sh: generate "standard MIB items" into new MIB mappings Kudos to @aquette for the catch in PR review

#### 2.821 2022-02-21 Luke Dashjr <luke-jr+git@utopios.org>

- scripts/python/Makefile.am, scripts/python/README, scripts/python/app/NUT-Monitor.in, scripts/python/app/README, scripts/python/app/1.3.glade, scripts/python/app/gui-1.3.glade.h, scripts/python/app/nut-monitor.desktop, scripts/python/app/ui/aboutdialog1.ui, scripts/python/app/ui/dialog1.ui, scripts/python/app/ui/dialog2.ui, scripts/python/app/ui/window1.ui: NUT-Monitor: Port to Python3+PyQt5
- scripts/python/Makefile.am, scripts/python/README, scripts/python/app/NUT-Monitor.in, scripts/python/app/README, scripts/python/app/1.3.glade, scripts/python/app/gui-1.3.glade.h, scripts/python/app/nut-monitor.desktop, scripts/python/app/ui/aboutdialog1.ui, scripts/python/app/ui/dialog1.ui, scripts/python/app/ui/dialog2.ui, scripts/python/app/ui/window1.ui: NUT-Monitor: Port to Python3+PyQt5

**2.822 2022-02-19 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/snmp-ups.c, server/upsd.c: drivers/snmp-ups.c upsdrv\_updateinfo(); server/upsd.c driver\_free() mainloop(): trace connection faults and reconnections better
- drivers/dstate.c: send\_to\_one(): consistently use "bufen"
- drivers/dstate.c: send\_to\_all/send\_to\_one: extend failed-send tracing
- drivers/snmp-ups.c: su\_setOID(): uncomment the fallback for "device.x.contact" not found as a "contact", and add another to strip "device.1." ⇒ "device." to allow setting non-templated values to daisy-chain master
- drivers/snmp-ups.c, server/upsd.c: drivers/snmp-ups.c upsdrv\_updateinfo(); server/upsd.c driver\_free() mainloop(): trace connection faults and reconnections better
- drivers/dstate.c: send\_to\_one(): consistently use "bufen"
- drivers/dstate.c: send\_to\_all/send\_to\_one: extend failed-send tracing

**2.823 2022-02-19 Jim Klimov <jim@jimklimov.com>**

- drivers/snmp-ups.c: wrap long lines, add comments
- drivers/snmp-ups.c: upsdrv\_initups(): check that there is no daisychain master entry before defining IETF-MIB fallback defaults for contact/location/description
- drivers/snmp-ups.c: upsdrv\_initups(): comment and log that IETF-MIB fallback defaults for contact/location/description are only read once (not updated while driver runs)
- drivers/snmp-ups.c: su\_ups\_get(): fake current\_device\_number=1 to su\_setinfo() when walking a daisy-chain with non-templated OID
- drivers/snmp-ups.c: get\_and\_process\_data(), su\_ups\_get(): add tracing logs to make sense of daisy-chain OID adaptations
- drivers/snmp-ups.c: wrap long lines, add comments
- drivers/snmp-ups.c: su\_setinfo(): trace diags for different code-paths about daisy-chained OID decisions
- drivers/snmp-ups.c: su\_setinfo(): this is not the place to check for ".%i" after all

**2.824 2022-02-18 Viktor Kuzmin <kvaster@gmail.com>**

- configure.ac: Fix individual drivers configuration

**2.825 2022-02-18 Jim Klimov <jim@jimklimov.com>**

- tools/nut-dumpdiff.sh: revise to also strip frequency measurements
  - tools/nut-dumpdiff.sh: revise to also strip (load|temperature|humidity) measurements
  - docs/documentation.txt: document tools/nut-dumpdiff.sh helper
  - tools/nut-dumpdiff.sh: revise to strip just numeric measurements of (\*.power|voltage|current)
  - tools/nut-dumpdiff.sh: extend to not strip ALL numeric values but ones that are likely measurements
  - tools/Makefile.am, tools/nut-dumpdiff.sh: Add tools/nut-dumpdiff.sh helper
  - drivers/snmp-ups.c: su\_setOID(): handle e.g. "device.contact" as either "device.0.contact" for "all devices" if OID is templated or NULL, or "device.1.contact" for "master device" in other cases
-

- drivers/snmp-ups.c: su\_setOID(): import (commented away - not deemed necessary so far) fallback for e.g. "device.x.contact" is not found as a "contact"
- drivers/snmp-ups.c: su\_setinfo(): fix comment
- drivers/snmp-ups.c: fix "device.varname" for daisychain *master* units \* su\_setinfo(): should not expose master-specific data (like device.contact coming from IETF un-templated data points not aware about daisy chains) as if it were the data specific to every device in the chain; note that for defaulted data (like device.type="pdu" hardcoded with NULL OID) we still expose it across the board \* su\_setOID(): "upswr ... device.contact" should change the daisychain master device (for IETF un-templated data; but in this commit - always)

## 2.826 2022-02-17 Jim Klimov <jim@jimklimov.com>

- drivers/snmp-ups.c: su\_setOID(): fix mis-interpretation of "device\*" as always a daisy-chain
- drivers/snmp-ups.c: use "hard-coded" IETF MIB for read-only access to sysDescr also (only if mib2nut does not yet define a better value)
- drivers/snmp-ups.c: use "hard-coded" IETF MIB for read-only access to sysContact and sysLocation only if mib2nut does not yet define a better value
- drivers/emerson-avocent-pdu-mib.c: whitespace fix
- drivers/eaton-pdu-marlin-mib.c: whitespace fix
- drivers/apc-mib.c: drivers/apc-mib: whitespace fix
- drivers/xppc-mib.c: whitespace fix
- drivers/apc-ats-mib.c, drivers/apc-mib.c, drivers/baytech-mib.c, drivers/bestpower-mib.c, drivers/compaq-mib.c, drivers/cyberpower-mib.c, drivers/delta\_ups-mib.c, drivers/eaton-ats16-nm2-mib.c, drivers/eaton-ats16-nmc-mib.c, drivers/eaton-pdu-genesis2-mib.c, drivers/eaton-pdu-marlin-mib.c, drivers/eaton-pdu-pulizzi-mib.c, drivers/eaton-pdu-revelation-mib.c, drivers/emerson-avocent-pdu-mib.c, drivers/hpe-pdu-mib.c, drivers/huawei-mib.c, drivers/ietf-mib.c, drivers/mge-mib.c, drivers/netvision-mib.c, drivers/powerware-mib.c, drivers/raritan-pdu-mib.c, drivers/raritan-px2-mib.c, drivers/xppc-mib.c: drivers/\*-mib.c: define standard-MIB entries for device.description, contact, location (RW STRING)
- clients/upscmd.c, clients/upswr.c: clients/upswr.c, upscmd.c: fix sanity-check of tracking\_id length (forgot the nul-byte)
- scripts/systemd/nut-driver@.service.in: make sure drivers always try to start and connect - how ever many attempts that takes
- scripts/systemd/nut-driver@.service.in: comment about "Before=nut-driver.target" constraint
- scripts/systemd/nut-driver@.service.in: make sure drivers always try to start and connect

## 2.827 2022-02-17 Dimitris Economou <dimitris.s.economou@gmail.com>

- drivers/adelsystem\_cbi.c: handle covered-switch-default and switch-enum warnings
  - drivers/adelsystem\_cbi.h: clean up, fix typos
  - drivers/adelsystem\_cbi.c: clean up, fix typos
  - docs/man/Makefile.am, docs/man/adelsystem\_cbi.txt: man page added
-

**2.828 2022-02-16 Jim Klimov <jimklimov+nut@gmail.com>**

- clients/upsmon.c: restructure config reload for debug\_min to be more similar to that in upsd.c
- clients/upsmon.c: whitespace fix
- scripts/systemd/nut-server.service.in: reload upsd without PID file [for #1299]
- server/conf.c: allow upsd to reload config and apply its debug\_min setting
- clients/upsmon.c, docs/man/upsmon.txt: clients/upsmon.c: add "-P pid" arg handling, and report result of sendsignal(), like in upsd [for #1299, #123]
- docs/man/upsd.txt, scripts/systemd/nut-server.service.in, server/upsd.c: upsd.c: add -FF option to stay foregrounded AND write the PID file, use it in systemd/nut-server.service [for #1299]
- docs/man/upsd.txt, server/upsd.c: server/upsd.c: add "-P PID" arg for commands [for #1299]
- common/common.c, include/common.h: include/common.h, common.c: refactor sendsignalfn() into parsepid() and sendsignalpid() reusable methods
- server/upsd.c: warn about not saving a pid file
- server/upsd.c: handle extended return values from sendsignalfn() to tell more about the error
- common/common.c: sendsignalfn(): if we use sig==0 to probe that a process runs, no need to send that twice
- common/common.c, include/common.h: include/common.h, common.c: extend sendsignalfn() return value for more error types

**2.829 2022-02-16 Jim Klimov <jim@jimklimov.com>**

- drivers/libhid.c: string\_to\_path(): report hid\_lookup\_usage() miss
- drivers/libhid.c: fix misfire of fightwarn commit 58e5b49 (string\_to\_path(): range-check...) Closes: #1286
- conf/upsd.conf.sample, conf/upsmon.conf.sample.in, docs/man/upsd.conf.txt, docs/man/upsmon.conf.txt: upsd and upsmon configuration sample files and man pages: add note about run-time config reload with DEBUG\_MIN setting in sight
- clients/upsmon.c: allow upsmon to reload config and apply its debug\_min setting
- common/common.c: writepid(): debug-trace creation of a PID file

**2.830 2022-02-15 Jim Klimov <jim@jimklimov.com>**

- drivers/main.c: fix user:group separator in debug message
  - configure.ac: report default/detected RUN\_AS\_USER/RUN\_AS\_GROUP values in help; check if "nobody" group is not resolvable when "nogroup" us to use it as default RUN\_AS\_GROUP instead
  - drivers/main.c: report whether we succeeded or failed chown/chmod for sockname
  - docs/man/nutupsdrv.txt, docs/man/ups.conf.txt, drivers/main.c: drivers/main.c: support setting group name for socket file (ups.conf, CLI -g arg) Closes: #1296
  - drivers/dstate.c, drivers/dstate.h, drivers/main.c: drivers/main.c \+ dstate.{c,h}: refactor dstate\_init() to return a copy of the "sockname" path used
  - drivers/main.c: re-word debug message for "-u name" overriding built-in or configured values
  - drivers/main.c: trace do\_global\_args() and main\_arg() var/val stream
  - docs/hid-subdrivers.txt: describe tech for "Fixing report descriptors"
  - docs/hid-subdrivers.txt, docs/nut.dict, drivers/hidtypes.h: docs/hid-subdrivers.txt: document where USAGE\_POW\_ and USAGE\_BAT\_ macros come from
  - drivers/apc-hid.c: apc\_fix\_report\_desc(): normalize indentations
-

**2.831 2022-02-14 Nick Briggs <nicholas.h.briggs@gmail.com>**

- drivers/apc-hid.c: Update APC HID driver version
- drivers/apc-hid.c: Only indicate report descriptor fixed if it was actually changed.

**2.832 2022-02-14 Jim Klimov <jim@jimklimov.com>**

- docs/man/ups.conf.txt, drivers/main.c: drivers/main.c: allow to specify a user for each driver via ups.conf Closes: [#1288](#)
- drivers/upsdrvctl.c: suggest "-d" when warning about passing debugging through to actual drivers
- drivers/upsdrvctl.c: only warn about passing debugging through to actual drivers if (nut\_debug\_level\_passthrough == 0)
- docs/man/upsdrvctl.txt, drivers/upsdrvctl.c: drivers/upsdrvctl: add "-d" option to pass debug level to drivers Closes: [#1036](#)  
(Note: that issue discusses other possible improvements around this subject, which are synergetic with this one)

**2.833 2022-02-13 Nick Briggs <nicholas.h.briggs@gmail.com>**

- drivers/apc-hid.c, drivers/cps-hid.c, drivers/hidparser.c, drivers/hidparser.h, drivers/hidtypes.h: Fix incorrect limits for input and config voltages in APC report descriptor The Back-UPS XS 1400U has been observed to report input/config voltage limits that are appropriate for the North American 120V region even though the unit is operating in the European or other 220\+V region. This change diagnoses the the problem by checking if the logical maximum values for UPS.Input.Voltage and UPS.Input.ConfigVoltage are consistent with the UPS.Input.HighVoltageTransfer and if not, increases them. A similar problem was reported for CPS units in the EU region. - introduces #defines for all standard usages in power system and battery device pages. - moves cps-hid.c FindReport() to hidparser.c as FindObject\_with\_ID\_Node(). - updates cps-hid.c to account for new defines/function name - adds apc\_fix\_report\_desc() to implement change for APC UPS units

**2.834 2022-02-13 Luke Dashjr <luke-jr+git@utopios.org>**

- scripts/python/app/NUT-Monitor.in: NUT-Monitor: Run py2to3-3.10
- scripts/python/app/NUT-Monitor.in: NUT-Monitor: Run py2to3-3.10

**2.835 2022-02-11 Jim Klimov <jim@jimklimov.com>**

- NEWS: added usbhid-ups "ever-hid" subdriver for NUT v2.7.5
  - docs/man/upsd.conf.txt: document DISABLE\_WEAK\_SSL
  - NEWS, docs/nut.dict: NEWS: announce "debug\_min" options for daemons in NUT v2.7.5
  - NEWS: announce fore-/back-grounding options for daemons in NUT v2.7.5
  - docs/man/upsd.conf.txt: document optional "DEBUG\_MIN" setting
  - conf/upsd.conf.sample: document optional "DEBUG\_MIN" setting
  - conf/upsmon.conf.sample.in: document optional "DEBUG\_MIN" setting
  - conf/ups.conf.sample: document optional "debug\_min" setting
  - docs/man/upsmon.conf.txt: document optional "DEBUG\_MIN" setting
  - docs/man/ups.conf.txt: document optional "debug\_min" setting
  - server/conf.c, server/conf.h, server/upsd.c: server/upsd.c, conf.c: support "debug\_min" from upsd.conf
  - clients/upsmon.c: support "debug\_min" from upsmon.conf
-

- drivers/main.c: comment typo fixes
- docs/man/upslog.txt: fix typo "upsmon" ⇒ "upslog"
- clients/upslog.c: align -F/-B options with drivers/main.c
- scripts/systemd/nut-monitor.service.in: with daemon not backgrounding, "Type=forking" no longer applies
- docs/man/upsd.txt: document -F/-B for fore/back-ground enforcement, and that -D only defaults to foregrounding now (can be overridden)
- server/upsd.c: align -F/-B options with drivers/main.c
- docs/man/upsmon.txt: document -F/-B for fore/back-ground enforcement, and that -D only defaults to foregrounding now (can be overridden)
- clients/upsmon.c: align -F/-B options with drivers/main.c
- docs/man/nutupsdrv.txt: document -F/-B for fore/back-ground enforcement, and that -D/-d only default to foregrounding now (can be overridden)
- drivers/main.c: update comments

#### **2.836 2022-02-11 Dimitris Economou <[dimitris.s.economou@gmail.com](mailto:dimitris.s.economou@gmail.com)>**

- drivers/adelsystem\_cbi.c, drivers/adelsystem\_cbi.h: coding style changes
- drivers/adelsystem\_cbi.c: fix parameter hiding global variable

#### **2.837 2022-02-10 Nick Geoghegan <[nick@geoghegan.me](mailto:nick@geoghegan.me)>**

- drivers/riello\_usb.c: Fixes formatting in riello\_usb
- drivers/riello\_ser.c: Updates riello\_ser to version 0.07

#### **2.838 2022-02-10 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>**

- .github/pull\_request\_template.md: remind to update recipes for new man pages
- configure.ac: avoid noise about pkg-config not finding (lib)systemd.pc on systems where it is not installed
- configure.ac: default to detection of systemdsystemunitdir (and systemdshutdownndir) - "auto" is not a final option
- configure.ac, docs/configure.txt: configure.ac: default to detection of systemdsystemunitdir (and systemdshutdownndir), non-fatal if not found
- configure.ac: fall back from pkg-config queries for "systemd" to try also "libsystemd" - fix calling "test"
- configure.ac: fall back from pkg-config queries for "systemd" to try also "libsystemd"
- docs/man/Makefile.am: build and install nutdrv\_siemens\_sitop man pages

#### **2.839 2022-02-09 Nick Geoghegan <[nick@geoghegan.me](mailto:nick@geoghegan.me)>**

- drivers/riello\_usb.c: Fixes 530
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**2.840 2022-02-09 Jim Klimov <jim@jimklimov.com>**

- drivers/nutdrv\_qx\_masterguard.c: rename non-standard dstate variables to "experimental.\*" namespace Closes: NUT [issue #1045](#)
- drivers/nutdrv\_qx\_masterguard.c: fix "ups.delay.return" ⇒ "ups.delay.start"
- drivers/nutdrv\_qx\_masterguard.c: whitespace fixes (some long lines)
- docs/packager-guide.txt: update for nut-linux-i2c and nut-macosx-ups platform-dependent package groups
- docs/packager-guide.txt: fix title for pkg-nut-modbus
- drivers/ever-hid.c: tag non-standard NUT variable/command names as "experimental.\*" to help identify lacking mappings and rename some into standard data points
- drivers/ever-hid.c, drivers/ever-hid.h: drivers/ever-hid.{c,h}: update © heading
- drivers/ever-hid.c: print unsigned int as %u
- drivers/ever-hid.c: mark NUT\_UNUSED\_VARIABLE(double value) where appropriate
- drivers/ever-hid.c: use complete struct initializers for info\_lkp\_t tables; use sentinels; mark static
- drivers/ever-hid.c: ever\_alarms\_fun(), ever\_workmode\_fun(): define "workmode" on top of function
- drivers/ever-hid.c: fix switch/case whitespaces
- drivers/ever-hid.c: fix trailing whitespaces
- drivers/ever-hid.c: wrap some long lines for readability
- drivers/ever-hid.c: adjust to upstream changes: config.h goes first, PID/VID are unsigned, got a fix\_report\_desc() default
- drivers/everups.c: whitespace fixes; clarify this is a serial driver (as opposed to ever-hid.c for USB devices)

**2.841 2022-02-08 Jim Klimov <jim@jimklimov.com>**

- configure.ac: error out for unhandled --with-drivers=xxx names
- configure.ac: improve handling of platform-dependent (linux-i2c, macosx) drivers - do not default to require them everywhere
- configure.ac: move --with-drivers=... handling to before --with-all, and consult drivers/Makefile.am for list names to require certain dependencies
- drivers/Makefile.am: parameterize POWERMAN\_DRIVERLIST and IPMI\_DRIVERLIST like others
- configure.ac: move "--with-drivers=name[,name...]" handling to before we check for third-party dependencies
- clients/upssched.c: sendcmd(): rectify enclen/buflen sanity checks and usage
- clients/upssched.c: whitespace and comment fixes

**2.842 2022-02-08 Dimitris Economou <dimitris.s.economou@gmail.com>**

- drivers/adelsystem\_cbi.h: check ifndef READALL\_REGS
  - drivers/adelsystem\_cbi.c: minor fix in upsdrv\_updateinfo
  - drivers/adelsystem\_cbi.c, drivers/adelsystem\_cbi.h: fix warning for initializing structure with flexible array member
-



**2.843 2022-02-07 Jim Klimov <jim@jimklimov.com>**

- scripts/subdriver/gen-usbhid-subdriver.sh: gen-usbhid-subdriver.sh: suggest "fix\_report\_desc" in subdriver\_t (follow-up to [PR #1245](#))

**2.844 2022-02-07 Dimitris Economou <dimitris.s.economou@gmail.com>**

- clients/upssched.c: fix code alignemnt, casting sizeof with ssize\_t

**2.845 2022-02-06 Jim Klimov <jim@jimklimov.com>**

- docs/packager-guide.txt: mention ipmi and modbus drivers as separate packaging goals

**2.846 2022-02-06 Dimitris Economou <dimitris.s.economou@gmail.com>**

- clients/upssched.c: Re-apply on Windows branch: fix enc size write on pipefd, fix parent select on child's pipefd, and later commits in the series Committed-By: Jim Klimov <jimklimov\+nut@gmail.com>
- clients/upssched.c: check zero bytes read from O\_NDELAY socket
- clients/upssched.c: fix enc size write on pipefd, fix parent select on child's pipefd
- drivers/Makefile.am: adelsystem\_cbi header filename fix

**2.847 2022-02-05 Jim Klimov <jim@jimklimov.com>**

- docs/nut.dict, docs/support.txt: docs/support.txt: detail abot GitHub issues and PRs, and IRC channel
  - drivers/al175.c, drivers/apc-ats-mib.c, drivers/apc-hid.c, drivers/apc-mib.c, drivers/apc-pdu-mib.c, drivers/apcsmart-old.c, drivers/apcsmart.h, drivers/apcupsd-ups.c, drivers/arduino-hid.c, drivers/asem.c, drivers/baytech-mib.c, drivers/bcmxcp.c, drivers/bcmxcp\_ser.c, drivers/bcmxcp\_usb.c, drivers/belkin-hid.c, drivers/belkin.c, drivers/belkinunv.c, drivers/bestfcom.c, drivers/bestfortress.c, drivers/bestpower-mib.c, drivers/bestuferrups.c, drivers/bestups.c, drivers/blazer\_ser.c, drivers/blazer\_usb.c, drivers/clone-outlet.c, drivers/clone.c, drivers/compaq-mib.c, drivers/cps-hid.c, drivers/cyberpower-mib.c, drivers/delta\_ups-hid.c, drivers/delta\_ups-mib.c, drivers/dummy-ups.c, drivers/eaton-ats16-nm2-mib.c, drivers/eaton-ats16-nmc-mib.c, drivers/eaton-ats30-mib.c, drivers/eaton-pdu-genesis2-mib.c, drivers/eaton-pdu-marlin-mib.c, drivers/eaton-pdu-pulizzi-mib.c, drivers/eaton-pdu-revelation-mib.c, drivers/emerson-avocent-pdu-mib.c, drivers/etapro.c, drivers/everups.c, drivers/explore-hid.c, drivers/gamatronic.c, drivers/generic\_modbus.c, drivers/genericups.c, drivers/hpe-pdu-mib.c, drivers/huawei-mib.c, drivers/huawei-ups2000.c, drivers/idowell-hid.c, drivers/ietf-mib.c, drivers/isbmex.c, drivers/ivtscd.c, drivers/legrand-hid.c, drivers/libshut.c, drivers/libusb0.c, drivers/libusb1.c, drivers/liebert-esp2.c, drivers/liebert-hid.c, drivers/liebert.c, drivers/macosex-ups.c, drivers/masterguard.c, drivers/metasys.c, drivers/mge-hid.c, drivers/mge-mib.c, drivers/mge-utalk.c, drivers/microdowell.c, drivers/microsol-apc.c, drivers/netvisio-mib.c, drivers/netxml-ups.c, drivers/nut-ipmipsu.c, drivers/nutdrv\_atcl\_usb.c, drivers/nutdrv\_qx.c, drivers/nutdrv\_siemens\_sitop.c, drivers/oneac.c, drivers/openups-hid.c, drivers/optiups.c, drivers/phoenixcontact\_modbus.c, drivers/pijuice.c, drivers/powercom-hid.c, drivers/powercom.c, drivers/powerman-pdu.c, drivers/powerpanel.c, drivers/powervar-hid.c, drivers/powerware-mib.c, drivers/raritan-pdu-mib.c, drivers/raritan-px2-mib.c, drivers/rhino.c, drivers/richcomm\_usb.c, drivers/riello\_ser.c, drivers/riello\_usb.c, drivers/safenet.c, drivers/salicru-hid.c, drivers/skel.c, drivers/snmp-ups.c, drivers/solis.c, drivers/triplite-hid.c, drivers/triplite.c, drivers/triplite\_usb.c, drivers/triplitesu.c, drivers/upscod2.c, drivers/usbhid-ups.c, drivers/victronups.c, drivers/xppc-mib.c: drivers: bump versions for all drivers, they could have been refactored during fightwarn (so might add regressions) without regard to versioning
  - UPGRADING: NEWS: plea to package maintainers to share their customizations into common upstream
  - docs/documentation.txt, docs/nut.dict: documentation.txt: add a blog by James Ridgway
  - docs/documentation.txt: documentation.txt: update with a link to video by Techno Tim
  - docs/documentation.txt: developers.txt: "trac" is AWOL, update the link to github wiki copy
  - docs/developers.txt: developers.txt: "alioth" is AWOL, update the text
  - docs/download.txt: download.txt: "trac" and "alioth" are AWOL, update the links
-

**2.848 2022-02-05 Dimitris Economou <dimitris.s.economou@gmail.com>**

- drivers/adelsystem\_cbi.c: apply Jim's modbus changes on [PR #1239](#)

**2.849 2022-02-02 Jim Klimov <jim@jimklimov.com>**

- scripts/installer/common/init, scripts/installer/common/ipp-event.sh, scripts/installer/common/ipp-notifier.sh, scripts/installer/common/os-shutdown, scripts/installer/common/ipp-shutdown-daemon.sh, scripts/installer/common/ipp-status, scripts/installer/common/shutdown, scripts/installer/common/string.sh: scripts/installer/common/\*: update from latest revision snapshot

**2.850 2022-01-27 Jim Klimov <jim@jimklimov.com>**

- drivers/snmp-ups.c: Revert "drivers/snmp-ups.c: replace strcmp("short string") with strncmp() (clang-3.4 warns about array out of bounds)" This reverts commit d2f7193af42e987f7948e072a963dc7bb1e25dc1. Currently the configure script should properly avoid the built-in strcmp() versions which upset current build compiler. Using the range-limited strncmp() has a downside of matching start-of-string.
- drivers/snmp-ups.c: Revert "drivers/snmp-ups.c: fix strncmp() limits for "v1" and "v3" checks (copy-pasting typo)" This reverts commit d0d02d3a70c6544c8ea7868dd63738595f2ae657. Currently the configure script should properly avoid the built-in strcmp() versions which upset current build compiler. Using the range-limited strncmp() has a downside of matching start-of-string.
- clients/upsclient.c, clients/upslog.c, clients/upsmon.c, clients/upsrw.c, clients/upssched.c, clients/upsset.c, common/state.c, common/upsconf.c, docs/developers.txt, docs/nut.dict, drivers/apcsmart-old.c, drivers/apcsmart.c, drivers/apcupsd-ups.c, drivers/belkin.c, drivers/belkinunv.c, drivers/bestups.c, drivers/clone-outlet.c, drivers/clone.c, drivers/dstate.c, drivers/gamatronic.c, drivers/huawei-ups2000.c, drivers/main.c, drivers/masterguard.c, drivers/mge-utalk.c, drivers/mge-xml.c, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx\_bestups.c, drivers/nutdrv\_qx\_blazer-common.c, drivers/nutdrv\_qx\_voltronic-qs-hex.c, drivers/nutdrv\_qx\_voltronic-qs.c, drivers/nutdrv\_qx\_voltronic.c, drivers/oneac.c, drivers/powercom.c, drivers/powerman-pdu.c, drivers/powerp-txt.c, drivers/snmp-ups.c, drivers/triplite\_usb.c, drivers/upscode2.c, drivers/victronups.c, server/conf.c, server/netget.c, server/netlist.c, server/netset.c, server/user.c, tests/cppptest.cpp, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_snmp.c: Revert "Replace strcmp() and strcasecmp() use-cases for short fixed string args by strncmp() and strncasecmp() respectively" This reverts commit a0d5ad57956ebcb5878744acb7657e1356ba0ea8. Currently the configure script should properly avoid the built-in strcmp() versions which upset current build compiler. Using the range-limited strncmp() has a downside of matching start-of-string.
- drivers/snmp-ups.c, tools/nut-scanner/scan\_snmp.c: Revert "tools/nut-scanner/scan\_snmp.c, drivers/snmp-ups.c: strcmp() shorter "SHA" and "AES" and check this is all of the string length" This reverts commit 57182d51b2954e6b7bb5199f658f38a89ce93648. Currently the configure script should properly avoid the built-in strcmp() versions which upset current build compiler. Using the range-limited strncmp() has a downside of matching start-of-string.

**2.851 2022-01-23 Jim Klimov <jim@jimklimov.com>**

- ci\_build.sh: fix CI\_FAILFAST to abort after failed configure scripts
- NEWS, UPGRADING: snmp-ups.h flags (bit-mask macros) changed for NUT v2.7.5
- drivers/snmp-ups.h: mib2nut mappings with "zero" flag value are not illegal
- drivers/snmp-ups.h: redefine bit-flags macros so they do not overlap (and update some helper-masking macros) follows up on issue from [PR #1177](#) and aligns with ultimately DMF (42ity fork) tested changes to help merge that later with less effort

**2.852 2022-01-22 Jim Klimov <jim@jimklimov.com>**

- NEWS: Revert "NEWS: drop chapters for "PLANNED NEWS" for releases after v2.7.5" This reverts commit 8c0079973b995c598427 - those chapters are relevant in branch release-notes-for-2.7.6
  - NEWS: drop chapters for "PLANNED NEWS" for releases after v2.7.5
  - UPGRADING: highlight libusb-1.0 in NUT v2.7.5
-

**2.853 2022-01-21 Jim Klimov <jim@jimklimov.com>**

- docs/config-prereqs.txt, docs/nut.dict: docs/config-prereqs.txt: "libssl-dev" name is more popular nowadays than "openssl-dev" (Debian and family)
- docs/nut.dict: update for Armac subdriver NEWS
- data/driver.list.in: add PiJuice HAT (big) and pHAT (Zero)

**2.854 2022-01-20 Jim Klimov <jimklimov@gmail.com>**

- drivers/nutdrv\_qx.c: armac\_command(): use nut\_usb\_strerror(ret) Match updated libusb-1.0/0.1 API in NUT master
- drivers/nutdrv\_qx.c: Update nutdrv\_qx.c Fix nut\_usb\_strerror(ret) for new libusb-1.0/0.1 support in master branch

**2.855 2022-01-20 Jim Klimov <jim@jimklimov.com>**

- tools/nut-scanner/scan\_snmp.c, drivers/snmp-ups.c: strcmp() shorter "SHA" and "AES" and check this is all of the string length Alternative: move matching to end of stack
- NEWS: prepare for nutdrv-qx armac merge in 2.7.5 timeline
- NEWS: added usbhid-ups fix\_report\_desc() for NUT v2.7.5
- NEWS: added powercom "nobt" option for NUT v2.7.5
- drivers/nutdrv\_qx.c: armac\_command(): accomodate "usb\_ctrl\_charbuf" and formatting changes for libusb-1.0 support
- drivers/nutdrv\_qx.c: armac\_command(): mark as static method
- drivers/nutdrv\_qx\_ablerex.c: ablerex\_process\_status\_bits(): mark as static method
- drivers/nutdrv\_qx.c: ablerex\_command(): accomodate "usb\_ctrl\_charbuf" and formatting changes for libusb-1.0 support
- ci\_build.sh: make distcheck (pun intended) less noisy
- ci\_build.sh: comment a suggestion how to use BUILD\_TYPE=fightwarn typically
- ci\_build.sh: make distcheck (pun intended) less noisy
- ci\_build.sh: comment a suggestion how to use BUILD\_TYPE=fightwarn typically

**2.856 2022-01-19 Jim Klimov <jimklimov@gmail.com>**

- drivers/legrand-hid.c: Update legrand-hid.c Initialize "fix\_report\_desc", this file appeared from another PR merged before #1245

**2.857 2022-01-19 Jim Klimov <jim@jimklimov.com>**

- ci\_build.sh: provision check\_gitignore() calls for DMF branch build products
  - ci\_build.sh: check\_gitignore(): wrap long lines
  - ci\_build.sh: check\_gitignore(): add a FILE\_GLOB support
  - ci\_build.sh: optional\_dist\_clean\_check(): copy-paste error, GIT\_ARGS not needed in this one
  - ci\_build.sh: fix "MAKE distclean" operations back to not-quiet, they look weird as a half-muted wall of text
  - ci\_build.sh: fix use of git status \$GIT\_ARGS consistently
  - drivers/snmp-ups.c: match\_sysoid(): test for NULL mib2nut[i]→snmp\_info (and skip if so)
  - drivers/snmp-ups.c: load\_mib2nut(): imply that skipped value is not a "valid" name in the mapping table (name may be known, but with no snmp\_info attached)
-

**2.858 2022-01-18 Jim Klimov <jimklimov+nut@gmail.com>**

- tools/nut-scanner/scan\_usb.c: avoid SIGSEGV in libusb-1.0 when running as non-root and device fails to open (e.g. perms error)

**2.859 2022-01-18 Jim Klimov <jim@jimklimov.com>**

- drivers/snmp-ups.c: mib2nut mappings with "zero" flag value are not illegal Do not yell about them like it's a bug, after all.
- drivers/snmp-ups.c: handle not-loaded snmp\_info without segfaulting
- drivers/snmp-ups.c: load\_mib2nut(): better tracing of mib\_name comparisons
- drivers/snmp-ups.c: load\_mib2nut(): test for NULL mib2nut[i]→snmp\_info (and skip if so) before accounting mibSeen=TRUE and trying to match\_model\_OID()
- drivers/usbhid-ups.h: rename pDesc arg to match wording in usbhid-ups.c
- drivers/hidparser.c, drivers/hidparser.h: drivers/hidparser.{c,h}: rename pDesc arg/var to avoid shadowing a global variable Pre-emptively: extern pDesc is defined in libhid.h which does not seem to be used in/along-with hidparser.{c,h} currently - but this collision may happen later (especially with code-copying around).
- drivers/cps-hid.c: clean up trailing whitespaces
- drivers/cps-hid.c: FindReport() cps\_fix\_report\_desc(): rename pDesc arg to avoid shadowing a global variable
- drivers/cps-hid.c: mark non-exported FindReport() as static
- m4/nut\_compiler\_family.m4: enhance NUT\_CHECK\_COMPILE\_FLAG() to run the whole toolchain for "build and run" when checking CLI option support
- ci\_build.sh: build\_to\_only\_catch\_errors\_target(): CI\_PARMAKE\_VERBOSE=silent should not hide warnings
- ci\_build.sh: do not silent-make initial clean-up (it is chatty anyway, so let us see the dirs processed)
- ci\_build.sh: comment verbosity (non-)tweaks for builds without a BUILD\_TYPE
- ci\_build.sh: report around initial clean-up for clearer log reading
- ci\_build.sh: refactor with check\_gitignore()
- ci\_build.sh: refactor ccache\_stats()
- ci\_build.sh: refactor make-verbosity settings and adjust some for default builds to store less log

**2.860 2022-01-18 Dimitris Economou <dimitris.s.economou@gmail.com>**

- drivers/adele\_cbi.c, drivers/adele\_cbi.h: delete duplicates after rebase
- drivers/{adele\_cbi.c ⇒ adelsystem\_cbi.c}, drivers/{adele\_cbi.h ⇒ adelsystem\_cbi.h}: rename after rebase
- drivers/{adelsystem\_cbi.c ⇒ adele\_cbi.c}, drivers/{adelsystem\_cbi.h ⇒ adele\_cbi.h}: rename for rebase
- drivers/{adelsystem\_cbi.c ⇒ adele\_cbi.c}, drivers/{adelsystem\_cbi.h ⇒ adele\_cbi.h}: rename for rebase

**2.861 2022-01-17 Jim Klimov <jimklimov+nut@gmail.com>**

- tools/nut-scanner/nut-scanner.c: report in usage() if "library not detected" for a scan option
-

**2.862 2022-01-17 Jim Klimov <jim@jimklimov.com>**

- drivers/generic\_modbus.c: address -Wmissing-field-initializers complaints for timeval with timeouts (memset to 0 instead)
- drivers/generic\_modbus.c: address -Wstrict-prototypes complaints
- Jenkinsfile-dynamatrix: raise the bar for code quality non-regression, to fail on any (new) warnings in master branch and PRs to it
- Jenkinsfile-dynamatrix: shut back the cppcheck-by-default
- Jenkinsfile-dynamatrix: do not allow to disable delayedIssueAnalysis on "stable branches"
- Jenkinsfile-dynamatrix: enable cppcheck slowBuild stages generally, not just for "fightwarn" branches

**2.863 2022-01-16 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac: adjust test structure for both built-in ntohl/htonl and string built-ins (using explicit -Werror -Wno-... checks)
- configure.ac: adjust test structure for built-in ntohl/htonl to be similar to that for string built-ins (using explicit -Werror)
- ci\_build.sh: do not lose original LDFLAGS

**2.864 2022-01-15 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac: tweak LIBLTDL\_CFLAGS same as LIBNETSNMP\_CFLAGS for -Wno-shadow if needed for string methods or htonl() etc In some builds of the NUT CI farm dynamatrix (possibly ones without SNMP support), the nutscan-ip.c complains about "declaration shadows a local variable" — investigation of which leads into the macros expanded for common method names on those systems and/or compiler toolkit versions. This PR hopes to avoid that situation more extensively.

**2.865 2022-01-15 Jim Klimov <jim@jimklimov.com>**

- ci\_build.sh: add support for CANBUILD\_NUTCONF toggle (NUT\_BUILD\_CAPS=nutconf... for CI farm)
- common/Makefile.am, configure.ac, tests/Makefile.am, tools/nutconf/Makefile.am: tools/nutconf/Makefile.am, tests/Makefile.am, configure.ac: limit the impact of nutconf codebase quality by default
- include/nutconf.h, tools/nutconf/nutconf.cpp: nutconf codebase: fix C\+17 warnings - equality operators should return \*this
- common/nutipc.cpp, common/nutstream.cpp, include/nutconf.h, include/nutipc.hpp, include/nutstream.hpp, tools/nutconf/nutconf.cpp: nutconf codebase: fix C\+17 warnings - dynamic throw() declaration

**2.866 2022-01-14 Jim Klimov <jimklimov+nut@gmail.com>**

- tests/cpptest.cpp, tests/example.cpp, tests/nutclienttest.cpp: tests/\*.cpp: mark overridden class methods as such
- clients/nutclient.h, clients/nutclientmem.h: clients/nutclient.h \+ nutclientmem.h: mark overridden class methods as such

**2.867 2022-01-14 Jim Klimov <jim@jimklimov.com>**

- scripts/installer/aix/aix\_init, ...are\_shutdown.txt ⇒ README\_ipp-os-shutdown.txt}, ...usterware\_shutdown ⇒ ipp-host-shutdown.sample}, scripts/installer/common/ipp-wrapper, scripts/installer/common\_EN/install.res, scripts/installer/install.sh, scripts/installer/make\_package.sh, .../{solaris ⇒ solcmn}/ipp-os-shutdown.conf.sample, scripts/installer/solcmn/solaris\_init, .../installer/solint/ipp-os-shutdown.conf.sample, scripts/installer/uninstall-ipp, scripts/installer/version.sh: Update installer scripts from tentative Eaton IPSS Unix 1.40-5 release (2018)

- scripts/installer/aix/ipp-os-shutdown.conf.sample, scripts/installer/common/AIX\_Clusterware\_shutdown, .../common/README\_AI scripts/installer/common/aix\_init, scripts/installer/common/init, scripts/installer/common/ipp-event.sh, scripts/installer/common/ipp-notifier.sh, scripts/installer/common/ipp-os-shutdown, scripts/installer/common/ipp-shutdown-daemon.sh, scripts/installer/common/ipp-status, scripts/installer/common/ipp.conf, scripts/installer/common/shutdown, scripts/installer/common/solaris\_init, scripts/installer/common/string.sh, scripts/installer/common\_EN/install.res, scripts/installer/hpux/ipp-os-shutdown.conf.sample, scripts/installer/install.sh, scripts/installer/make\_package.sh, .../installer/solari/ipp-os-shutdown.conf.sample, .../installer/solint/ipp-os-shutdown.conf.sample, scripts/installer/uninstall-ipp, scripts/installer/version.sh: scripts/installer: snapshot from AIX\_Clusterware delivery (2015-11-18)
- scripts/installer/install.sh: do not dictate a MANPATH (led to some install errors)
- scripts/installer/install.sh: add logging to trace installer errors; use more library paths
- scripts/installer/README.txt, scripts/installer/common/init, scripts/installer/common/ipp-event.sh, scripts/installer/common/ipp-notifier.sh, scripts/installer/common/ipp-shutdown-daemon.sh, scripts/installer/common/ipp-status, scripts/installer/common/ipp.conf, scripts/installer/common/shutdown, scripts/installer/common/string.sh, scripts/installer/common\_EN/install.res, scripts/installer/common\_EN/license.txt, scripts/installer/install.sh, scripts/installer/make\_package.sh, scripts/installer/nut, scripts/installer/nutconf-dummy, scripts/installer/uninstall-ipp, scripts/installer/uninstall-lsnw.sh, scripts/installer/version.sh: Add installer scripts from Eaton IPSS Unix 1.40-4 release (2013-10-25)
- docs/man/nutconf.txt, docs/nut.dict: Spellcheck manpage for nutconf tool
- tools/nutconf/nutconf.cpp: adjust to changed API for nutscan\_scan\_xml\_http() ⇒ nutscan\_scan\_xml\_http\_range()
- tools/nutconf/.gitignore: Add tools/nutconf/.gitignore
- tools/nutconf/nutconf.cpp: add © header
- tools/nutconf/Makefile.am: modernize
- common/Makefile.am, common/nutwriter.cpp, tests/Makefile.am, tools/nutconf/Makefile.am: Import NUT source changes for nutconf tool from 42ITy (initial set)
- drivers/snmp-ups.h: treat DISABLE\_MIB\_LOADING more safely

## 2.868 2022-01-13 Jim Klimov <jimklimov+nut@gmail.com>

- configure.ac: adjust test for built-in string functions (problematic on clang-3.4) to see any warnings and specifically for unreachable code there
- ci\_build.sh: relay more build-influencing envvars in the (Jenkins-logged) printout
- drivers/nut-libfreeipmi.c: fix the range-check and message/comment it better
- drivers/asm.c: macro ACCESS\_DEVICE() ends with a brace; we HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_EXTRA\_SEMI\_STMT to keep the useless trailing ";" for readability
- m4/ax\_c\_pragmas.m4: add HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_EXTRA\_SEMI\_STMT(\_BESIDEFUNC)
- drivers/asm.c: declare upsdrv\_shutdown() as noreturn
- drivers/nutdrv\_qx.c: avoid including usb-common.h twice
- m4/ax\_c\_pragmas.m4: ask CLANG to reject unknown pragmas when checking for them
- common/common.c: check for HAVE\_PRAGMA\_CLANG\_DIAGNOSTIC\_IGNORED\_UNREACHABLE\_CODE\_RETURN support before use
- m4/ax\_c\_pragmas.m4: test specifically for HAVE\_PRAGMA\_CLANG\_DIAGNOSTIC\_IGNORED\_UNREACHABLE\_CODE\_RETURN support

**2.869 2022-01-13 Dimitris Economou <dimitris.s.economou@gmail.com>**

- drivers/adelsystem\_cbi.c: try to reconnect on IVALID DATA and INVALID CRC from read\_all\_regs
- drivers/adelsystem\_cbi.c: try to reconnect on INVALID DATA and INVALID CRC errors
- drivers/adele\_cbi.c, drivers/adele\_cbi.h, drivers/adelsystems\_cbi.c, drivers/adelsystems\_cbi.h: delete renamed driver files
- drivers/Makefile.am, drivers/adelsystem\_cbi.c, drivers/adelsystem\_cbi.h: filename fixes
- drivers/Makefile.am, drivers/adelsystems\_cbi.c, drivers/adelsystems\_cbi.h: adele changed to adelsystems
- drivers/adele\_cbi.c, drivers/adele\_cbi.h: macro name changes
- drivers/adele\_cbi.c, drivers/adele\_cbi.h: minor bug fixes
- drivers/adele\_cbi.h: modify regs\_data memory, devreg enum rearrangement
- drivers/adelsystem\_cbi.c: try to reconnect on IVALID DATA and INVALID CRC from read\_all\_regs
- drivers/adelsystem\_cbi.c: try to reconnect on INVALID DATA and INVALID CRC errors
- drivers/adele\_cbi.c, drivers/adele\_cbi.h, drivers/adelsystems\_cbi.c, drivers/adelsystems\_cbi.h: delete renamed driver files
- drivers/Makefile.am, drivers/adelsystem\_cbi.c, drivers/adelsystem\_cbi.h: filename fixes
- drivers/Makefile.am, drivers/adelsystems\_cbi.c, drivers/adelsystems\_cbi.h: adele changed to adelsystems
- drivers/adele\_cbi.c, drivers/adele\_cbi.h: macro name changes
- drivers/adele\_cbi.c, drivers/adele\_cbi.h: minor bug fixes
- drivers/adele\_cbi.h: modify regs\_data memory, devreg enum rearrangement

**2.870 2022-01-12 Jim Klimov <jimklimov+nut@gmail.com>**

- m4/nut\_compiler\_family.m4: set default C/C++ standards to GNU dialects for GCC/CLANG
  - m4/nut\_compiler\_family.m4: set default C/C++ standards to avoid C90-non-compliance warnings noise (on compilers that can do better than that)
  - m4/nut\_check\_libnetsnmp.m4: fix a test from shell to autoscript
  - tools/nut-scanner/nut-scanner.c: only evaluate if NUT\_HAVE\_LIBNETSNMP\_\* when we build WITH\_SNMP
  - common/common.c: use HAVE\_PRAGMAS\_FOR\_GCC\_DIAGNOSTIC\_IGNORED\_UNREACHABLE\_CODE\_RETURN
  - m4/ax\_c\_pragmas.m4: add HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_UNREACHABLE\_CODE\_RETURN(\_BESIDEF)
  - configure.ac, m4/nut\_compiler\_family.m4: m4/nut\_compiler\_family.m4 \+ configure.ac: refactor NUT\_COMPILER\_FAMILY\_FLAG as a separate method to apply just before we set up warning-level support
  - docs/config-prereqs.txt, docs/nut.dict: docs/config-prereqs.txt: update dependency package naming for libusb-1.0 on Debian family
  - m4/nut\_compiler\_family.m4: set default C/C++ standards to GNU dialects for GCC/CLANG
  - m4/nut\_compiler\_family.m4: set default C/C++ standards to avoid C90-non-compliance warnings noise (on compilers that can do better than that)
  - ci\_build.sh: comment why ./configure is not without args
  - drivers/generic\_modbus.c: fix whitespace style (in PR-1239)
-



**2.871 2022-01-12 Dimitris Economou <dimitris.s.economou@gmail.com>**

- drivers/adele\_cbi.c, drivers/adele\_cbi.h: some fixes in read\_all\_regs approach
- drivers/adele\_cbi.c, drivers/adele\_cbi.h: read\_all\_regs approach integrated
- drivers/adele\_cbi.c, drivers/adele\_cbi.h: some fixes in read\_all\_regs approach
- drivers/adele\_cbi.c, drivers/adele\_cbi.h: read\_all\_regs approach integrated

**2.872 2022-01-12 Arnaud Quette <ArnaudQuette@eaton.com>**

- drivers/mge-xml.c: Eaton NMC: fix the non publication of real/power with 3ph power and realpower for 3ph Lx were not publishing values when they were 0
- drivers/mge-xml.c: Eaton NMC: fix the non publication of real/power with 3ph power and realpower for 3ph Lx were not publishing values when they were 0

**2.873 2022-01-11 Jim Klimov <jimklimov@gmail.com>**

- docs/nut.dict: Update nut.dict Updated for PR <https://github.com/networkupstools/nut/pull/1256>

**2.874 2022-01-11 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/arduino-hid.c, drivers/delta\_ups-hid.c, drivers/hidparser.c, drivers/idowell-hid.c, drivers/powervar-hid.c, drivers/salicro-hid.c: drivers/hidparser.c \+ \*-hid.c: include "config.h" first
- drivers/generic\_modbus.c: handle the two APIs for libmodbus timeout setting
- m4/nut\_check\_libmodbus.m4: in tests for API, the AC\_DEFINE must be used with exact macro names (not m4/shell variables)
- m4/nut\_check\_libmodbus.m4: in tests for API, clarify if old API (timeval) can be used with variables from new API (uint32) set into the struct
- m4/nut\_check\_libmodbus.m4: in tests for API, "new/old" comments were confused
- m4/nut\_check\_libmodbus.m4: in tests for API, initialize modbus\_t \*ctx differently
- m4/nut\_check\_libmodbus.m4: test actively for the modbus timeout API (count and type of args used)
- m4/nut\_check\_libmodbus.m4: convert a code block from plain shell to autoscript
- m4/nut\_check\_libmodbus.m4: test for presence of modbus\_set\_byte\_timeout() and modbus\_set\_response\_timeout()
- m4/ax\_c\_pragmas.m4: detect support for (ignoring) "-Wsign-conversion"
- m4/ax\_c\_pragmas.m4: add guards to call AX\_C\_PRINTF\_STRING\_NULL and AX\_C\_PRAGMAS logic only once
- drivers/generic\_modbus.c: bump DRIVER\_VERSION for feature change (connection timeout handling)

**2.875 2022-01-11 Dimitris Economou <dimitris.s.economou@gmail.com>**

- drivers/adele\_cbi.c, drivers/adele\_cbi.h: ghost alarms bug fix, other bug fixes
  - drivers/adele\_cbi.c, drivers/adele\_cbi.h: ghost alarms bug fix, other bug fixes
  - drivers/adele\_cbi.c, drivers/adele\_cbi.h: ghost alarms bug fix, other bug fixes
  - drivers/adele\_cbi.c, drivers/adele\_cbi.h: ghost alarms bug fix, other bug fixes
-

**2.876 2022-01-11 Dave Williams <dave@opensourcesolutions.co.uk>**

- drivers/cps-hid.c: New HID fix strategy after consultation with CPS It appears both input and output LogMin and LogMax values are incorrect as the rated voltage (for EU models) is 170v to 270v which is outside the logical limits reported by the HID. The fix checks for the error (loosely) and then applies reasonable values (0v and 511v) to allow the actual input and output voltages to be reported rather than be constrained to the limits.

**2.877 2022-01-10 Jim Klimov <jimklimov@gmail.com>**

- docs/man/powercom.txt: Update powercom.txt Sentence restructure

**2.878 2022-01-10 Jim Klimov <jim@jimklimov.com>**

- .github/pull\_request\_template.md: pull\_request\_template.md: update and reshuffle check-list items
- .../{PULL\_REQUEST\_TEMPLATE/nut-driver-PR.md ⇒ pull\_request\_template.md}: Move fancy-named PR template to plain .github/pull\_request\_template.md
- drivers/salicru-hid.c, scripts/upower/95-upower-hid.rules: drivers/salicru-hid.c: add known compatibility for Salicru SLC TWIN (PRO2, PRO3, RT3) per reports in [issue #1142](#)
- data/driver.list.in: add known compatibility for Salicru TWIN (PRO2, PRO3, RT3) per reports in [issues #450](#) and [#1142](#)
- .github/PULL\_REQUEST\_TEMPLATE/nut-driver-PR.md: Add .github/PULL\_REQUEST\_TEMPLATE/nut-driver-PR.md template
- data/driver.list.in: fix English typos in comment
- docs/developers.txt: remind to update docs/acknowledgements.txt when adding vendor-backed support
- docs/man/usbhid-ups.txt: fix reference to data/driver.list (typo in filename)

**2.879 2022-01-10 Dimitris Economou <dimitris.s.economou@gmail.com>**

- drivers/adele\_cbi.c, drivers/adele\_cbi.h: first testing release
- drivers/adele\_cbi.c, drivers/adele\_cbi.h: first testing release
- drivers/adele\_cbi.c, drivers/adele\_cbi.h: first testing release
- drivers/adele\_cbi.c, drivers/adele\_cbi.h: first testing release

**2.880 2022-01-10 Alerexsoftware <Alerex.software@alerex.com.tw>**

- data/driver.list.in: update the driver.list.in

**2.881 2022-01-09 Rouben Tchakhmakhtchian <rouben@rouben.net>**

- docs/man/powercom.txt, drivers/powercom.c: Powercom driver (drivers/powercom.c) version bump from 0.17 to 0.18: \* Implement configuration flag "nobt" to skip battery test during initialization \* Cleanup old code to use testvar() for config parameter checks in upsdv\_initups() \* Add nobt flag to sample config file in built-in doc Powercom driver man page (docs/man/powercom.txt) update to explain nobt flag
-

**2.882 2022-01-09 Dimitris Economou <dimitris.s.economou@gmail.com>**

- drivers/adele\_cbi.c, drivers/adele\_cbi.h: alrm\_t, alrm\_ar\_t data structures, construction of upsdrv\_updateinfo in progress
- drivers/adele\_cbi.c, drivers/adele\_cbi.h: alrm\_t, alrm\_ar\_t data structures, construction of upsdrv\_updateinfo in progress
- drivers/adele\_cbi.c, drivers/adele\_cbi.h: alrm\_t, alrm\_ar\_t data structures, construction of upsdrv\_updateinfo in progress
- drivers/adele\_cbi.c, drivers/adele\_cbi.h: alrm\_t, alrm\_ar\_t data structures, construction of upsdrv\_updateinfo in progress

**2.883 2022-01-08 Dimitris Economou <dimitris.s.economou@gmail.com>**

- drivers/adele\_cbi.c, drivers/adele\_cbi.h: structure device data, code get\_dev\_state, in progress
- drivers/adele\_cbi.c, drivers/adele\_cbi.h: structure device data, code get\_dev\_state, in progress
- drivers/adele\_cbi.c, drivers/adele\_cbi.h: structure device data, code get\_dev\_state, in progress
- drivers/adele\_cbi.c, drivers/adele\_cbi.h: structure device data, code get\_dev\_state, in progress

**2.884 2022-01-07 Jim Klimov <jimklimov+nut@gmail.com>**

- tools/nut-usbinfo.pl: be sure to have PATH\_MAX defined (for usb.h that did not bother by itself)
- drivers/usb-common.h: be sure to have PATH\_MAX defined (for usb.h that did not bother by itself)

**2.885 2022-01-07 Dimitris Economou <dimitris.s.economou@gmail.com>**

- drivers/adele\_cbi.h: register status values and masks added
- drivers/adele\_cbi.h: register status values and masks added
- drivers/adele\_cbi.h: register status values and masks added
- drivers/adele\_cbi.h: register status values and masks added

**2.886 2022-01-06 Jim Klimov <jim@jimklimov.com>**

- Jenkinsfile-dynamatrix: Revert "Jenkinsfile-dynamatrix: be sure to reset slowBuild configs over dynacfgBase" This reverts commit 18cf19ebc7e01f30c3d84c7b3b8f69e961429ebb as the "design flaw" which that change worked around should now be (hopefully) fixed in the jenkins-fynamatrix library itselg.

**2.887 2022-01-06 Dimitris Economou <dimitris.s.economou@gmail.com>**

- drivers/adele\_cbi.c, drivers/adele\_cbi.h: under construction
  - drivers/Makefile.am: Makefile.am modifications
  - drivers/adele\_cbi.c, drivers/adele\_cbi.h: under construction
  - drivers/Makefile.am: Makefile.am modifications
  - drivers/adele\_cbi.c, drivers/adele\_cbi.h: under construction
  - drivers/Makefile.am: Makefile.am modifications
  - drivers/adele\_cbi.c, drivers/adele\_cbi.h: under construction
-

**2.888 2022-01-05 Jim Klimov <jimklimov+nut@gmail.com>**

- m4/nut\_check\_cppcheck.m4: relax required tool version for cppcheck\*.xml generation
- Makefile.am: fix dependencies for cppcheck\*.xml generation

**2.889 2022-01-05 Jim Klimov <jim@jimklimov.com>**

- Jenkinsfile-dynamatrix: fix dynamatrixAxesCommonEnvCartesian cases to group the variables we apply as one bunch, not as several separate hits
- Jenkinsfile-dynamatrix: define dynacfgPipeline.excludeCombos\_DEFAULT (mismatched ARCHes only)
- tools/nut-scanner/scan\_avahi.c: avoid implicit case fallthrough
- Jenkinsfile-dynamatrix: be sure to reset slowBuild configs over dynacfgBase
- Jenkinsfile-dynamatrix: avoid running "cppcheck" several times per host

**2.890 2022-01-04 Jim Klimov <jim@jimklimov.com>**

- Jenkinsfile-dynamatrix: reinstate excludeCombos for autotools-only builds (fightwarn) to avoid unsupported ARCH-bits mix builds

**2.891 2022-01-04 Dimitris Economou <dimitris.s.economou@gmail.com>**

- drivers/generic\_modbus.c: comment and code alignment fixes

**2.892 2022-01-03 Jim Klimov <jimklimov+nut@gmail.com>**

- ci\_build.sh: set DO\_CLEAN\_CHECK=no for default-tgt:cppcheck or docs-building scenarios by default, so we can get/archive those costly media files
- Jenkinsfile-dynamatrix: set DO\_CLEAN\_CHECK=no for default-tgt:cppcheck scenarios, so we can get that analysis data

**2.893 2022-01-02 Jim Klimov <jim@jimklimov.com>**

- Jenkinsfile-dynamatrix: fix "Default autotools driven build with default warning levels (gnu99/gnu\+\+11)" dynamatrixAxesVirtualLabelsMap mergeMode from "merge" to "replace" (want to only build listed scenarios, not everything possible in the matrix)

**2.894 2021-12-30 Jim Klimov <jimklimov+nut@gmail.com>**

- tools/nut-scanner/nutscan-ip.c: include config.h first
  - m4/nut\_compiler\_family.m4: do not test for "-fcolor-diagnostics" - redundant for clang, and sometimes toxic for gcc
  - drivers/Makefile.am: snmp-ups uses fabsf() so needs libm
  - drivers/nut-libfreeipmi.c: include config.h first
  - drivers/microsol-apc.c: include config.h first
  - drivers/genericups.c: include config.h first
  - include/nut\_stdint.h: define SSIZE\_MAX if missing
  - drivers/serial.h: pull more includes
-

**2.895 2021-12-30 Jim Klimov <jim@jimklimov.com>**

- Jenkinsfile-dynamatrix: avoid using undefined (null) excludeCombos\_DEFAULT
  - Jenkinsfile-dynamatrix: fix references to excludeCombos: ... axisCombos\_COMPILER\_(NOT\_)GCC
  - docs/developers.txt, docs/nut.dict: docs/developers.txt: update about C89/GNU89 support (with GCC toolkit)
  - Jenkinsfile-dynamatrix: separate C89/C90/ANSI builds with GCC (can actually pass strict and GNU modes) and CLANG (more pedantic)
  - Jenkinsfile-dynamatrix: typo fix for disableSlowBuildCIBuildExperimentalANSI
  - drivers/Makefile.am: metasys uses fabsf() so needs libm
  - drivers/nutdrv\_qx.c: fix comments to C-style
  - drivers/powercom.c: fix comments to C-style
  - drivers/microdowell.h: fix comments to C-style
  - drivers/solis.h: fix comments to C-style
  - drivers/libshut.c: fix comments to C-style
  - drivers/openups-hid.c: include config.h first
  - drivers/snmp-ups.c: fix comments to C-style
  - drivers/riello\_usb.c: fix comments to C-style
  - drivers/generic\_modbus.h: fix comments to C-style
  - tools/nut-scanner/scan\_xml\_http.c: fix comments to C-style
  - tools/nut-scanner/nut-scanner.c: fix comments to C-style
  - tools/nut-scanner/nutscan-init.c: fix comments to C-style
  - tools/nut-scanner/scan\_eaton\_serial.c: fix comments to C-style
  - tools/nut-scanner/scan\_snmp.c: fix comments to C-style
  - tools/nut-scanner/scan\_nut.c: fix comments to C-style
  - server/upsd.c: fix comments to C-style
  - server/conf.c: fix comments to C-style
  - drivers/bcmxcp.c: fix comments to C-style
  - drivers/main.c: fix comments to C-style
  - common/upsconf.c: include config.h first
  - common/str.c: fix comments to C-style
  - server/user.c: include config.h first
  - server/desc.c: include config.h first
  - drivers/upsdrvctl.c: include config.h first
  - drivers/riello\_usb.c: include config.h first
  - drivers/riello\_ser.c: include config.h first
  - drivers/rhino.c: include config.h first
-

- drivers/mge-utalk.c: include config.h first
- drivers/libhid.c: include config.h first, and try to get strings.h explicitly
- drivers/huawei-ups2000.c: include config.h first
- drivers/dummy-ups.c: include config.h first
- drivers/dstate.c: include config.h first
- tools/nut-scanner/scan\_eaton\_serial.c: try to include explicitly both of (sys/)signal.h
- server/upsd.c: try to include explicitly both of (sys/)signal.h
- tools/nut-scanner/nutscan-serial.c: include config.h first
- tools/nut-scanner/nutscan-device.c: include config.h first
- drivers/mge-xml.c: include config.h first
- drivers/libshut.c: include config.h first
- common/state.c: include config.h first
- common/str.c: include config.h first, and try to get strings.h explicitly
- include/common.h: try to include explicitly string(s).h and (sys/)signal.h
- configure.ac: test more actively for strcasecmp, strncasecmp, strdup and usleep methods that are problematic for strict C99+ builds
- configure.ac: detect explicitly string(s).h and (sys/)signal.h

## 2.896 2021-12-29 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/nut-libfreeipmi.c: be pragmatic about possibly unreachable error handling in arch-dependent range check
  - drivers/nut-libfreeipmi.c: mark local vars as static
  - configure.ac: constrain warning-tweaks against macro str\*() and ntohl/htonl to LIBNETSNMP\_CFLAGS (empirically)
  - configure.ac: detect if compiler (e.g. older clang-3.4) has a problem with built-in/macro variants of system str\*() and htonl/ntohl functions at our higher warning levels, and mitigate that
  - m4/nut\_compiler\_family.m4: rearrange detection order of compiler flags
  - drivers/generic\_modbus.c: quiesce warnings about unreachable-code (default after full enum-case handling) with older clang
  - drivers/bcmxcp\_usb.c: ignore potentially unreachable code in assert()
  - drivers/nutdrv\_qx.c: quiesce warnings about unreachable-code (default after full enum-case handling) with older clang
  - drivers/upscode2.c: quiesce warnings about unreachable-code (default after full enum-case handling) with older clang
  - drivers/hidparser.c: ignore potentially unreachable code in platforms-dependent range checks
  - drivers/libhid.c: ignore potentially unreachable code in platforms-dependent range checks
  - drivers/libshut.c: tell compiler that we do want to treat a char array (managed by comms code) as the aligned pointer to struct
  - drivers/libshut.c: adjust data\_size usage to usb\_ctrl\_charbufsize typedef - fix pragmas for range-checks
  - drivers/usbhid-ups.c: quiesce warnings about unreachable-code (default after full enum-case handling) with older clang
  - drivers/genericups.c: ignore potentially unreachable code in platforms-dependent range checks
  - drivers/bestuferrups.c: ignore potentially unreachable code in assert(0)
-

- drivers/bestfcom.c: ignore potentially unreachable code in assert(0)
- clients/upsmon.c: ignore potentially unreachable code in platforms-dependent range checks
- tools/nut-scanner/scan\_nut.c: ignore potentially unreachable code in platforms-dependent range checks
- tools/nut-scanner/nutscan-init.c: ignore potentially unreachable code in platforms-dependent range checks
- server/upsd.c: quiesce warnings about unreachable-code (default after full enum-case handling) with older clang
- configure.ac: update "clang-medium" warnings level with "-Wno-conversion" for older clang releases
- ci\_build.sh: introduce CI\_FAILFAST for BUILD\_TYPE=default-all-errors
- ci\_build.sh: use configurable --enable-Wcolor for compiler warnings in default quick build
- ci\_build.sh: use configurable --enable-Wcolor for compiler warnings in all BUILD\_TYPES
- configure.ac, m4/nut\_compiler\_family.m4: configure.ac \+ m4/nut\_compiler\_family.m4: allow configurable --enable-Wcolor for compiler warnings
- m4/nut\_compiler\_family.m4: add diagnostics-color support for GCC
- configure.ac, m4/ax\_check\_compile\_flag.m4, m4/nut\_compiler\_family.m4: m4/nut\_compiler\_family.m4: use AX\_CHECK\_COMPILE\_FLAG to detect generic options supported by compilers

#### 2.897 2021-12-29 Jim Klimov <jim@jimklimov.com>

- configure.ac: zero-init struct in ntohl/htonl warning-tweaks test code

#### 2.898 2021-12-28 Jim Klimov <jimklimov@gmail.com>

- drivers/usbhid-ups.c: fix\_report\_desc(): avoid shadowing global var with method arg name
- drivers/usbhid-ups.c: fix\_report\_desc(): mark NUT\_UNUSED\_VARIABLES

#### 2.899 2021-12-28 Jim Klimov <jim@jimklimov.com>

- configure.ac: pass "-Wno-disabled-macro-expansion" in clang-medium and clang-hard modes, to avoid choking on systems-provided strcmp() etc.
  - drivers/bcmxcp\_ser.c: pw\_comm\_setup(): ignore potentially unreachable code in platforms-dependent range checks
  - tools/nut-scanner/nut-scanner.c: ignore potentially unreachable code in platforms-dependent range checks
  - common/common.c: get\_user\_pwent(): ignore "-Wunreachable-code" where we were required to have a return
  - common/common.c: get\_max\_pid\_t(): avoid warnings in C89/C90/ANSI builds **because** we check for LLONG\_MAX macro
  - common/common.c: get\_max\_pid\_t(): ignore "-Wunreachable-code"
  - common/common.c: vupslog(): ignore "-Wformat-nonliteral" with older clang too
  - configure.ac: with (older) clang, ignore "unused-arguments" (of clang program)
  - server/upsd.c: mainloop(): ignore "-Wcovered-switch-default" with older clang too
  - clients/upsclient.c: upscli\_init(): fix "ret" to "long", to match some versions of SSL\_CTX\_ctrl() (from openssl/ssl.h e.g. in FreeBSD)
  - drivers/riello\_usb.c: riello\_command(): handle possibly undefined ETIME
-



- drivers/blazer\_usb.c: blazer\_command(): handle possibly undefined ETIME
- drivers/blazer\_usb.c: phoenix\_command(): avoid fall-through in a case
- drivers/nutdrv\_qx.c: qx\_command(): handle possibly undefined ETIME
- drivers/nutdrv\_qx.c: phoenix\_command(): avoid fall-through in a case
- drivers/mge-hid.c: nominal\_output\_voltage\_fun(): explicitly fall-through in a case
- drivers/libshut.c: shut\_control\_msg(): explicitly fall-through in a case, and finish the default with a break
- m4/nut\_compiler\_family.m4: comment away setting "-isystem ..." common paths early in CFLAGS
- configure.ac: set "-Wno-system-headers" early in gcc/clang medium and hard warning levels
- m4/nut\_compiler\_family.m4: set "-isystem ..." paths early in CFLAGS
- Jenkinsfile-dynamatrix: expel other C89/C90/ANSI builds to only happen if not disableSlowBuildCIBuildExperimentalANSI and only in branches (or PRs to) matching \~/fightwarn.**89**./ currently
- configure.ac: try to handle warnings in system headers at our medium and hard levels
- docs/man/nutdrv\_qx.txt: mention Armac in SUPPORTED HARDWARE section, and wrap long lines there
- docs/man/nutdrv\_qx.txt, docs/nut.dict: docs/man/nutdrv\_qx.txt: port notes for "armac" subdriver from source code
- drivers/nutdrv\_qx.c: armac\_command(): move variable declarations to top of scope
- drivers/nutdrv\_qx.c: armac\_command(): fix varied int types to size\_t, and move equation sides around to avoid signedness
- drivers/nutdrv\_qx.c: armac\_command(): zero out whole tmpbuf[], not one element
- drivers/nutdrv\_qx.c: normalize whitespace for "armac" code addition
- drivers/nutdrv\_qx.c: add © for "armac" code addition
- docs/ci-farm-lxc-setup.txt, docs/nut.dict: docs/ci-farm-lxc-setup.txt: add a troubleshooting section, with entry for cgroupsv1-only guests on a cgroupsv2-only host
- docs/config-prereqs.txt, docs/nut.dict: docs/config-prereqs.txt: add a chapter for CentOS 7 agent preparation
- docs/config-prereqs.txt: clarify that OpenBSD multitude of autotools versions is a blessing, not a pain ;)
- docs/config-prereqs.txt: clarify that JDK installation in Debian guests may need /proc submounted
- docs/ci-farm-lxc-setup.txt: move "sudo" installation away from useradd example (so "apt-get" does not pollute non-debian guest examples)
- docs/ci-farm-lxc-setup.txt: change CentOS7 example guest name from ...-x86\_64 to ...-x86-64 (or -amd64) to avoid loss of character
- docs/ci-farm-lxc-setup.txt: avoid "AltArch" CentOS i686, use just x86\_64 as something easier to get hands on

## 2.900 2021-12-27 hunter86bg <hunter86\_bg@yahoo.com>

- data/driver.list.in: Add Cyber Power PR1500RT2U, fixes [nut#1191](#)
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**2.901 2021-12-27 Jim Klimov <jim@jimklimov.com>**

- docs/ci-farm-lxc-setup.txt: remind to revise container MAC addresses
- docs/ci-farm-lxc-setup.txt: clarify that "third-party distro" LXC helpers may need chiseling
- docs/ci-farm-lxc-setup.txt, docs/nut.dict: docs/ci-farm-lxc-setup.txt: hint at needed "pacman" for Arch Linux container installation
- docs/ci-farm-lxc-setup.txt, docs/nut.dict: docs/ci-farm-lxc-setup.txt: add installation of RPM based distros as guests on non-RPM (DEB) hosts
- docs/ci-farm-lxc-setup.txt: clarify how to find defined LXC templates, and get usage details about them

**2.902 2021-12-25 Tomasz Fortuna <bla@thera.be>**

- data/driver.list.in, docs/man/nutdrv\_qx.txt, docs/nut.dict, drivers/nutdrv\_qx.c: drivers/nutdrv\_qx.c: add support for Armac UPS (or maybe other richcomm\_usb like) Based on Armac R/2000I/PSW, but should support other UPSes that work with "PowerManagerII" software from Richcomm Technologies from around 2004-2005.

**2.903 2021-12-25 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/usb-common.h: map libusb\_detach\_kernel\_driver\_np (1.0) as usb\_detach\_kernel\_driver\_np (0.1)
- drivers/usb-common.h: map libusb\_detach\_kernel\_driver\_np (1.0) as usb\_detach\_kernel\_driver\_np (0.1)

**2.904 2021-12-25 Jim Klimov <jim@jimklimov.com>**

- drivers/riello\_ser.c: do not include hidparser.h (hiccups in usb-common.h due to lack of WITH\_LIBUSB\_x\_y)
  - drivers/riello\_ser.c: do not include hidparser.h (hiccups in usb-common.h due to lack of WITH\_LIBUSB\_x\_y)
  - drivers/libshut.c: adjust data\_size usage to usb\_ctrl\_charbufsize typedef
  - drivers/libshut.c: adjust data\_size usage to usb\_ctrl\_charbufsize typedef
  - drivers/nutdrv\_atcl\_usb.c, drivers/richcomm\_usb.c, drivers/usb-common.h, m4/nut\_check\_libusb.m4: m4/nut\_check\_libusb.m4, drivers/usb-common.h \+ nutdrv\_atcl\_usb.c  
richcomm\_usb.c: only apply usb\_detach\_kernel\_driver\_np to libusb-0.1 builds (no alias tricks)
  - drivers/libusb1.c, drivers/nutdrv\_atcl\_usb.c, drivers/richcomm\_usb.c, m4/nut\_check\_libusb.m4: m4/nut\_check\_libusb.m4, drivers/libusb1.c \+ nutdrv\_atcl\_usb.c  
richcomm\_usb.c: honor that libusb-1.0 may HAVE\_LIBUSB\_DETACH\_KERNEL\_DRIVER\_NP
  - drivers/nutdrv\_atcl\_usb.c, drivers/richcomm\_usb.c, drivers/usb-common.h, m4/nut\_check\_libusb.m4: m4/nut\_check\_libusb.m4, drivers/usb-common.h \+ nutdrv\_atcl\_usb.c  
richcomm\_usb.c: only apply usb\_detach\_kernel\_driver\_np to libusb-0.1 builds (no alias tricks)
  - drivers/libusb1.c, drivers/nutdrv\_atcl\_usb.c, drivers/richcomm\_usb.c, m4/nut\_check\_libusb.m4: m4/nut\_check\_libusb.m4, drivers/libusb1.c \+ nutdrv\_atcl\_usb.c  
richcomm\_usb.c: honor that libusb-1.0 may HAVE\_LIBUSB\_DETACH\_KERNEL\_DRIVER\_NP
-

**2.905 2021-12-24 Jim Klimov <jim@jimklimov.com>**

- drivers/nutdrv\_atcl\_usb.c, drivers/richcomm\_usb.c, drivers/riello\_usb.c: drivers/riello\_usb.c, richcomm\_usb.c, nutdrv\_atcl\_usb.c: fix remaining uses of (lib)usb\_strerror with nut\_usb\_strerror()
- configure.ac: update "clang-medium" warnings pre-set with -Wno-incompatible-pointer-types-discards-qualifiers
- drivers/libusb1.c: some more whitespace and comment fixes
- drivers/nutdrv\_atcl\_usb.c, drivers/richcomm\_usb.c, drivers/riello\_usb.c: drivers/riello\_usb.c, richcomm\_usb.c, nutdrv\_atcl\_usb.c: fix remaining uses of (lib)usb\_strerror with nut\_usb\_strerror()
- tools/nut-scanner/scan\_usb.c: missed whitespace fixes
- tools/nut-scanner/scan\_usb.c: comment "#else WITH\_LIBUSB\_..." in long blocks
- drivers/libshut.c: shut\_control\_msg(): data\_size is a "short int" (not size\_t) in this branch
- drivers/libusb1.c: HAVE\_LIBUSB\_DETACH\_KERNEL\_DRIVER needs "#ifdef" not "#if"
- drivers/nutdrv\_atcl\_usb.c, drivers/richcomm\_usb.c, tools/nut-scanner/scan\_usb.c: Convert C code from "#ifdef WITH\_LIBUSB\_x\_y" to "#if" tests for defined value - merging missed a few in libusb-1.0\+0.1 branch
- configure.ac: update "clang-medium" warnings pre-set with -Wno-incompatible-pointer-types-discards-qualifiers
- drivers/libshut.c: shut\_control\_msg(): data\_size is a "short int" (not size\_t) in this branch
- drivers/libusb1.c: HAVE\_LIBUSB\_DETACH\_KERNEL\_DRIVER needs "#ifdef" not "#if"
- configure.ac, m4/nut\_check\_libusb.m4: m4/nut\_check\_libusb.m4 \+ configure.ac: port newer solution for libusb version selection from libusb-1.0 branch

**2.906 2021-12-24 Dimitris Economou <dimitris.s.economou@gmail.com>**

- drivers/generic\_modbus.c: fix in modbus response value check

**2.907 2021-12-23 dtsecon <dimitris.s.economou@gmail.com>**

- drivers/generic\_modbus.c, drivers/generic\_modbus.h: handle broken pine error in modbus TCP connections, configurable modbus response timeouts between requests and frame bytes

**2.908 2021-12-23 Jim Klimov <jimklimov+nut@gmail.com>**

- ci\_build.sh: separate the "RES" vars used for configure\_nut() and default-all-errors processing (extend to libusb-1.0\* branches)
  - tests/getvaluetest.c: include "config.h" first
  - tests/Makefile.am: only TEST getvaluetest "if WITH\_USB"
  - m4/nut\_check\_libusb.m4: do not report misleading "none (libusb-0.1-config)" as the detected libusb version Seems this confused not only human readers, but also the verdict - whether we build WITH\_USB
  - ci\_build.sh: separate the "RES" vars used for configure\_nut() and default-all-errors processing (extend to libusb-1.0\* branches)
  - tests/getvaluetest.c: include "config.h" first
  - tests/Makefile.am: only TEST getvaluetest "if WITH\_USB"
-

**2.909 2021-12-22 Jim Klimov <jim@jimklimov.com>**

- clients/upsclient.c: upscli\_tryconnect(): in logged messages, clarity "connect to NUT server %s" Otherwise nut-scanner output looks awkward when looking at large subnets with many protocols (including "Old NUT")
- tools/nut-scanner/scan\_snmp.c: convert logging in the main loop from a lot of fprintf() to manageable upsdebugx()
- tools/nut-scanner/scan\_ipmi.c: convert logging in the main loop from a lot of fprintf() to manageable upsdebugx()
- ci\_build.sh: fix a typo, copy-pasted around
- tests/Makefile.am: only build getvaluetest "if WITH\_USB"
- drivers/blazer\_usb.c: forget libusb\_device\_handle
- drivers/libhid.h: forget libusb\_device\_handle
- ci\_build.sh: fix a typo, copy-pasted around
- tests/Makefile.am: only build getvaluetest "if WITH\_USB"
- drivers/blazer\_usb.c: forget libusb\_device\_handle
- drivers/libhid.h: forget libusb\_device\_handle

**2.910 2021-12-21 Jim Klimov <jimklimov@gmail.com>**

- drivers/legrand-hid.c: fix type of usb\_device\_id\_t vendorID/productID to uint16\_t \* {usb,hid}.c: sentinel in a table of uint16\_t can not be -1
- drivers/nutdrv\_qx.c: Update nutdrv\_qx.c Fix this on some of the CI platforms: ```` [2021-12-21T09:21:47.623Z] nutdrv\_qx.c:1665:2: error: initialization from incompatible pointer type [-Werror] [2021-12-21T09:21:47.623Z] { USB\_DEVICE(0xffff, 0x0000), NULL, NULL, &ablerex\_subdriver }, /\* Ablrex 625L USB \*/ [2021-12-21T09:21:47.623Z] ^ [2021-12-21T09:21:47.623Z] nutdrv\_qx.c:1665:2: error: (near initialization for qx\_usb\_id[1].fun) [-Werror] ````
- docs/nut.dict: Update nut.dict Update for [PR #1135](#)

**2.911 2021-12-21 Jim Klimov <jim@jimklimov.com>**

- configure.ac: switch default warnings level to "medium"
  - drivers/usbhid-ups.c: range-check quiesced by pragmas (GCC)
  - drivers/libusb0.c: do not separate if-clause parenthesis by pragmas (GCC)
  - drivers/libusb1.c: do not separate if-clause parenthesis by pragmas (GCC)
  - drivers/libshut.c: do not separate if-clause parenthesis by pragmas (GCC)
  - drivers/hidparser.c: do not separate if-clause parenthesis by pragmas (GCC)
  - configure.ac: switch default warnings level to "medium"
  - drivers/usbhid-ups.c: range-check quiesced by pragmas (GCC)
  - drivers/libusb0.c: do not separate if-clause parenthesis by pragmas (GCC)
  - drivers/libusb1.c: do not separate if-clause parenthesis by pragmas (GCC)
  - drivers/libshut.c: do not separate if-clause parenthesis by pragmas (GCC)
  - drivers/hidparser.c: do not separate if-clause parenthesis by pragmas (GCC)
  - drivers/usb-common.h: include "common.h"
-

- drivers/usb-common.h: include "common.h"
- docs/nut.dict: update for recent NEWS
- NEWS: prepare for nutdrv-qx legrand merge in 2.7.5 timeline
- NEWS: prepare for nutdrv-qx ablerex merge in 2.7.5 timeline
- NEWS: know about usbhid-ups Delta Minuteman support for NUT v2.7.5
- NEWS: fix USB LogMin/LogMax mismatch reporting (just once!) for NUT v2.7.5
- NEWS: add a little delay between multicommands [[PR #1228](#)] for NUT v2.7.5
- NEWS: prepare for libusb-1.0 merge in 2.7.5 timeline
- ci\_build.sh: separate the "RES" vars used for configure\_nut() and default-all-errors processing
- drivers/usbhid-ups.c: date\_conversion\_fun(): hush a string overflow warning (overkill the buffer size a bit)
- docs/developers.txt, docs/nut.dict: docs/developers.txt: note that we define "gcc-medium\gcc-hard" warnings without "pedantic" for C89/C90/ANSI builds (flaws in OS headers are out of our control)
- configure.ac: define "gcc-medium\gcc-hard" warnings with "extra" always, but without "pedantic" for C89/C90/ANSI builds (flaws in OS headers are out of our control)
- tests/Makefile.am: consider LIBUSB\_CFLAGS when building parser test
- Jenkinsfile-dynamatrix: separate (and disable by default) ANSI C build scenarios, they are too noisy in fightwarn for no real good
- common/common.c: s\_upsdebug\*(): move fmt2[] declarations to top from code
- common/common.c: fix comments from // to /\* \*/
- drivers/hidparser.h: include "config.h"
- server/upsd.c: #include config.h first
- scripts/upower/95-upower-hid.rules: Update 95-upower-hid.rules Add VID/PID for Minuteman UPS
- drivers/blazer\_usb.c: cast tmp as char\* Older compilers complain that we are: passing argument 3 of *usb\_interrupt\_read* from incompatible pointer type expected *char* but argument is of type *char* ()[512]

## 2.912 2021-12-20 hunter86bg <[hunter86\\_bg@yahoo.com](mailto:hunter86_bg@yahoo.com)>

- data/driver.list.in: Add Powerwalker VFI 3000 TG Online UPS to driver.list.in (#1224)

## 2.913 2021-12-20 Jim Klimov <[jimklimov@gmail.com](mailto:jimklimov@gmail.com)>

- drivers/nutdrv\_qx.c: Update nutdrv\_qx.c Whitespace fix
  - drivers/hidparser.c: Update hidparser.c Fix whitespace in recent changes for LogMin/LogMax rectification
-

**2.914 2021-12-20 Jim Klimov <jim@jimklimov.com>**

- drivers/libusb1.c: fix whitespace (break long lines)
- drivers/libshut.h: define ERROR\_ACCESS etc. used for USB(-like) result states
- drivers/libusb1.c: fix whitespace (break long lines)
- drivers/libshut.h: define ERROR\_ACCESS etc. used for USB(-like) result states
- tools/nut-scanner/scan\_usb.c: fix whitespace (indentation etc)
- drivers/nutdrv\_atcl\_usb.c: drop local libusb-0.1 vs 1.0 definitions now provided by usb-common.h
- m4/nut\_check\_libusb.m4: update comments
- drivers/usb-common.h: whitespace-separate definitions of ERROR\_ACCESS etc., nut\_usb\_strerror() and similar macros
- drivers/bcmxcp\_usb.c: comment FIXME for possible uses of usb\_ctrl\_\* typedefs
- drivers/richcomm\_usb.c: fix whitespace (break long lines)
- drivers/riello\_usb.c: fix whitespace (break long lines)
- tools/nut-scanner/scan\_usb.c: fix whitespace (indentation etc)
- drivers/nutdrv\_atcl\_usb.c: drop local libusb-0.1 vs 1.0 definitions now provided by usb-common.h
- m4/nut\_check\_libusb.m4: update comments
- drivers/usb-common.h: whitespace-separate definitions of ERROR\_ACCESS etc., nut\_usb\_strerror() and similar macros
- drivers/bcmxcp\_usb.c: comment FIXME for possible uses of usb\_ctrl\_\* typedefs
- drivers/richcomm\_usb.c: fix whitespace (break long lines)
- drivers/riello\_usb.c: fix whitespace (break long lines)
- tools/nut-scanner/scan\_usb.c: fix whitespace (indentation etc)
- drivers/usbhid-ups.c: fix whitespace (break long lines)
- drivers/riello\_usb.c: fix whitespace (break long lines)
- drivers/richcomm\_usb.c: fix whitespace (break long lines)
- drivers/nutdrv\_qx.c: fix whitespace (break long lines)
- drivers/blazer\_usb.c: fix whitespace (break long lines)

**2.915 2021-12-19 Scott Colby <scott@scolby.com>**

- drivers/usbhid-ups.c: Add a short sleep between fallback instcmds in usbhid-ups. For some devices, missing instcmds are emulated by calling two instcmds that do exist in sequence. For some devices, when these commands arrive too quickly, they are not properly processed. (One, both, or neither of the commands are acted upon.) Adding a 1/8th-second delay (125,000 microseconds) between the two instcmds that make up the fallback command has worked to make the TrippLite AVR750U (new version with the 3024 productId/protocol) behave consistently when using the fallback commands (shutdown.return and shutdown.stayoff). This delay is also short enough that it seems unlikely to cause a problem for any devices which don't exhibit this issue.

**2.916 2021-12-19 Jim Klimov <jim@jimklimov.com>**

- drivers/hidparser.c, drivers/hidparser.h, drivers/libhid.c, drivers/libhid.h, drivers/libshut.c, drivers/libshut.h, drivers/libusb0.c, drivers/libusb1.c, drivers/nut\_libusb.h, drivers/nutdrv\_atcl\_usb.c, drivers/richcomm\_usb.c, drivers/riello\_usb.c, drivers/tripplite\_usb.c, drivers/usb-common.h, drivers/usbhid-ups.c: drivers (c,h) USB, HID and SHUT: converge parameter usage from strict int types to backend API dependent "usb\_ctrl\_\*" and "usb\_dev\_handle" typedefs, then range-check and cast the numbers, and avoid build warnings
- drivers/hidparser.c, drivers/hidparser.h, drivers/libhid.c, drivers/libhid.h, drivers/libshut.c, drivers/libshut.h, drivers/libusb0.c, drivers/libusb1.c, drivers/nut\_libusb.h, drivers/nutdrv\_atcl\_usb.c, drivers/richcomm\_usb.c, drivers/riello\_usb.c, drivers/tripplite\_usb.c, drivers/usb-common.h, drivers/usbhid-ups.c: drivers (c,h) USB, HID and SHUT: converge parameter usage from strict int types to backend API dependent "usb\_ctrl\_\*" and "usb\_dev\_handle" typedefs, then range-check and cast the numbers, and avoid build warnings
- m4/nut\_check\_libusb.m4: make sure (missing) methods from another API are defined in config.h (so "#if HAVE\_..." is valid and not guessed as 0)
- m4/nut\_check\_libusb.m4: make sure (missing) methods from another API are defined in config.h (so "#if HAVE\_..." is valid and not guessed as 0)
- ci\_build.sh: allow to build custom NUT\_USB\_VARIANTS=libusb-x.y (not plain "x.y")
- ci\_build.sh: allow to build custom NUT\_USB\_VARIANTS and skip building a separate NUT\_SSL\_VARIANTS=auto
- ci\_build.sh: allow to build custom NUT\_USB\_VARIANTS=libusb-x.y (not plain "x.y")
- ci\_build.sh: allow to build custom NUT\_USB\_VARIANTS and skip building a separate NUT\_SSL\_VARIANTS=auto
- ci\_build.sh: allow to build custom NUT\_USB\_VARIANTS=libusb-x.y (not plain "x.y")
- ci\_build.sh: allow to build custom NUT\_USB\_VARIANTS and skip building a separate NUT\_SSL\_VARIANTS=auto
- drivers/hidparser.c, drivers/hidparser.h: drivers/hidparser.{c,h}: fix ReportDescSize from int to size\_t

**2.917 2021-12-18 Dave Williams <dave@opensourcesolutions.co.uk>**

- drivers/apc-hid.c, drivers/arduino-hid.c, drivers/belkin-hid.c, drivers/cps-hid.c, drivers/delta\_ups-hid.c, drivers/explore-hid.c, drivers/hidtypes.h, drivers/idowell-hid.c, drivers/liebert-hid.c, drivers/mge-hid.c, drivers/openups-hid.c, drivers/powercom-hid.c, drivers/powervar-hid.c, drivers/salicro-hid.c, drivers/tripplite-hid.c, drivers/usbhid-ups.c, drivers/usbhid-ups.h: Fix #439 Incorrect Output Voltage on CPS\*EFPCLCD

**2.918 2021-12-16 Jim Klimov <jim@jimklimov.com>**

- drivers/usb-common.h: define PRI\_NUT\_USB\_CTRL\_CHARBUFSIZE, usb\_ctrl\_msgvalue and usb\_ctrl\_strindex
  - drivers/usb-common.h: clarify that libusb timeouts are in milliseconds (with variouts int types per API version)
  - drivers/usb-common.h: update comment about mapping from libusb-0.1 to libusb-1.0 API
  - drivers/nut\_libusb.h: comment the practical mess around hid\_rep\_index
  - drivers/usb-common.h: comment which API version each endif is for
  - drivers/usb-common.h: note the arg type for libusb\_strerror() in comments to our macro wrapper nut\_usb\_strerror()
  - drivers/usb-common.h: update heading comment with references to different API docs
  - drivers/usb-common.h: update heading comment and © for libusb-1.0 related changes
  - drivers/usb-common.h: define PRI\_NUT\_USB\_CTRL\_CHARBUFSIZE, usb\_ctrl\_msgvalue and usb\_ctrl\_strindex
  - drivers/usb-common.h: clarify that libusb timeouts are in milliseconds (with variouts int types per API version)
-



- drivers/usb-common.h: update comment about mapping from libusb-0.1 to libusb-1.0 API
- drivers/nut\_libusb.h: comment the practical mess around hid\_rep\_index
- drivers/usb-common.h: comment which API version each endif is for
- drivers/usb-common.h: note the arg type for libusb\_strerror() in comments to our macro wrapper nut\_usb\_strerror()
- drivers/usb-common.h: update heading comment with references to different API docs
- drivers/usb-common.h: update heading comment and © for libusb-1.0 related changes
- include/nut\_stdint.h: make sure we know PRIsize and PRIssize

### 2.919 2021-12-16 Ablerexsoftware <[Ablerex.software@ablerex.com.tw](mailto:Ablerex.software@ablerex.com.tw)>

- docs/acknowledgements.txt, docs/man/nutdrv\_qx.txt, docs/nutdrv\_qx-subdrivers.txt, drivers/Makefile.am, drivers/nutdrv\_qx.c: modify CI warnings and Replace the new sub driver

### 2.920 2021-12-15 Nick Briggs <[nicholas.h.briggs@gmail.com](mailto:nicholas.h.briggs@gmail.com)>

- drivers/hidparser.c: Move check for LogMax encoding error to parsing of report description At least one UPS [APC Back-UPS BX1600MI FW:294201G -302201G] is known to have encoding errors in its USB HID report description such that a conforming interpretation of the encoded LogicalMaximum value indicates that it is -1 and the resulting LogicalMin..LogicalMax range is 0..-1. The actual report values read are correctly encoded. Rather than log a range error each time a value is read we can detect the encoding error when the report description is read (once, at startup) and adjust for the encoding error at that time.

### 2.921 2021-12-15 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>

- drivers/libshut.c: shut\_control\_msg(): range-check data\_size before stuffing the number into a char
- drivers/libshut.c: range-check and cast ints to struct members and library args
- drivers/libshut.c: braces fix
- drivers/nut\_libusb.h, drivers/usb-common.h: drivers/usb-common.h \+ nut\_libusb.h: typedef more usb\_ctrl\_\* tokens to match libusb-0.1 vs 1.0 API
- drivers/libshut.c: shut\_control\_msg(): range-check data\_size before stuffing the number into a char
- drivers/libshut.c: range-check and cast ints to struct members and library args
- drivers/libshut.c: braces fix
- drivers/nut\_libusb.h, drivers/usb-common.h: drivers/usb-common.h \+ nut\_libusb.h: typedef more usb\_ctrl\_\* tokens to match libusb-0.1 vs 1.0 API
- drivers/libshut.h: whitespace fixes (make func ptrs more visible)
- drivers/libhid.c, drivers/libhid.h: drivers/libhid.{c,h}: HIDGetDataValue(), refresh\_report\_buffer(), get\_item\_buffered(): fix "age" from int to time\_t, to match time() operations
- drivers/usbhid-ups.c: date\_conversion\_fun(): comment and cast numeric type conversions

**2.922 2021-12-13 Jim Klimov <jim@jimklimov.com>**

- drivers/bcmxcp\_usb.c, drivers/blazer\_usb.c, drivers/nutdrv\_atcl\_usb.c, drivers/nutdrv\_qx.c, drivers/richcomm\_usb.c, drivers/riello\_usb.c, drivers/usb-common.h: USB: Rename typedef usb\_ctrl\_char to usb\_ctrl\_charbuf to avoid confsion (it is a char\* sibling, not plain char)
- drivers/libshut.h, drivers/nut\_libusb.h: drivers/nut\_libusb.h, libshut.h: whitespace fixes (align "version")
- drivers/bcmxcp\_usb.c, drivers/blazer\_usb.c, drivers/nutdrv\_atcl\_usb.c, drivers/nutdrv\_qx.c, drivers/richcomm\_usb.c, drivers/riello\_usb.c, drivers/usb-common.h: USB: Rename typedef usb\_ctrl\_char to usb\_ctrl\_charbuf to avoid confsion (it is a char\* sibling, not plain char)
- drivers/libshut.h, drivers/nut\_libusb.h: drivers/nut\_libusb.h, libshut.h: whitespace fixes (align "version")
- drivers/libusb.h: whitespace fixes (make func ptrs more visible)

**2.923 2021-12-10 Jim Klimov <jim@jimklimov.com>**

- drivers/usbhid-ups.c: current use of SHUT\_MODE relies on defined/not-defined, not on value for plain #if macro
  - drivers/nutdrv\_qx.c: adapt to usb-common.h and (usb\_ctrl\_char) casting
  - drivers/bcmxcp\_usb.c: adapt to usb-common.h and (usb\_ctrl\_char) casting
  - drivers/nutdrv\_atcl\_usb.c: adapt to usb-common.h and (usb\_ctrl\_char) casting
  - drivers/riello\_usb.c: adapt to usb-common.h and (usb\_ctrl\_char) casting
  - drivers/riello.h: do not define duplicate USB\_ENDPOINT\_IN/USB\_ENDPOINT\_OUT
  - aliases to real mappings with range-checks for libusb-1.0 API
  - drivers/usb-common.h: mark "static inline" functions with HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_TYPE\_LIMITS\_BE since not all C files call them
  - drivers/bcmxcp\_usb.c, drivers/blazer\_usb.c, drivers/libhid.h, drivers/nutdrv\_atcl\_usb.c, drivers/nutdrv\_qx.c, drivers/richcomm\_usb.c, drivers/riello\_usb.c, drivers/tripplite\_usb.c, drivers/usb-common.h: drivers/usb-common.h: consolidate libusb-0.1 vs 1.0 data/-func mappings from \*usb.c files
  - drivers/nut\_libusb.h, drivers/usb-common.h: drivers/nut\_libusb.h already includes "usb-common.h" so no need to pull LibUSB headers again
  - drivers/bcmxcp\_usb.c: range-check and cast args for usb\_control\_msg() ⇒ libusb\_control\_transfer() and usb\_interrupt\_read() ⇒ libusb\_interrupt\_transfer() for libusb-1.0 support
  - drivers/usbhid-ups.c: current use of SHUT\_MODE relies on defined/not-defined, not on value for plain #if macro
  - drivers/nutdrv\_qx.c: adapt to usb-common.h and (usb\_ctrl\_char) casting
  - drivers/bcmxcp\_usb.c: adapt to usb-common.h and (usb\_ctrl\_char) casting
  - drivers/nutdrv\_atcl\_usb.c: adapt to usb-common.h and (usb\_ctrl\_char) casting
  - drivers/riello\_usb.c: adapt to usb-common.h and (usb\_ctrl\_char) casting
  - drivers/riello.h: do not define duplicate USB\_ENDPOINT\_IN/USB\_ENDPOINT\_OUT
  - aliases to real mappings with range-checks for libusb-1.0 API
  - drivers/usb-common.h: mark "static inline" functions with HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_TYPE\_LIMITS\_BE since not all C files call them
  - drivers/bcmxcp\_usb.c, drivers/blazer\_usb.c, drivers/libhid.h, drivers/nutdrv\_atcl\_usb.c, drivers/nutdrv\_qx.c, drivers/richcomm\_usb.c, drivers/riello\_usb.c, drivers/tripplite\_usb.c, drivers/usb-common.h: drivers/usb-common.h: consolidate libusb-0.1 vs 1.0 data/-func mappings from \*usb.c files
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- drivers/nut\_libusb.h, drivers/usb-common.h: drivers/nut\_libusb.h already includes "usb-common.h" so no need to pull LibUSB headers again
- drivers/bcmxcp\_usb.c: range-check and cast args for usb\_control\_msg() ⇒ libusb\_control\_transfer() and usb\_interrupt\_read() ⇒ libusb\_interrupt\_transfer() for libusb-1.0 support
- ci\_build.sh: comment the rationale reminder for "default-all-errors" mode
- ci\_build.sh: try more options for non-verbose MAKE runs
- conf/upsmon.conf.sample.in: update suggestions and envvar list for NOTIFYCMD callouts
- m4/ax\_c\_pragmas.m4: introduce HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_UNUSED\_FUNCTION

## 2.924 2021-12-09 Jim Klimov <jim@jimklimov.com>

- tools/nut-usbinfopl: sanity check that exactly one version of WITH\_LIBUSB\_x\_y is set (defined and has value 1)
- drivers/usb-common.h: sanity check that exactly one version of WITH\_LIBUSB\_x\_y is set (defined and has value 1)
- drivers/bcmxcp\_usb.c: sanity check that exactly one version of WITH\_LIBUSB\_x\_y is set (defined and has value 1)
- tools/nut-usbinfopl: sanity check that exactly one version of WITH\_LIBUSB\_x\_y is set (defined and has value 1)
- drivers/usb-common.h: sanity check that exactly one version of WITH\_LIBUSB\_x\_y is set (defined and has value 1)
- drivers/bcmxcp\_usb.c: sanity check that exactly one version of WITH\_LIBUSB\_x\_y is set (defined and has value 1)
- configure.ac, m4/nut\_check\_libusb.m4: configure.ac \+ m4/nut\_check\_libusb.m4: rectify WITH\_LIBUSB\_x\_y definitions
- configure.ac, m4/nut\_check\_libusb.m4: configure.ac \+ m4/nut\_check\_libusb.m4: rectify WITH\_LIBUSB\_x\_y definitions
- ci\_build.sh: Refactor ./ci\_build.sh spellcheck to be more useful
- ci\_build.sh: refactor build\_to\_only\_catch\_errors\_target() out of build\_to\_only\_catch\_errors()
- ci\_build.sh, docs/developers.txt: ci\_build.sh: introduce support for CI\_SHELL\_IS\_FLAKY=true
- docs/developers.txt: when introducing ci\_build.sh, mention that NUT CI farm tells how to reproduce builds

## 2.925 2021-12-08 Mauro Guerrera <mauroguerrera@eaton.com>

- docs/man/snmp-ups.txt: Update snmp-ups docs
- docs/man/nut-scanner.txt: Update docs to list new auth and privacy encryption options

## 2.926 2021-12-08 Jim Klimov <jimklimov@gmail.com>

- docs/man/nut-scanner.txt: Update nut-scanner.txt Clarify SNMP auth/priv proto support depends on Net-SNMP lib
  - docs/man/snmp-ups.txt: Update snmp-ups.txt Clarify SNMP auth/priv proto support depends on Net-SNMP lib
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**2.927 2021-12-08 Jim Klimov <jim@jimklimov.com>**

- drivers/nut\_libusb.h: sanity check that exactly one version of WITH\_LIBUSB\_x\_y is set (defined and has value 1)
- drivers/bcmxcp\_usb.c, drivers/blazer\_usb.c, drivers/nut\_libusb.h, drivers/nutdrv\_atcl\_usb.c, drivers/nutdrv\_qx.c, drivers/rich-comm\_usb.c, drivers/riello\_usb.c, drivers/tripplite\_usb.c, drivers/usb-common.h, tools/nut-scanner/nutscan-init.c, tools/nut-scanner/scan\_usb.c, tools/nut-usbinfo.pl: Convert C code from "#ifdef WITH\_LIBUSB\_x\_y" to "#if" tests for defined value
- drivers/nut\_libusb.h: sanity check that exactly one version of WITH\_LIBUSB\_x\_y is set (defined and has value 1)
- drivers/bcmxcp\_usb.c, drivers/blazer\_usb.c, drivers/nut\_libusb.h, drivers/nutdrv\_atcl\_usb.c, drivers/nutdrv\_qx.c, drivers/rich-comm\_usb.c, drivers/riello\_usb.c, drivers/tripplite\_usb.c, drivers/usb-common.h, tools/nut-scanner/nutscan-init.c, tools/nut-scanner/scan\_usb.c, tools/nut-usbinfo.pl: Convert C code from "#ifdef WITH\_LIBUSB\_x\_y" to "#if" tests for defined value
- drivers/Makefile.am: define SHUT\_MODE=1 (with a value) so #if is predictable
- m4/nut\_check\_libusb.m4: (hidden) debug before AC\_DEFINE
- m4/nut\_check\_libusb.m4: always AC\_DEFINE the WITH\_LIBUSB\_1\_0 and WITH\_LIBUSB\_0\_1 macros with a 0 or 1 value
- drivers/Makefile.am: define SHUT\_MODE=1 (with a value) so #if is predictable
- m4/nut\_check\_libusb.m4: (hidden) debug before AC\_DEFINE
- m4/nut\_check\_libusb.m4: always AC\_DEFINE the WITH\_LIBUSB\_1\_0 and WITH\_LIBUSB\_0\_1 macros with a 0 or 1 value

**2.928 2021-12-07 Jim Klimov <jim@jimklimov.com>**

- docs/configure.txt: configure.ac et al: drop the extra --with-libusb-version and handle its goals via --with-usb=VERSION
  - configure.ac: drop duplicate NUT\_CHECK\_LIBNETSNMP
  - configure.ac: regroup some NUT\_ARG\_WITH() closer to their NUT\_CHECK\_\*( ) so help for detailed options is near
  - m4/nut\_check\_libusb.m4: refactor shell if/case to m4 (tracking down missed parentheses)
  - m4/nut\_check\_libusb.m4: port more function probes from libusb-1.0\+0.1 branch
  - ci\_build.sh, configure.ac, docs/configure.txt, m4/nut\_check\_libusb.m4: configure.ac et al: drop the extra --with-libusb-version and handle its goals via --with-usb=VERSION
  - m4/nut\_check\_libusb.m4: port comments and m4 markup from libusb-1.0\+0.1 branch
  - configure.ac, m4/nut\_check\_libusb.m4: configure.ac: move remaining libusb sanity checks into the m4/nut\_check\_libusb.m4 file
  - configure.ac: drop duplicate NUT\_CHECK\_LIBNETSNMP
  - configure.ac: regroup some NUT\_ARG\_WITH() closer to their NUT\_CHECK\_\*( ) so help for detailed options is near
  - drivers/libusb1.c: nut\_libusb\_open(): range-check and cast libusb\_control\_transfer() arg rrlen
  - drivers/libusb1.c: nut\_libusb\_open(): range-check and cast libusb\_control\_transfer() arg rrlen
  - Makefile.am: do not let (parallel) "make maintainer-clean" remove the files that cleanup recipe needs
  - ci\_build.sh: Revert "ci\_build.sh: fix bogus expression for BUILDSTODO" This reverts commit e57eec425da5c2020656fd48ec3f8bb9 and adds comments and handling why that weird construct was not bogus ;)
  - docs/ci-farm-lxc-setup.txt, docs/nut.dict: docs/ci-farm-lxc-setup.txt: reword notes for default QEMU container memory settings
  - ci\_build.sh: Add a shortcut hack to "./ci\_build.sh spellcheck" easily
  - common/Makefile.am: some "make" implems dislike DRY multi-entry definition of same target (common.c)
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- ci\_build.sh: Add a shortcut hack to `./ci_build.sh spellcheck` easily
- drivers/snmp-ups.c, tools/nut-scanner/scan\_snmp.c: drivers/snmp-ups.c \+ tools/nut-scanner/scan\_snmp.c: hide sanity checks before `generate_Ku()` into pragmas to not warn about type-limits ("comparison is always false due to limited range of data type" on some architectures)
- drivers/solis.c: make sure `nut_stdint.h` is included early and defines `size_t`

## 2.929 2021-12-06 Jim Klimov <jim@jimklimov.com>

- drivers/snmp-ups.c, tools/nut-scanner/scan\_snmp.c: drivers/snmp-ups.c \+ tools/nut-scanner/scan\_snmp.c: align (cast) arg type of `generate_Ku()` with net-snmp headers, and document the inconsistency of `size_t` vs `u_int` in the same API
- drivers/snmp-ups.c: align (cast) arg type of `malloc()/realloc()`
- drivers/snmp-ups.c: align (cast) arg type of `snmp_errstring()` vs `response→errstat` (int vs long), and document the inconsistency with net-snmp headers
- drivers/snmp-ups.c: `upsdrv_makevariable()`: fix maths with `size_t` vs int
- drivers/tripplite\_usb.c: `setvar()`: cast placing of `new_unit_id` into wire protocol (FIXME? Does that code assume CPU endianness?)
- drivers/tripplite\_usb.c: `upsdrv_initinfo()`: fix receiver of `strtol()`
- drivers/tripplite\_usb.c: whitespace fixes
- drivers/tripplite\_usb.c: `setvar()`: fix determination of outlet index number
- drivers/tripplite\_usb.c: `debug_message()`: fix len from int to `size_t`
- drivers/tripplite\_usb.c: `soft_shutdown()`: cast placing of `offdelay` into wire protocol (FIXME? Does that code assume CPU endianness?)
- drivers/tripplite\_usb.c: fix reading and printing of `offdelay` (unsigned int in this driver)
- drivers/tripplite\_usb.c: fix `hex2d()` to long as a consumer of `strtol()`
- drivers/tripplite\_usb.c: fix `toprint_str()` length to `size_t` and `toprint(x)` to char
- drivers/netxml-ups.c: fix type of "ret" for `ne_read_response_block()` and `ne_sock_read()` to `ssize_t` (as in libneon headers)
- drivers/nutdrv\_qx.c: fix `qx_command()` to return `ssize_t` like `ser_send()` at least
- drivers/nutdrv\_qx.c: range-check and cast "u\_langid\_fix" in `upsdrv_initups()`
- drivers/nutdrv\_qx.c: range-check and cast length of "cmdlen" in `phoenixtec_command()`
- drivers/nutdrv\_qx.c: range-check and cast bytes in `phoenixtec_command()`
- drivers/nutdrv\_qx.c: range-check and cast bytes in `fuji_command()`
- drivers/nutdrv\_qx.c: range-check and cast bytes in repetitive "Simple unicode → ASCII inplace conversion"
- drivers/nutdrv\_qx.c: range-check and cast int vs `size_t` in subdriver handlers (`buflen`, `ret`, `i++`)
- drivers/nutdrv\_qx.c: initialize `ret=0` before we potentially use it in loop `i++=ret` (should not happen in current code, but...)
- drivers/nutdrv\_qx.c: cast `upsdebug_hex()` logging with non-`size_t` args
- drivers/nutdrv\_qx.c: range-check and cast receivers of `strtol()`
- drivers/nutdrv\_qx.c, drivers/nutdrv\_qx.h: drivers/nutdrv\_qx.{c,h}: `qx_process()`, `item_t.answer_len`: fix lengths from int to `size_t`
- drivers/nutdrv\_qx.c: `qx_command()`: indent ifdefs for TESTING/QX\_USB/QX\_SERIAL for easier navigation

- drivers/nutdrv\_qx.c: qx\_command() complains about unused parameters (not sure why); mark with NUT\_UNUSED\_VARIABLE just in case
- drivers/nutdrv\_qx.c, drivers/nutdrv\_qx.h: drivers/nutdrv\_qx.{c,h}: fix STATUS() macro, qx\_status(), status\_lkp\_t.status\_mask field and ups\_status var to all be "unsigned int"
- drivers/nutdrv\_qx\_voltronic.c: range-check and cast receivers of strtol(); wrap a few long lines
- drivers/nutdrv\_qx\_mecer.c: fix receivers of strtol()
- drivers/nutdrv\_qx\_masterguard.c: masterguard\_test\_battery(): fix receivers of strtol() - duration
- drivers/nutdrv\_qx\_masterguard.c: masterguard\_shutdown(): fix receivers of strtol() - ondelay/offdelay
- drivers/nutdrv\_qx\_masterguard.c: masterguard\_new\_slaveaddr(): range-check and cast "masterguard\_next\_slaveaddr"
- drivers/nutdrv\_qx\_masterguard.c: fix receivers of strtol()
- drivers/nutdrv\_qx\_masterguard.c: masterguard\_output\_voltages(): fix type for sizeof() maths
- drivers/nutdrv\_qx\_masterguard.c: masterguard\_model(): fix type of min\_bp/max\_bp
- drivers/huawei-ups2000.c: instcmd(): range-check and cast for ups2000\_write\_register() and handler\_func()
- drivers/huawei-ups2000.c: ups2000\_update\_alarm(): range-check and cast all\_alarms\_len from snprintf() retval
- drivers/huawei-ups2000.c: ups2000\_update\_info(): pragma disable warnings for non-fixed format string
- drivers/huawei-ups2000.c: ups2000\_update\_info(): cast uint32\_t for reg-idx
- drivers/huawei-ups2000.c: ups2000\_read\_serial(): range-check and cast ssize\_t vs size\_t increments
- drivers/huawei-ups2000.c: ups2000\_update\_info(): cast uint8\_t calculations of reg\_id parts
- drivers/huawei-ups2000.c: ups2000\_device\_identification(): cast uint32\_t calculations of ups2000\_ident
- drivers/huawei-ups2000.c: ups2000\_device\_identification(): range-check and cast crc16 calculations
- drivers/huawei-ups2000.c: ups2000\_write\_registers(), ups2000\_read\_registers(), ups2000\_device\_identification(): initialize variables that clang-9 is not sure about Seems like a clang analyzer bug frankly: code starts with a retrying loop that would initialize these variables. But still, adding determinism into code never hurts ;)
- drivers/huawei-ups2000.c: crc16(): fix casting to uint16\_t when bit-shifting
- drivers/huawei-ups2000.c: ups2000\_alarm[] sentinel: fix uint16\_t reg from -1 to 0
- drivers/huawei-ups2000.c: ups2000\_device\_identification(): fix r from int to size\_t, to match ser\_send\_buf()
- drivers/huawei-ups2000.c: fix ups2000\_read\_serial() from int to size\_t, to match ser\_get\_buf()
- drivers/huawei-ups2000.c: mark local variables static

## 2.930 2021-12-04 Jim Klimov <jim@jimklimov.com>

- m4/ax\_c\_pragmas.m4: add HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_PEDANTIC
  - drivers/nutdrv\_qx\_blazer-common.c: fix and range-check receivers of strtol()
  - drivers/nutdrv\_qx\_bestups.c: fix receivers of strtol()
  - drivers/nutdrv\_qx\_voltronic-qs-hex.c: fix receivers of strtol()
  - drivers/solis.c: fix packet\_size from int to size\_t
  - drivers/apcsmart.c: bit-wise &= ~(()) insists it is for unsigned (int) types - vt→flags
-

- drivers/apcsmart.c: bit-wise &= ~( ) insists it is for unsigned (int) types - termios struct
  - drivers/apcsmart.c: sdcmnd\_CS: fix cshd from int to useconds\_t
  - drivers/apcsmart.c: whitespace fix
  - drivers/apcsmart.c: apc\_getcaps(): fix i, nument, entlen from int to size\_t
  - drivers/apcsmart.c: cast prtchr() args from (unsigned char) to (char)
  - drivers/apcsmart.c: fix receivers of strtol()
  - drivers/apcsmart.c: cast apc\_read\*()/apc\_write\*() from ((const) char) to (const unsigned char)
  - drivers/apcsmart.c: fix receivers of strlen() from int to ssize\_t
  - drivers/apcsmart.c, drivers/apcsmart.h: drivers/apcsmart.{c,h}: fix ups\_status and APC\_STAT\_\* from int to long (to match strtol() used)
  - drivers/apcsmart.c: fix receivers of strlen() from int to ssize\_t
  - drivers/apcsmart.c: fix apc\_read\*()/apc\_write\*() from int to ssize\_t to match select\_read() et al
  - drivers/apcsmart.c: include main.h ⇒ config.h first
  - drivers/apcsmart.c: convert\_data(): fix receivers of strtol()
  - drivers/apcsmart-old.c, drivers/apcsmart-old.h: drivers/apcsmart-old.c: fix const/unsigned/char usages
  - drivers/apcsmart-old.c: do\_capabilities(): fix i, nument, entlen from int to size\_t
  - drivers/apcsmart-old.c, drivers/apcsmart-old.h: drivers/apcsmart-old.c: fix receivers of strtol()
  - drivers/solis.h: fix packet\_size from into to size\_t
  - drivers/apcsmart-old.c: fix handling of ser\_\*() retval from int to ssize\_t
  - drivers/clone.c: fix ondelay/offdelay handling from int to long (to match strtol() used)
  - drivers/clone-outlet.c: fix handling of read()/write() retval from int to ssize\_t
  - drivers/clone.c: fix handling of read()/write() retval from int to ssize\_t
  - drivers/blazer.h, drivers/blazer\_ser.c, drivers/blazer\_usb.c: drivers/blazer.h \+ blazer\_{ser,usb}.c: blazer\_command(): fix handling of ser\_get\_buf() retval from int to ssize\_t
  - drivers/blazer.c: fix ondelay/offdelay handling from int to long (to match strtol() used)
  - drivers/blazer.c: fix receivers of strtol() - delay tmp var
  - drivers/powerp-txt.c: fix ondelay/offdelay handling from int to long (to match strtol() used)
  - drivers/victronups.c: fix receivers of strtol()
  - drivers/victronups.c: fix handling of ser\_get\_line() retval from int to ssize\_t
  - drivers/tripplite.c: fix receivers of strtol() ⇒ hex2d()
  - drivers/tripplite.c: fix handling of ser\_get\_char() retval from int to ssize\_t
  - drivers/solis.c, drivers/solis.h: drivers/solis.{c,h}: fix comm\_receive() from int to size\_t, and match ser\_get\_buf\_len() len-or-error returns
  - drivers/solis.c, drivers/solis.h: drivers/solis.{c,h}: fix byte-sized maths of str2bin() and day counts to uint8\_t
  - drivers/solis.c: include main.h ⇒ config.h first
-



- drivers/solis.c, drivers/solis.h: drivers/solis.c: save\_ups\_config(): fix casting of ConfigPack[] entries to (unsigned char) from original types
- drivers/nutdrv\_siemens\_sitop.c: fix handling of ser\_get\_line() retval from int to ssize\_t
- drivers/safenet.c: fix ondelay/offdelay handling from int to long (to match strtol() used)
- drivers/safenet.c: fix array loop iterator from int to size\_t
- drivers/safenet.c: fix handling of ser\_get\_line() retval from int to ssize\_t
- drivers/rhino.c: fix handling of ser\_get\_line() retval from int to ssize\_t
- drivers/powercom.h: fix whitespace (indentations)
- drivers/powercom.c: fix array loop iterator from int to size\_t
- drivers/powercom.c: fix handling of ser\_get\_line() retval from int to ssize\_t
- drivers/optiups.c: a few whitespace nits
- drivers/optiups.c: fix OPTISBIT\_\* handling from int to long (to match strtol() used)
- drivers/optiups.c: fix optifill() len from int to size\_t
- drivers/optiups.c: fix handling of ser\_get\_line() retval from int to ssize\_t
- drivers/oneac.c: fix handling of ser\_get\_line() retval from int to ssize\_t
- scripts/subdriver/gen-usbhid-subdriver.sh: update generated C heading comment with "TODO" and update generated code whitespace markup
- drivers/arduino-hid.c, drivers/salicro-hid.c: drivers/usb-common.{c,h} drivers/\*{usb,hid}.c: fix type of usb\_device\_id\_t vendorID/productID to uint16\_t Catch up to earlier change for recently merged USB HID drivers; specifically \*{usb,hid}.c: sentinel in a table of uint16\_t can not be -1 for: \* drivers/salicro-hid.c \* drivers/arduino-hid.c \* scripts/subdriver/gen-usbhid-subdriver.sh creating the boilerplates

## 2.931 2021-12-03 Jim Klimov <jim@jimklimov.com>

- drivers/microsol-common.c: fix setup\_poweroff\_schedule() vars from int to bool\_t to match set\_schedule\_time()
- drivers/microsol-common.c: fix get\_base\_info(), get\_updated\_info() buf sizes from unsigned int to ssize\_t (to match ser\_get\_buf\_len() len-or-error returns)
- drivers/microsol-common.c: fix comm\_receive() from int to size\_t
- drivers/microsol-common.c: save\_ups\_config(): fix casting of configuration\_packet[] entries to (unsigned char) from original types
- drivers/microsol-common.c: fix byte-sized maths of bitstring\_to\_binary() and day counts to uint8\_t
- drivers/microsol-common.c: fix (and range-check) casting for memcpy
- drivers/microsol-common.c: wrap some long comments
- drivers/microsol-common.c: include main.h ⇒ config.h first
- common/Makefile.am: limit the use of common.c symlinking from ssrcdir to builddir only to cases when not BUILDING\_IN\_TREE
- tools/nut-scanner/nutscan-init.c: comment that semaphore gets re-initialized by nut-scanner.c program and why
- tools/nut-scanner/nut-scan.h, tools/nut-scanner/nutscan-init.c: tools/nut-scanner/nutscan-init.c \+ nut-scan.h: hide "semaphore" library variable
- tools/nut-scanner/nut-scanner.c: #include "config.h" first

- tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-init.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http.c: tools/nut-scanner/\*.c: fix use of size\_t max\_threads(\_scantype) vs (unsigned int) in sem\_init() args
- tools/nut-scanner/nut-scan.h: fix declaration of nutscan\_semaphore(void)
- drivers/snmp-ups.c, m4/nut\_check\_libnetsnmp.m4, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_snmp.c: nut\_check\_libnetsnmp.c, scan\_snmp.c, snmp-ups.c: transition from NETSNMP\_DRAFT\_BLUMENTHAL\_AES\_04 (that may be not-defined so #if is invalid) to NUT\_HAVE\_LIBNETSNMP\_DRAFT\_BLUMENTHAL\_AES\_04
- ci\_build.sh: in default-all-errors mode, avoid last-loop cleanup if DO\_CLEAN\_CHECK==no
- ci\_build.sh: fix bogus expression for BUILDSTODO
- ci\_build.sh: only score \*\_clean\_check as SUCCEEDED if they were not skipped, and report a bit more

### 2.932 2021-11-30 Jim Klimov <jim@jimklimov.com>

- drivers/snmp-ups.c: load\_mib2nut(): import tracing messages and points from 42ITy/DMF fork
- drivers/snmp-ups.c: load\_mib2nut(): clarify the "trying the new match\_sysoid() method" message
- drivers/snmp-ups.c: load\_mib2nut(): fix upsdebugx() levels verbosity to make more sense
- drivers/snmp-ups.c: load\_mib2nut(): reformat some debugs, use *func*
- drivers/snmp-ups.c: load\_mib2nut(): report device name (section) and host/IP in progress and errors

### 2.933 2021-11-28 Jim Klimov <jimklimov+nut@gmail.com>

- m4/nut\_check\_libpowerman.m4: if (lib)powerman.pc is missing, but header is present, check -lpowerman directly
- m4/nut\_check\_libpowerman.m4: they deliver an empty version string, so we should not error out on that

### 2.934 2021-11-27 Jim Klimov <jimklimov+nut@gmail.com>

- m4/nut\_check\_libusb.m4: if libusb-config and libusb.pc are missing, but header is present, check -lusb directly
- m4/nut\_check\_libnetsnmp.m4: detect NET\_SNMP\_CONFIG with AC\_PATH\_PROGS and/or configure option (and handle if it is missing)
- docs/configure.txt: document --with-net-snmp-config configure option better
- docs/configure.txt: rephrase comments about --with-libs and --with-include
- docs/configure.txt, m4/nut\_check\_pkgconfig.m4: m4/nut\_check\_pkgconfig.m4 \+ docs/configure.txt: detect (dummy\_)PKG\_CONFIG with AC\_PATH\_PROGS and/or configure option (and handle if it is missing)
- m4/nut\_check\_libgd.m4: initialize empty CFLAGS LIBS LDFLAGS
- m4/nut\_check\_libgd.m4: detect GD\_LIB\_CONFIG with AC\_PATH\_PROGS and/or configure option (and handle if it is missing)
- docs/configure.txt, m4/nut\_check\_libusb.m4: m4/nut\_check\_libusb.m4 \+ docs/configure.txt: detect LIBUSB\_CONFIG with AC\_PATH\_PROGS and/or configure option (and handle if it is missing)
- m4/nut\_check\_libpowerman.m4: consider have \_PKG\_CONFIG
- m4/nut\_check\_libwrap.m4: \*.m4: AC\_LANG\_PUSH before AC\_LINK\_IFELSE and similar tests

**2.935 2021-11-27 Jim Klimov <jim@jimklimov.com>**

- m4/ax\_c\_attribute.m4, m4/nut\_check\_headers\_windows.m4, m4/nut\_check\_libnetsnmp.m4, m4/nut\_func\_getnameinfo\_argtypes.m4, m4/nut\_type\_socklen\_t.m4: \*.m4: AC\_LANG\_PUSH before AC\_COMPILE\_IFELSE and similar tests
- Jenkinsfile-dynamatrix: try to report toStringStageCountDump() in ircNotify()
- configure.ac: AC\_LANG\_PUSH before AC\_COMPILE\_IFELSE and similar tests
- clients/upsclient.c, clients/upslog.c, clients/upsmon.c, clients/upsrw.c, clients/upssched.c, clients/upsset.c, common/state.c, common/upsconf.c, docs/developers.txt, docs/nut.dict, drivers/apcsmart-old.c, drivers/apcsmart.c, drivers/apcupsd-ups.c, drivers/sbelkin.c, drivers/belkinunv.c, drivers/bestups.c, drivers/clone-outlet.c, drivers/clone.c, drivers/dstate.c, drivers/gamatronic.c, drivers/huawei-ups2000.c, drivers/main.c, drivers/masterguard.c, drivers/mge-utalk.c, drivers/mge-xml.c, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx\_bestups.c, drivers/nutdrv\_qx\_blazer-common.c, drivers/nutdrv\_qx\_voltronic-qs-hex.c, drivers/nutdrv\_qx\_voltronic-qs.c, drivers/nutdrv\_qx\_voltronic.c, drivers/oneac.c, drivers/powercom.c, drivers/powerman-pdu.c, drivers/powerp-txt.c, drivers/snmp-ups.c, drivers/triplite\_usb.c, drivers/upscode2.c, drivers/victronups.c, server/conf.c, server/netget.c, server/netlist.c, server/netset.c, server/user.c, tests/cpptest.cpp, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_snmp.c: Replace strcmp() and strcasecmp() use-cases for short fixed string args by strncmp() and strncasecmp() respectively Some compilers on some OSes complain due to implem nuances. Updated docs/developers.txt to make note for posterity.
- drivers/microdowell.c: some more pragmatic ignorance for CLAMP() macro uses (older clang-3.4 et al)

**2.936 2021-11-26 Jim Klimov <jim@jimklimov.com>**

- tools/nut-scanner/scan\_xml\_http.c: fix dummy nutscan\_scan\_xml\_http\_range() (WITHOUT\_NEON) arg type for useconds\_t usec\_timeout
- drivers/libhid.c: fix debug-printing of byte-counts as size\_t
- drivers/microdowell.c: some more pragmatic ignorance for CLAMP() macro uses
- tools/nut-scanner/scan\_nut.c: whitespace fix
- tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http.c, tools/nut-scanner/scan\_\*.c: fix debug-printing of thread accounting as size\_t

**2.937 2021-11-25 xbgmsharp <xbgmsharp@gmail.com>**

- drivers/salicro-hid.c: Rename unmapped.\* to experimental.\* data points Add untested instant commands

**2.938 2021-11-25 Jim Klimov <jimklimov@gmail.com>**

- docs/FAQ.txt: Update FAQ.txt Update rationale (reasonable use-cases) for "clone" driver

**2.939 2021-11-25 Jim Klimov <jimklimov+nut@gmail.com>**

- common/Makefile.am, configure.ac: configure.ac \+ common/Makefile.am: detect if building in-tree and differentiate the recipe involving common.c based on that
  - common/Makefile.am: let OpenBSD 6.4 make cope with common.c recipe
  - docs/config-prereqs.txt: add libusb1 for OpenBSD
  - docs/config-prereqs.txt, docs/nut.dict: docs/config-prereqs.txt: concerns about OpenBSD 6.4 freeipmi vs. "-largp"
-

**2.940 2021-11-25 Jim Klimov <jim@jimklimov.com>**

- configure.ac: typo fix for ABS\_TOP\_\* determination
- NEWS, docs/nut.dict: NEWS: added new salicru-hid subdriver in usbhid-ups for NUT v2.7.5

**2.941 2021-11-25 Arnaud Quette <ArnaudQuette@eaton.com>**

- drivers/powerware-mib.c: Eaton SNMP: also publish ups.load for 3phase Though there is output.Lx.power.percent, for 3phase, it's desirable to also have the standard ups.load

**2.942 2021-11-24 xbgmsharp <xbgmsharp@gmail.com>**

- drivers/salicru-hid.c: Update mapping

**2.943 2021-11-23 Jim Klimov <jim@jimklimov.com>**

- docs/FAQ.txt: extend Q&A on "NUT proxying" with mention of "clone" driver

**2.944 2021-11-22 xbgmsharp <xbgmsharp@gmail.com>**

- data/driver.list.in, drivers/Makefile.am, drivers/salicru-hid.c, drivers/salicru-hid.h, drivers/usbhid-ups.c, scripts/upower/95-upower-hid.rules: Initial release for Salicru driver
- data/driver.list.in, drivers/Makefile.am, drivers/salicru-hid.c, drivers/salicru-hid.h, drivers/usbhid-ups.c, scripts/upower/95-upower-hid.rules: Initial release for Salicru driver

**2.945 2021-11-22 Yifeng Li <tomli@tomli.me>**

- drivers/huawei-ups2000.c: huawei-ups2000.c: rework logic for "load.on". Currently the driver prevents the user from executing "load.on" when the UPS is already on, and reports a STAT\_INSCMD\_FAILED with error logs. We need to do this if the UPS is in bypass mode, because the UPS would otherwise enter normal mode - "load.on" is not supposed to do that. On the other hand, executing "load.on" when the UPS is already in "normal-mode on" has no effect, it's still a legal command and should not be rejected arbitrarily, which can potentially confuse downstream applications and users. It also contains two misleading typos in the error logs: (1) it incorrectly suggests "bypass.off" instead of "bypass.stop", and (2) reports "failed: reason unknown." when the reason is simply an already-on UPS. This commit allows "load.on" to execute when it's in normal mode and already on, and changes the log messages from errors to warnings. Typos in the log messages are also fixed. The "load.on" command is only rejected in bypass mode, with error logs. Finally, the logic for the off test is reworked to improve readability. The original code checks whether the UPS is on by testing the negative "not OFF" condition, which is not easy to understand - the reader must have intimate knowledge on the code to know its correctness. Namely, When the UPS power status is updated, 1 of the 5 mutually exclusive flags, OL, OB, OL ECO, BYPASS, or OFF is always set, thus the absence of the OFF flag always reliably indicates an ON status. This commits converts the single negative "not OFF" test to three positive tests for "OL", "OB" and "OFF", with additional comments added on reachable and unreachable conditions. Thus, previous uncertainty is eliminated.
- docs/nut.dict: add model name "KRTS".
- docs/man/huawei-ups2000.txt: huawei-ups2000.txt: update tested models and user report suggestions.
- docs/man/huawei-ups2000.txt: huawei-ups2000.txt: minor typo fixes

**2.946 2021-11-22 Jim Klimov <jimklimov@gmail.com>**

- docs/FAQ.txt: Update docs/FAQ.txt Add example of dummy-ups (relay mode) configuration section Co-authored-by: Helmut K. C. Tessarek <tessarek@evermeet.cx>

**2.947 2021-11-22 Jim Klimov <jim@jimklimov.com>**

- drivers/snmp-ups.h: update mask for SU\_TYPE\_DAISSY() and comments for it and SU\_DAISSY
- docs/FAQ.txt: update for interactions via github (issues, PRs, ...)
- docs/FAQ.txt: update for use-cases of dummy-ups in relay mode

**2.948 2021-11-22 Arnaud Quette <ArnaudQuette@eaton.com>**

- drivers/mge-xml.c: Eaton XML/PDC: add External Battery Module count
- drivers/mge-xml.c: Eaton XML/PDC: add External Battery Module count

**2.949 2021-11-20 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/config-prereqs.txt, docs/nut.dict: docs/config-prereqs.txt: add a chapter on OpenBSD build agent setup
- configure.ac: require at least autoconf-2.61 (macros are used that are missing in 2.60 and before)
- autogen.sh: comment that libtool is also needed
- autogen.sh: comment about envs that want AUTOCONF\_VERSION or AUTOMAKE\_VERSION
- autogen.sh, configure.ac, scripts/augeas/.gitignore, scripts/devd/Makefile.am, scripts/udev/.gitignore, scripts/udev/Makefile.am: autogen.sh \+ configure.ac: try to support building on systems without Python or Perl

**2.950 2021-11-20 Jim Klimov <jim@jimklimov.com>**

- ci\_build.sh: Make end of log useful for spellcheck failure handling

**2.951 2021-11-18 Jim Klimov <jim@jimklimov.com>**

- drivers/snmp-ups.c, drivers/snmp-ups.h: drivers/snmp-ups.{c,h}: typedef snmp\_info\_t::flags and define its PRI\_SU\_FLAGS format to ease type changes later Also adds a "default:" to case for template flag handling (from FTY fork)

**2.952 2021-11-17 Jim Klimov <jim@jimklimov.com>**

- drivers/snmp-ups.c: su\_find\_strval(): mark NUT\_UNUSED\_VARIABLE(oid2info) when not WITH\_SNMP\_LKP\_FUN
- drivers/eaton-pdu-marlin-helpers.c: include config.h first

**2.953 2021-11-16 Jim Klimov <jim@jimklimov.com>**

- drivers/snmp-ups-helpers.c: reshuffle includes
  - drivers/snmp-ups.c: include main.h ⇒ common.h ⇒ config.h first
  - drivers/snmp-ups.c: fix strncmp() limits for "v1" and "v3" checks (copy-pasting typo)
  - drivers/snmp-ups.c: mention in help that SNMP version may be "v3"
  - drivers/libusb1.c: fix devcount and devnum from ssize\_t to size\_t
-

**2.954 2021-11-15 Jim Klimov <jim@jimklimov.com>**

- m4/nut\_check\_libusb.m4: Move "additional USB-related checks" from configure.ac to m4/nut\_check\_libusb.m4
  - drivers/nutdrv\_qx\_masterguard.c: printf() assumes floating-point numbers are doubles, satisfy its warnings
  - drivers/libusb1.c: drop extra "int i" definition
  - ci\_build.sh: NUT\_USB\_VARIANT=<value> ⇒ --with-usb=libusb<value> [libusb-1.0\+0.1 branch]
  - ci\_build.sh: NUT\_USB\_VARIANT=no ⇒ --without-usb explicitly
  - ci\_build.sh: default-all-errors: report BUILDSTODO\_INITIAL at the end of log, and if non-zero BUILDSTODO remained unaccounted
  - ci\_build.sh: report which SSL/USB variants will be looped
  - drivers/phoenixcontact\_modbus.c: use a longer global var name for modbus\_ctx (nee ctx)
  - drivers/bcmxcp\_ser.c, drivers/bcmxcp\_ser.h, tools/nut-scanner/scan\_eaton\_serial.c: drivers/bcmxcp\_ser.{c,h} \+ tools/nut-scanner/scan\_eaton\_serial.c: use longer global var name (AUT ⇒ BCMXCP\_AUTHCMD)
  - drivers/bestfortress.c: comment an analyzer-check complaint
  - drivers/bcmxcp\_usb.c: avoid useless comparison (warning)
  - drivers/nutdrv\_qx.c: only define "Compatibility layer between libusb 0.1 and 1.0" if we build with QX\_USB at all (no required headers are in context otherwise)
  - ci\_build.sh: BUILD\_TYPE="default-all-errors": ensure BUILDSTODO counts for SSL\+USB are planned same as executed - and handle explicit NUT\_USB\_VARIANTS=no
  - ci\_build.sh: BUILD\_TYPE="default-all-errors": ensure BUILDSTODO counts for SSL\+USB are planned same as executed
  - ci\_build.sh: BUILD\_TYPE="default-all-errors": ensure BUILDSTODO counts are decremented when configuration failed
  - ci\_build.sh: BUILD\_TYPE="default-all-errors": between configure and build, report the Configured NUT\_USB\_VARIANT
  - ci\_build.sh: BUILD\_TYPE="default-all-errors": between configure and build, report the Configured NUT\_SSL\_VARIANT
  - ci\_build.sh: BUILD\_TYPE="default-all-errors": support looping over NUT\_USB\_VARIANTS as well
  - drivers/libhid.c: HIDDumpTree(): mark that arg "hd" is not used in SHUT\_MODE
  - m4/nut\_check\_libusb.m4: the "additional USB-related checks" should now manipulate "LIBS" not "LIBUSB\_LIBS"
  - m4/nut\_check\_libusb.m4: comment on "additional USB-related checks"
  - m4/nut\_check\_libusb.m4: Move "additional USB-related checks" from configure.ac to m4/nut\_check\_libusb.m4
  - drivers/nutdrv\_qx.c: [libusb-1.0] Realign buffer casting to (usb\_ctrl\_char) after merge from master
  - tools/nut-scanner/scan\_usb.c: fix merge conflict [libusb-1.0\+0.1]
  - m4/nut\_check\_libusb.m4: complete the merge from master to libusb-1.0\+0.1
  - ci\_build.sh: NUT\_USB\_VARIANT=no ⇒ --without-usb explicitly
  - drivers/bcmxcp\_usb.c: fix definition of curDevice (libusb-1.0)
  - ci\_build.sh: default-all-errors: report BUILDSTODO\_INITIAL at the end of log, and if non-zero BUILDSTODO remained unaccounted
  - ci\_build.sh: default-all-errors: report BUILDSTODO\_INITIAL at the end of log, and if non-zero BUILDSTODO remained unaccounted
  - ci\_build.sh: report which SSL/USB variants will be looped
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- ci\_build.sh: BUILD\_TYPE="default-all-errors": between configure and build, report the Configured NUT\_SSL\_VARIANT
  - ci\_build.sh: BUILD\_TYPE="default-all-errors": ensure BUILDSTODO counts are decremented when configuration failed
  - drivers/bcmxcp\_usb.c: avoid useless comparison (warning)
  - drivers/bestfortress.c: comment an analyzer-check complaint
  - drivers/bcmxcp\_ser.c, drivers/bcmxcp\_ser.h, tools/nut-scanner/scan\_eaton\_serial.c: drivers/bcmxcp\_ser.{c,h} \+ tools/nut-scanner/sca use longer global var name (AUT  $\Rightarrow$  BCMXCP\_AUTHCMD)
  - drivers/phoenixcontact\_modbus.c: use a longer global var name for modbus\_ctx (nee ctx)
  - drivers/phoenixcontact\_modbus.c: use a longer global var name for modbus\_ctx (nee ctx)
  - drivers/bcmxcp\_ser.c, drivers/bcmxcp\_ser.h, tools/nut-scanner/scan\_eaton\_serial.c: drivers/bcmxcp\_ser.{c,h} \+ tools/nut-scanner/sca use longer global var name (AUT  $\Rightarrow$  BCMXCP\_AUTHCMD)
  - drivers/bestfortress.c: comment an analyzer-check complaint
  - drivers/bcmxcp\_usb.c: avoid useless comparison (warning)
  - drivers/nutdrv\_qx.c: only define "Compatibility layer between libusb 0.1 and 1.0" if we build with QX\_USB at all (no required headers are in context otherwise)
  - configure.ac: neuter "nut\_usb\_lib" if building --without-usb
  - ci\_build.sh: BUILD\_TYPE="default-all-errors": ensure BUILDSTODO counts for SSL\+USB are planned same as executed - and handle explicit NUT\_USB\_VARIANTS=no
  - ci\_build.sh: BUILD\_TYPE="default-all-errors": ensure BUILDSTODO counts for SSL\+USB are planned same as executed
  - ci\_build.sh: BUILD\_TYPE="default-all-errors": ensure BUILDSTODO counts are decremented when configuration failed
  - ci\_build.sh: BUILD\_TYPE="default-all-errors": between configure and build, report the Configured NUT\_USB\_VARIANT
  - ci\_build.sh: BUILD\_TYPE="default-all-errors": between configure and build, report the Configured NUT\_SSL\_VARIANT
  - ci\_build.sh: BUILD\_TYPE="default-all-errors": support looping over NUT\_USB\_VARIANTS as well
  - m4/nut\_check\_libusb.m4: report a NOTICE if libusb-1.0 support was detected, but another was chosen
  - drivers/libhid.c: HIDDumpTree(): mark that arg "hd" is not used in SHUT\_MODE
  - m4/nut\_check\_libusb.m4: the "additional USB-related checks" should now manipulate "LIBS" not "LIBUSB\_LIBS"
  - m4/nut\_check\_libusb.m4: comment on "additional USB-related checks"
  - configure.ac, m4/nut\_check\_libusb.m4: Move "additional USB-related checks" from configure.ac to m4/nut\_check\_libusb.m4
  - configure.ac, docs/configure.txt, m4/nut\_check\_libusb.m4: m4/nut\_check\_libusb.m4 et al: add support for --with-libusb-version=(auto|0.1|1.0)
  - drivers/bcmxcp\_usb.c: restore "ret" lost in merging
  - drivers/riello\_usb.c: properly export variables shared between driver subtypes (reapply to libusb-1.0 branch)
  - drivers/nutdrv\_qx.c: add a bit more of "Compatibility layer between libusb 0.1 and 1.0"
  - drivers/nutdrv\_atcl\_usb.c, drivers/nutdrv\_qx.c, drivers/richcomm\_usb.c: [libusb-1.0] Realign use of nut\_usb\_strerror() after merge from master
  - drivers/libusb1.c, drivers/nutdrv\_qx.c: [libusb-1.0] Realign buffer casting to (usb\_ctrl\_char) after merge from master
-



**2.955 2021-11-15 François-Régis Degott <francoisregisdegott@eaton.com>**

- drivers/eaton-ats16-nm2-mib.c: eaton-ats16-nm2-mib.c: fix mul coef. for ambient.temperature and humidity (#1173) \* eaton-ats16-nm2-mib.c: fix mul coef. for ambient.temperature and ambient.humidity \* Update eaton-ats16-nm2-mib.c Co-authored-by: Arnaud Quette <arnaud.quette@gmail.com>

**2.956 2021-11-15 Arnaud Quette <ArnaudQuette@eaton.com>**

- drivers/eaton-ats16-nm2-mib.c: Eaton: add support for EMP002 on ATS16 NM2 with SNMP This support is identical to what is in Eaton Marlin and Powerware MIBs. Future improvements should consider putting these bits in a common eaton-sensor-mib file, to avoid multiple definition of the same MIB structure! Imported from DMF branch (with reductions for main trunk) from commit 40c883f42aede519fe716a6d26e7dff567996d75
- drivers/eaton-pdu-marlin-mib.c, drivers/powerware-mib.c: Fix regression on Eaton EMP002 temperature reading (SNMP) Following the recent addition of the "String reformatting function" (su\_find\_strval()), a regression appeared on a corner case: when flagging a data with ST\_FLAG\_STRING, while the SNMP OID is an int, and when there is a fun\_vp2s() conversion function, a double conversion is applied, resulting in no value published. This was limited to one data (temperature.unit)

**2.957 2021-11-13 Jim Klimov <jimklimov+nut@gmail.com>**

- into pragmas
- m4/ax\_c\_pragmas.m4: detect general "-Warray-bounds" support
- m4/ax\_c\_pragmas.m4: detect general "-Wtautological-compare"
- m4/ax\_c\_pragmas.m4: detect "pragma clang diagnostic push/pop" support (needed with older clang versions not on par with GCC)
- drivers/snmp-ups-helpers.c: include "config.h" before any system headers (such as time.h indirectly)
- configure.ac: be sure to detect "time.h"
- ci\_build.sh: support a common DO\_CLEAN\_CHECK=no

**2.958 2021-11-13 Jim Klimov <jim@jimklimov.com>**

- drivers/snmp-ups.c: report if an snmp\_info[] entry flag was not defined (is 0)
- drivers/snmp-ups.h: redefine bit-flags macros so they do not overlap (and some helper-masking macros) [follow up on issue from [PR #1177](#)]
- drivers/snmp-ups-helpers.c: include a header, avoid a warning
- UPGRADING, docs/nut.dict: NEWS: updated build against various generations of Net-SNMP for NUT v2.7.5
- docs/configure.txt, m4/nut\_check\_libnetsnmp.m4: m4/nut\_check\_libnetsnmp.m4: allow --with-netsnmp-config(=yes) to mean prefer\_NET\_SNMP\_CONFIG=true
- NEWS: updated build against various generations of FreeIPMI for NUT v2.7.5
- drivers/snmp-ups.c: replace strcmp("short string") with strncmp() (clang-3.4 warns about array out of bounds)
- drivers/bcmxcp\_ser.c: resolve a "tautological compare" when building on older agents
- drivers/nut-ipmi.h, drivers/nut-ipmipsu.c, drivers/nut-libfreeipmi.c: drivers/nut-libfreeipmi.c nut-ipmipsu.c nut-ipmi.h: adjust input\_voltage\_range\_t (args of ipmi\_fru\_multirecord\_power\_supply\_information() vs. ipmi\_fru\_parse\_multirecord\_power\_supply\_in in different FreeIPMI releases) [[issue #1175](#)]
- drivers/Makefile.am: disable quick-hack of nut\_ipmipsu\_CFLAGS\+="-Wno-pointer-sign" [[issue #1175](#)]

- m4/nut\_check\_libusb.m4: consider have\_PKG\_CONFIG
- m4/nut\_check\_libopenssl.m4: consider have\_PKG\_CONFIG
- m4/nut\_check\_libnss.m4: consider have\_PKG\_CONFIG
- m4/nut\_check\_libnetsnmp.m4: consider have\_PKG\_CONFIG
- m4/nut\_check\_libneon.m4: consider have\_PKG\_CONFIG
- m4/nut\_check\_libmodbus.m4: consider have\_PKG\_CONFIG
- m4/nut\_check\_libgd.m4: consider have\_PKG\_CONFIG
- m4/nut\_check\_libfreeipmi.m4: consider have\_PKG\_CONFIG
- m4/nut\_check\_libavahi.m4: consider have\_PKG\_CONFIG
- m4/nut\_check\_pkgconfig.m4: separate detection of support for have\_PKG\_CONFIG vs have\_PKG\_CONFIG\_MACROS
- configure.ac: call PKG\_CONFIG for systemd settings query only if we have\_PKG\_CONFIG, and die if "yes" was required but query is not possible
- m4/nut\_check\_pkgconfig.m4: extend to consider PKG\_CONFIG possibly detected by autoconf
- configure.ac, m4/nut\_check\_pkgconfig.m4: configure.ac: evict NUT\_CHECK\_PKGCONFIG into m4/nut\_check\_pkgconfig.m4
- clients/upsmon.c, drivers/mge-utalk.c, drivers/snmp-ups.c, tools/nut-scanner/scan\_snmp.c: clients/upsmon.c tools/nut-scanner/scan\_snmp.c drivers/snmp-ups.c mge-utalk.c: avoid strcmp("") as the implementation may be invalid (reaches out of one-element array for "")
- m4/nut\_check\_libnetsnmp.m4: whitespace fix (indent if-clause content)
- ci\_build.sh: update guessing SYS\_PKG\_CONFIG\_PATH for **openindiana|omnios|solaris|illumos|sunos**
- ci\_build.sh: for optional\_maintainer\_clean\_check(), ignore ".ci\*.log\*" files if present

## 2.959 2021-11-13 Dan Benton <[dan@dogbody.com](mailto:dan@dogbody.com)>

- data/driver.list.in: Add CyberPower RMCARD205 which is supported

## 2.960 2021-11-12 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>

- m4/nut\_check\_libnetsnmp.m4: support (and prefer) pkg-config info to net-snmp-config script(s)
  - Jenkinsfile-dynamatrix: separate "distcheck-valgrind" from "default-nodoc", to filter away "NUT\_BUILD\_CAPS=valgrind=no" agents
  - ci\_build.sh: report which PWD failed a "git status" query
  - ci\_build.sh: report if ".git" disappeared during \*clean check [[issue #1167](#)]
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**2.961 2021-11-11 Jim Klimov <jim@jimklimov.com>**

- drivers/snmp-ups.c: avoid stringop-truncation warning
- drivers/snmp-ups.h: fix remaining SU\_\* flag bits to (unsigned long), to match snmp\_info\_t→flags type
- drivers/snmp-ups.h: comment SU\_\* bit usage by bit-shifting macros
- drivers/snmp-ups.h: wrap long comments, and detail where flag-field bits come from
- drivers/snmp-ups.h: comment typical use of SU\_TYPE(t) macro
- drivers/snmp-ups.h: fix SU\_TYPE\_DAISSY(t) macro (had no arg)
- drivers/snmp-ups.h: whitespace fixes
- drivers/snmp-ups.h: comment SU\_STATUS\_NUM\_ELEM as possibly obsolete
- tools/nut-scanner/Makefile.am: rearrange lines to better match with 42ITy fork
- NEWS, docs/nut.dict: NEWS: improved SNMPv3 Auth/Priv algo support, and nut-scanner threadcount, for NUT v2.7.5

**2.962 2021-11-10 Jim Klimov <jim@jimklimov.com>**

- drivers/Makefile.am: hotfix header (in)compatibility of different IPMI versions
- drivers/Makefile.am: hotfix header (in)compatibility of different IPMI versions
- drivers/Makefile.am: hotfix header (in)compatibility of different IPMI versions
- drivers/nutdrv\_qx.c: hunno\_step is only used with QX\_USB
- drivers/bcmxcp\_usb.c, drivers/libusb.h, drivers/nutdrv\_atcl\_usb.c, drivers/nutdrv\_qx.c, drivers/richcomm\_usb.c, drivers/trip-lite\_usb.c: drivers/**usb**: align whitespace changes with libusb-1.0 branch
- drivers/Makefile.am: use LIBUSB\_IMPL macro to align with libusb-1.0 branch
- drivers/libusb.c: whitespace fixes and message fixes to align with libusb-1.0 branch
- drivers/libusb.c, drivers/libusb.h, drivers/powervar-hid.c, drivers/usbhid-ups.c: drivers/libusb.{c,h} \+ powervar-hid.c usbhid-ups.c: whitespace fixes after [PR #1044](#)
- docs/config-prereqs.txt: mention further I2C-related packages in Debian/Ubuntu distros
- ci\_build.sh: in "default-all-errors" mode, report the start of build variant and how many remain
- Makefile.am, clients/Makefile.am, common/Makefile.am, conf/Makefile.am, data/Makefile.am, data/html/Makefile.am, docs/Makefile.am, docs/cables/Makefile.am, docs/man/Makefile.am, drivers/Makefile.am, include/Makefile.am, lib/Makefile.am, scripts/Makefile.am, scripts/Solaris/Makefile.am, scripts/augeas/Makefile.am, scripts/devd/Makefile.am, scripts/hotplug/Makefile.am, scripts/python/Makefile.am, scripts/systemd/Makefile.am, scripts/udev/Makefile.am, scripts/ufw/Makefile.am, scripts/upsdrvsvctl/Makefile.am, server/Makefile.am, tests/Makefile.am, tools/Makefile.am, tools/nut-scanner/Makefile.am: \*/Makefile.am: ensure that make maintainer-clean also removes .dirstamp files
- .gitignore: remove a redundancy
- ci\_build.sh: in "default-all-errors" mode, ignore strange exit-code from expr - if the maths result was "0"
- ci\_build.sh: in "default-all-errors" mode, ignore strange exit-code from expr
- ci\_build.sh: in "default-all-errors" mode, do not distclean before build (this just spends time to generate the Makefile to kill it)
- ci\_build.sh: in "default-all-errors" mode, report "SUCCEEDED build(s)" after final optional\_maintainer\_clean\_check() if that is called
- ci\_build.sh: dumb down can\_clean\_check() to pass "set -e" shells

- ci\_build.sh: optional \*\_clean\_check() quickly skip if there is no Makefile
- ci\_build.sh: in "default-all-errors" mode, count expected/remaining BUILDSTODO and call optional\_maintainer\_clean\_check() for the last iteration and optional\_dist\_clean\_check() for others
- ci\_build.sh: introduce can\_clean\_check() to not fail when we have nothing to test against

### 2.963 2021-11-09 Jim Klimov <jimklimov+nut@gmail.com>

- Makefile.am: first-shot "git-realclean-check" and targets to print \*CLEANFILES lists
- ci\_build.sh: introduce optional\_dist\_clean\_check() to use e.g. in "default-all-errors" case
- ci\_build.sh: in loop for "default-all-errors", report "build" successes as such
- ci\_build.sh: skip optional\_maintainer\_clean\_check() if there is no .git [issue #1167]
- configure.ac: limit the impact of linux\_i2c absent libs when "auto" mode was requested
- ci\_build.sh: start default build from a clean slate, and do not REQUIRE to be able to build everything (do auto-detect)
- tools/nut-scanner/Makefile.am, tests/Makefile.am: do not refer to LINKED\_SOURCE\_FILES with extra paths

### 2.964 2021-11-09 Jim Klimov <jim@jimklimov.com>

- drivers/snmp-ups.c: consider SNMPv3 Auth/Priv algos detected by configure script when reporting the usage (via addvar() help messages) [issue #1169]
- tools/nut-scanner/nut-scanner.c: consider SNMPv3 Auth/Priv algos detected by configure script when reporting the usage [issue #1169]
- tools/nut-scanner/scan\_ipmi.c: comment the comment
- tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http.c: tools/nut-scanner/scan\_xml\_http.c \+ scan\_snmp.c + scan\_nut.c: ifdef the references to max\_threads\_scantype
- docs/ci-farm-lxc-setup.txt, docs/nut.dict: docs/ci-farm-lxc-setup.txt: note about PTY definitions
- docs/config-prereqs.txt: say a bit more about OSES with containers
- docs/config-prereqs.txt: say a bit more about "General call to Test" and mention "ci\_build.sh"
- docs/config-prereqs.txt, docs/nut.dict: docs/config-prereqs.txt: revise pkgs available in Debian-like operating systems

### 2.965 2021-11-08 Jim Klimov <jimklimov+nut@gmail.com>

- configure.ac: for CppUnit, also sanity-check CPPUNIT\_ASSERT\_MESSAGE()

### 2.966 2021-11-08 Jim Klimov <jim@jimklimov.com>

- drivers/snmp-ups.c: use detected NUT\_HAVE\_LIBNETSNMP\_usm\* support to define and use actual Priv or Auth types
  - tools/nut-scanner/scan\_snmp.c: use detected NUT\_HAVE\_LIBNETSNMP\_usm\* support to define and use actual Priv or Auth types
  - m4/nut\_check\_libnetsnmp.m4: detect support of usmAES128PrivProtocol in Net-SNMP we build against
  - m4/nut\_check\_libnetsnmp.m4: detect support of (NETSNMP\_DRAFT\_BLUMENTHAL\_AES\_04) usmAES192PrivProtocol usmAES256PrivProtocol in Net-SNMP we build against
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- m4/nut\_check\_libnetsnmp.m4: detect support of usmDESPrivProtocol usmHMACMD5AuthProtocol usmHMACSHA1AuthProtocol in Net-SNMP we build against
- m4/nut\_check\_libnetsnmp.m4: detect support of usmHMAC256SHA384AuthProtocol usmHMAC384SHA512AuthProtocol usmHMAC192SHA256AuthProtocol in Net-SNMP we build against
- tools/nut-scanner/scan\_snmp.c: ifdef all references to NETSNMP\_DRAFT\_BLUMENTHAL\_AES\_04 related code
- tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-init.c: tools/nut-scanner/. . . : move init/destroy of threadcount\_mutex from nut-scanner.c to nutscan-init.c
- tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http, tools/nut-scanner/scan\_eaton\_serial.c \+ scan\_nut.c + scan\_snmp.c  
scan\_xml\_http.c: release global semaphores in final protocol-scanner tread reaping
- tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http, tools/nut-scanner/scan\_eaton\_serial.c \+ scan\_nut.c + scan\_snmp.c  
scan\_xml\_http.c: report if we are waiting for semaphored threads to complete
- drivers/mge-hid.c: actively check and warn if we truncated the string
- drivers/gamatronic.c: actively check and warn if we truncated the string
- docs/nut.dict: update for recent NEWS
- drivers/nutdrv\_qx\_masterguard.c: safely limit a strncpy() call
- drivers/oneac.c: shield a potentially truncating snprintf() into a small buffer
- m4/ax\_c\_pragmas.m4: introduce HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_STRINGOP\_TRUNCATION
- drivers/mge-hid.c: shield a potentially truncating snprintf() into a small buffer

## 2.967 2021-11-07 Jim Klimov <jimklimov@gmail.com>

- drivers/snmp-ups.c: Update snmp-ups.c Fix use of char su\_scratch\_buf[255] (original static array moved to another file in master branch), and bump DRIVER\_VERSION
- drivers/snmp-ups.c: Update snmp-ups.c Use the common (and sufficiently large for any runaway numeric madness) su\_scratch\_buf instead of a local char[6] buffer.
- drivers/snmp-ups.c: Update snmp-ups.c A few small whitespace fixes
- docs/man/huawei-ups2000.txt: Update huawei-ups2000.txt Made the configure example a bit friendlier for copy-pasting.

## 2.968 2021-11-07 Jim Klimov <jimklimov+nut@gmail.com>

- clients/Makefile.am: depend on "dummy" recipe to re-evaluate out-of-dir libs (so development iterations in them are reflected in rebuilds)
  - drivers/Makefile.am: depend on "dummy" recipe to re-evaluate out-of-dir libs (so development iterations in them are reflected in rebuilds)
  - server/Makefile.am: depend on "dummy" recipe to re-evaluate out-of-dir libs (so development iterations in them are reflected in rebuilds)
  - tools/nut-scanner/Makefile.am: depend on "dummy" recipe to re-evaluate out-of-dir libs (so development iterations in them are reflected in rebuilds)
  - tests/Makefile.am: depend on "dummy" recipe to re-evaluate out-of-dir libs (so development iterations in them are reflected in rebuilds)
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- tests/Makefile.am: drop obsoleted comment
- tests/nutclienttest.cpp: add test\_strarr\_alloc() This may seem trivial, but there are suspicions this allocation does not always work (e.g. NUT [issue #1126](#))
- clients/nutclient.cpp: safety check in strarr\_alloc(): returned pointer should be not null
- clients/nutclient.h: tests/nutclienttest.h: whitespace fixes (indent chars)
- tests/nutclienttest.cpp: whitespace fixes (wrap long lines for maintainability)

## 2.969 2021-11-07 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>

- drivers/gamatronic.c: shield a potentially truncating snprintf() into a small buffer
- drivers/bcmxcp.c: shield a potentially dangerous snprintf() into a small buffer as tested-safe
- clients/upscmd.c: shield a potentially dangerous snprintf() into a small buffer as tested-safe
- clients/upsrw.c: shield a potentially dangerous snprintf() into a small buffer as tested-safe
- m4/ax\_c\_pragmas.m4: add HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_FORMAT\_TRUNCATION
- drivers/snmp-ups.c: load\_mib2nut(): do not report "Unknown mibs value" just if a device did not match the mapping [NUT [issue #1141](#)]
- drivers/snmp-ups.c: refactor load\_mib2nut() to not strcmp(mib, "auto") many times
- NEWS: added snmp-ups support for ondelay/offdelay for NUT-2.7.5
- drivers/arduino-hid.c: normalize whitespace for NUT codebase
- drivers/arduino-hid.c, drivers/arduino-hid.h: drivers/arduino-hid.{c,h}: update © to arduino-hid support author
- NEWS: added usbhid-ups new subdriver arduino-hid support for NUT-2.7.5
- NEWS: added USB HID support on interface number greater than 0 for NUT-2.7.5
- NEWS: added huawei-ups2000 support for NUT-2.7.5

## 2.970 2021-11-06 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>

- tests/.gitignore, tools/nut-scanner/.gitignore: GitIgnore LINKED\_SOURCES (follow-up to [PR #1159](#))
  - .gitignore: GitIgnore .dirstamp in build trees
  - Makefile.am: move removal of dist tarballs and build packages from "distclean" to "maintainer-clean"
  - tools/nut-scanner/Makefile.am: mark use of LINKED\_SOURCE\_FILES as "nodist"
  - tests/Makefile.am: mark use of LINKED\_SOURCE\_FILES as "nodist"
  - Makefile.am: add a "make realclean" as alias to maintainer-clean
  - Makefile.am: typo fix MAINTAINERCLEAN\_FILES ⇒ MAINTAINERCLEANFILES
  - ci\_build.sh: there is no default "make realclean" implem in autotools, fall back to "maintainer-clean" support for wiping the workspace
-

- Makefile.am, clients/Makefile.am, common/Makefile.am, conf/Makefile.am, data/Makefile.am, data/html/Makefile.am, docs/Makefile.am, docs/cables/Makefile.am, docs/man/Makefile.am, drivers/Makefile.am, include/Makefile.am, lib/Makefile.am, scripts/Makefile.am, scripts/Solaris/Makefile.am, scripts/augeas/Makefile.am, scripts/devd/Makefile.am, scripts/hotplug/Makefile.am, scripts/python/Makefile.am, scripts/systemd/Makefile.am, scripts/udev/Makefile.am, scripts/ufw/Makefile.am, scripts/upsdrvsvccctl/Makefile.am, server/Makefile.am, tests/Makefile.am, tools/Makefile.am, tools/nut-scanner/Makefile.am: \*/Makefile.am: there is no default "make realclean" implem in autotools, fall back to "maintainer-clean" support for wiping the workspace
- Makefile.am, clients/Makefile.am, common/Makefile.am, conf/Makefile.am, data/Makefile.am, data/html/Makefile.am, docs/Makefile.am, docs/cables/Makefile.am, docs/man/Makefile.am, drivers/Makefile.am, include/Makefile.am, lib/Makefile.am, scripts/Makefile.am, scripts/Solaris/Makefile.am, scripts/augeas/Makefile.am, scripts/devd/Makefile.am, scripts/hotplug/Makefile.am, scripts/python/Makefile.am, scripts/systemd/Makefile.am, scripts/udev/Makefile.am, scripts/ufw/Makefile.am, scripts/upsdrvsvccctl/Makefile.am, server/Makefile.am, tests/Makefile.am, tools/Makefile.am, tools/nut-scanner/Makefile.am: \*/Makefile.am: reshuffle what we remove as part of "make distclean" vs. "make realclean" (can be remade only by autogen.sh)
- Makefile.am: do not "distclean" away some more parts of "configure" script ecosystem (leave that to "realclean")
- tools/nut-scanner/Makefile.am: restore use of \$(builddir) for LINKED\_SOURCE\_FILES
- tests/Makefile.am: restore use of \$(builddir) for LINKED\_SOURCE\_FILES
- ci\_build.sh: call optional\_realclean\_check() after more build variants
- tools/Makefile.am: distclean the helper scripts that can be re-made
- ci\_build.sh: change the cleanliness check from "distcheck" to "realcheck" and factor into a method
- Makefile.am: regenerate the helper needed for ChangeLog if cleaned away
- Makefile.am: delete the configure script and its components not in a "make distclean" but in "make realclean"

## 2.971 2021-11-05 Jim Klimov <jim@jimklimov.com>

- tools/nut-scanner/Makefile.am: use BUILT\_SOURCES=LINKED\_SOURCE\_FILES to avoid dist-ing temporary symlinks as files
- tests/Makefile.am: use BUILT\_SOURCES=LINKED\_SOURCE\_FILES to avoid dist-ing temporary symlinks as files
- ci\_build.sh: only call dpkg if present
- ci\_build.sh: configure\_nut(): call ./autogen.sh before CONFIGURE\_SCRIPT if there is no configure script
- tools/nut-scanner/Makefile.am: revise the magic of LINKED\_SOURCE\_FILES for distcheck
- tests/Makefile.am: revise the magic of LINKED\_SOURCE\_FILES for distcheck
- ci\_build.sh: add a DO\_DISTCHECK\_CLEAN to make sure we clean everything made, and no more (after any distcheck)
- tools/nut-scanner/Makefile.am: revise the magic of LINKED\_SOURCE\_FILES for distcheck
- tests/Makefile.am: revise the magic of LINKED\_SOURCE\_FILES for distcheck
- tools/nut-scanner/Makefile.am: make sure to symlink sources into \$(builddir)/
- tests/Makefile.am: make sure to symlink sources into \$(builddir)/
- tools/nut-scanner/Makefile.am: work around dmake bugs
- tests/Makefile.am: work around dmake bugs
- tools/nut-scanner/Makefile.am: quote pathnames, and force the symlink (to overwrite older if any)
- tests/Makefile.am: quote pathnames, and force the symlink (to overwrite older if any)



- Makefile.am: distclean-local: first find(), then rm() the findings (find-recursion fails otherwise)
- tools/nut-scanner/Makefile.am: symlink source used from another directory into current builddir, do avoid external ".deps/" usage
- tests/Makefile.am: symlink source used from another directory into current builddir, do avoid external ".deps/" usage
- Makefile.am, clients/Makefile.am, common/Makefile.am, drivers/Makefile.am, server/Makefile.am, tests/Makefile.am, tools/nut-scanner/Makefile.am: \*/Makefile.am: Do not clean ".deps" in SUBDIRS of the main project
- Makefile.am, clients/Makefile.am, common/Makefile.am, conf/Makefile.am, data/Makefile.am, data/html/Makefile.am, docs/Makefile.am, docs/cables/Makefile.am, docs/man/Makefile.am, drivers/Makefile.am, include/Makefile.am, lib/Makefile.am, scripts/Makefile.am, scripts/Solaris/Makefile.am, scripts/augeas/Makefile.am, scripts/devd/Makefile.am, scripts/hotplug/Makefile.am, scripts/python/Makefile.am, scripts/systemd/Makefile.am, scripts/udev/Makefile.am, scripts/ufw/Makefile.am, scripts/upsdrvsvctl/Makefile.am, server/Makefile.am, tests/Makefile.am, tools/Makefile.am, tools/nut-scanner/Makefile.am: \*/Makefile.am: revise CLEANFILES and DISTCLEANFILES (favored over clean-local target rules)

## 2.972 2021-11-05 Dim <[dmitrijukov@eaton.com](mailto:dmitrijukov@eaton.com)>

- drivers/snmp-ups.c, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_snmp.c: Added new auth methods to snmp

## 2.973 2021-11-04 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>

- tools/nut-scanner/Makefile.am: use libcommon.la as part of libnutscan.(la|so)
- tools/nut-scanner/nut-scanner.c: revise parsing of --thread via strtol() Inspired by 42ITy fork approach to similar issue
- tools/nut-scanner/nut-scanner.c: rename "--jobs" to "--thread" Inspired by 42ITy fork approach to similar issue
- tools/nut-scanner/nut-scanner.c: refine sanity-checks for nofile\_limit,rlim\_cur value range
- tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http.c: tools/nut-scanner/nut-scanner.c \+ scan\_xml\_http.c + scan\_snmp.c + scan\_nut.c + nut-scan.h: Add a hard limit on netxml scanning thread count
- configure.ac, tools/nut-scanner/nut-scanner.c: tools/nut-scanner/nut-scanner.c \+ configure.ac: detect if getrlimit() is usable
- tools/nut-scanner/nut-scanner.c: constrain default or requested job count with current ulimit -n (minus known overhead)
- tools/nut-scanner/nut-scanner.c: whitespace fix
- tools/nut-scanner/nut-scanner.c: wrap long line

## 2.974 2021-11-04 Jim Klimov <[EvgenyKlimov@eaton.com](mailto:EvgenyKlimov@eaton.com)>

- tools/nut-scanner/Makefile.am: do not build common.c into nut-scanner (avoid double-definition of nut\_debug\_level among other things)
- tools/nut-scanner/Makefile.am: fix rule for NUT\_SCANNER\_DEPS to be sure
- clients/Makefile.am, common/Makefile.am, drivers/Makefile.am, server/Makefile.am, tests/Makefile.am, tools/nut-scanner/Makefile.am: \*/Makefile.am: define dependencies on out-of-dir \*.la helper libs: use AM\_MAKEFLAGS (follows-up to PR #1151)
- tools/nut-scanner/Makefile.am: fix rule for NUT\_SCANNER\_DEPS to be sure
- clients/Makefile.am, common/Makefile.am, drivers/Makefile.am, server/Makefile.am, tests/Makefile.am, tools/nut-scanner/Makefile.am: \*/Makefile.am: define dependencies on out-of-dir \*.la helper libs: use AM\_MAKEFLAGS (follows-up to PR #1151)

**2.975 2021-11-03 Jim Klimov <jim@jimklimov.com>**

- tools/nut-scanner/scan\_eaton\_serial.c: limit thread count like in scan\_snmp.c
- tools/nut-scanner/scan\_nut.c: limit thread count like in scan\_snmp.c
- tools/nut-scanner/scan\_xml\_http.c: define TRUE/FALSE
- tools/nut-scanner/scan\_xml\_http.c: limit thread count like in scan\_snmp.c
- tools/nut-scanner/scan\_snmp.c: comment "#endif // HAVE\_PTHREAD" to navigate in code better
- tools/nut-scanner/scan\_snmp.c: only loop to free the thread\_array if any were allocated
- tools/nut-scanner/nut-scan.h, tools/nut-scanner/scan\_snmp.c: tools/nut-scanner/nut-scan.h \+ scan\_snmp.c: © header and some cosmetic fixes
- tools/nut-scanner/nut-scanner.c: bump default max\_threads to not lag with /24 subnets
- configure.ac, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/nut-scanner.c: not all glibc versions HAVE\_PTHREAD\_TRYJOIN
- tests/.gitignore: GitIgnore test log and trace for "getvaluetest"

**2.976 2021-11-03 Jim Klimov <EvgenyKlimov@eaton.com>**

- tools/nut-scanner/scan\_snmp.c: only sleep after attempting pthread\_tryjoin\_np() if nothing got cleaned away
- tools/nut-scanner/scan\_snmp.c: hide debug logging for thread herding
- tools/nut-scanner/nut-scan.h, tools/nut-scanner/scan\_snmp.c: tools/nut-scanner/scan\_snmp.c: update comments and messages
- tools/nut-scanner/scan\_snmp.c: update log-tracing of pthread herding
- tools/nut-scanner/scan\_snmp.c: move locking of total thread count change when we add one
- tools/nut-scanner/scan\_snmp.c: limit the thread count for parallelized scanning
- tools/nut-scanner/nut-scanner.c: add a threadcount\_mutex to use in all children
- tools/nut-scanner/scan\_snmp.c: handle max\_threads, curr\_threads
- tools/nut-scanner/nut-scanner.c: add support for -j N (--jobs=N) option to limit simultaneous scanning threads
- tools/nut-scanner/scan\_snmp.c: comment a FIXME for limiting the pthread count
- tools/nut-scanner/nutscan-ip.c: nutscan\_cidr\_to\_ip(): forbid scanning whole Internet
- tools/nut-scanner/nutscan-ip.c: tone down the debug-logging of CIDR processing
- tools/nut-scanner/nutscan-ip.c: only free cidr\_tok after we are done manipulating its memory buffer
- tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-ip.c: nutscan-ip.c, nut-scanner.c: instrument the CIDR processing to trace an error

**2.977 2021-11-02 Jim Klimov <jim@jimklimov.com>**

- docs/documentation.txt, docs/man/dummy-ups.txt: docs/documentation.txt \+ docs/man/dummy-ups.txt: refer to tools/nut-ddl- in the same manner (issue #1111)
  - docs/man/dummy-ups.txt: fix use of "link:" tag in asciidoc (issue #1111) and slightly reword
  - docs/documentation.txt: fix use of "link:" tag in asciidoc (issue #1111) and slightly reword
  - docs/nut-names.txt: fix use of "link:" tag in asciidoc (issue #1111)
  - docs/developers.txt: fix use of "link:" tag in asciidoc (issue #1111)
-

**2.978 2021-11-01 Jim Klimov <jim@jimklimov.com>**

- ci\_build.sh: give the caller a way to disable parallel builds with PARMAKE\_FLAGS="" (space)
- ci\_build.sh: enable parallel builds for default build (one without a BUILD\_TYPE specified)
- ci\_build.sh: enable parallel builds for "distcheck" in default builds, which should now pass well (after usual build and check passed)
- ci\_build.sh: report chosen settings for parallel builds
- configure.ac: test more proactively if valgrind can test things and not crash by itself
- ci\_build.sh: enable parallel builds for "default-tgt:\*" which should now pass well
- ci\_build.sh: guess the available amount of parallelism for the current system; consider load averages for GNU Make too
- docs/Makefile.am, docs/man/Makefile.am: docs/(man/)Makefile.am: move back to builddir all files for the built documents, not just the target name
- docs/Makefile.am, docs/man/Makefile.am: docs/(man/)Makefile.am: before putting back the built documents, clean up the destination if needed and make the workdir removable if needed (a2x can copy system/EXTRA\_DIST resources with their attrs)
- ci\_build.sh: update the heading comment

**2.979 2021-10-31 Jim Klimov <jim@jimklimov.com>**

- docs/Makefile.am, docs/man/Makefile.am: docs/(man/)Makefile.am: only delete target before build if it is a directory (chunked HTML)
  - docs/Makefile.am: update comment about destination dir for asciidoc/a2x
  - docs/man/Makefile.am: Revert "docs/man/Makefile.am: tone down the use of "touch" for multicomponent docs" This reverts commit 0b9ac2500ddbc7bd11a639805d43cda9259bfb1f.
  - docs/Makefile.am: avoid potential for races where same document is built several times (mentioned in different list variables)
  - docs/man/Makefile.am: avoid races where same document is built several times (mentioned in different list variables)
  - docs/man/Makefile.am: Revert "docs/man/Makefile.am: avoid races where same document is built several times (mentioned in different list variables)" This reverts commit 29ae5a8f6e5524d689ebaf2abdf508528288b010.
  - docs/man/Makefile.am: tag DOC-MAN-HTML visibly different from DOC-HTML of the main docs dir
  - docs/man/Makefile.am: avoid races where same document is built several times (mentioned in different list variables)
  - docs/man/Makefile.am: tone down the use of "touch" for multicomponent docs
  - docs/.gitignore, docs/Makefile.am, docs/man/.gitignore, docs/man/Makefile.am: docs/(man/)Makefile.am: fan out doc builds into subdirectories, where we can, so parallel runs do not collide
  - docs/man/Makefile.am: whitespace fixes (drop some indentation)
  - ci\_build.sh: support CI\_REQUIRE\_GOOD\_GITIGNORE=false to bypass fatal error on git status being not empty after build
-

**2.980 2021-10-30 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/Makefile.am: as developer aid, add "(all-)docs" target to try building all types regardless of enablement by configure script; also add "make man" support
- tools/nut-scanner/Makefile.am: reference nut\_version.h in a way that does not offend "make dist(check)"
- tools/nut-scanner/Makefile.am: reference some out-of-dir sources via top\_srcdir (not ../..)
- clients/Makefile.am, drivers/Makefile.am, server/Makefile.am, tests/Makefile.am, tools/nut-scanner/Makefile.am: \*/Makefile.am: define dependencies on out-of-dir \*.la helper libs, and reference them via top\_builddir (not ..)
- common/Makefile.am: reference nut\_version.h in a way that does not offend "make dist(check)"
- ci\_build.sh: default "minimal" ritual should not spend half the time building docs

**2.981 2021-10-27 Jim Klimov <jimklimov@gmail.com>**

- drivers/snmp-ups.c: fix buffer size to possibly print max size\_t

**2.982 2021-10-26 Jim Klimov <jim@jimklimov.com>**

- drivers/hidparser.c: Parse\_ReportDesc(): fix "max" to size\_t and "id" to uint8\_t, to match struct fields
  - drivers/blazer\_usb.c: fix cast of range-checked u\_langid\_fix
  - drivers/blazer\_usb.c: fix cast of return types to size\_t vs int
  - drivers/libhid.c: string\_to\_path(): range-check and cast converted values for path→Node[]
  - drivers/libhid.c: hid\_lookup\_usage(): fix cast of usage\_code for printing and returning
  - drivers/libhid.c: string\_to\_path(): check for type overflow, and cast
  - drivers/libhid.c: fix types for iterating vs rbuflen from int to size\_t
  - drivers/libhid.c, drivers/libhid.h: drivers/libhid.{c,h}: fix interrupt\_size from int to size\_t
  - drivers/libhid.c: fix types for iterating vs rbuflen from int to size\_t
  - drivers/libhid.c, drivers/libhid.h: drivers/libhid.{c,h}: fix max\_report\_size from int to size\_t
  - drivers/libhid.c: file\_report\_buffer(): fix buflen from int to size\_t
  - drivers/hidtypes.h: change HIDDesc\_t.replen[] from (array of) int to size\_t
  - drivers/nutdrv\_qx\_bestups.c: cast for bit math for qx\_status() result
  - drivers/nutdrv\_qx\_voltronic.c: cast for bit math for qx\_status() result, and line-wrap a long message
  - drivers/usbhid-ups.c: cast arg for upsdebug\_hex() to size\_t
  - drivers/nutdrv\_qx\_voltronic-qx-hex.c: cast arg for upsdebug\_hex() to size\_t
  - drivers/libusb.c: libusb\_open(): cast rrlen to unsigned to match usb\_control\_msg() where it is safe to do so
  - drivers/libhid.h: drivers/libusb.h: change reportbuf\_t.len[] from (array of) int to size\_t
  - drivers/hidparser.c, drivers/hidtypes.h: drivers/hidtypes.h \+ hidparser.c: change HIDDesc\_t.nitems from int to size\_t
  - drivers/hidparser.c: cast int types to explicit conversions where safe
  - drivers/snmp-ups.c, drivers/snmp-ups.h: drivers/snmp-ups.{c,h}: fix SU\_FLAG\_\* to (unsigned long) and their usage, to match snmp\_info\_t→flags type
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- drivers/snmp-ups.c: decode\_str(): range-check return of snprintf()
- tests/getvaluetest.c: align test structure with field types in HIDData\_t
- tests/getvaluetest.c: fix bufsize size\_t type
- tests/getvaluetest.c: mark static local methods as such
- drivers/hidparser.c: for skipping botched LogMin/LogMax, also log a message

**2.983 2021-10-22 Jim Klimov <jim@jimklimov.com>**

- autogen.sh: surprise, not all systems have "dos2unix"
- configure.ac: fix use of --with-docs
- configure.ac: fix use of --with-valgrind

**2.984 2021-10-21 Jim Klimov <jim@jimklimov.com>**

- Jenkinsfile-dynamatrix: currently constrain cppcheck phase(s) to fightwarn-related branch/PR builds

**2.985 2021-10-20 Stephan Blecher <\_github@blecher.at>**

- drivers/hidparser.c

**2.986 2021-10-20 Jim Klimov <jim@jimklimov.com>**

- .gitignore, Jenkinsfile-dynamatrix, Makefile.am, ci\_build.sh, configure.ac, docs/config-prereqs.txt, docs/nut.dict, m4/nut\_check\_cppch  
Add recipe support for cppcheck analysis
- ci\_build.sh: let initial DO\_DISTCHECK value be set by caller

**2.987 2021-10-20 Arnaud Quette <arnaud.quette@gmail.com>**

- tools/nut-scanner/scan\_snmp.c: Only try all OIDs if sysOID matching failed

**2.988 2021-10-19 Jim Klimov <jim@jimklimov.com>**

- drivers/nutdrv\_qx\_ablerex.c, drivers/nutdrv\_qx\_ablerex.h: drivers/nutdrv\_qx\_ablerex.{c,h}: heading fixes — name, descr, ©
- drivers/nutdrv\_qx.c, drivers/nutdrv\_qx\_ablerex.c: drivers/nutdrv\_qx.c \+ nutdrv\_qx\_ablerex.c: common whitespace fixes
- drivers/Makefile.am: restore bits lost with initial posting of PR #1135
- drivers/nutdrv\_qx.c: update DRIVER\_VERSION for added "ablerex" support

**2.989 2021-10-18 Alerexsoftware <Alerex.software@ablerex.com.tw>**

- drivers/Makefile.am, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx\_ablerex.c, drivers/nutdrv\_qx\_ablerex.h: Add nutdrv\_qx driver for Alerex model PR #2

**2.990 2021-10-16 Jim Klimov <jimklimov+nut@gmail.com>**

- ci\_build.sh, docs/developers.txt: ci\_build.sh: add BUILD\_TYPE=fightwarn(-clang\l-gcc) for presets with developer aid Also updated docs/developers.txt with example and description

**2.991 2021-10-16 Jim Klimov <jim@jimklimov.com>**

- NEWS, UPGRADING, docs/nut.dict: UPGRADING: notice that upsdebugx() et al became macros in NUT-2.7.5
- NEWS: another expected point for release after 2.7.5

**2.992 2021-10-15 Jim Klimov <jim@jimklimov.com>**

- ci\_build.sh: report Build host settings

**2.993 2021-10-14 Jim Klimov <jim@jimklimov.com>**

- drivers/Makefile.am, drivers/snmp-ups-helpers.c, drivers/snmp-ups.c, drivers/snmp-ups.h: Separate source files of snmp-ups.c (driver core) and snmp-ups-helpers.c (shared mapping tables and funcs) (#1134) \* drivers/Makefile.am: bring some order into snmp\_ups\_SOURCES list \* drivers/snmp-ups.h: update © heading \* drivers/snmp-ups.h: comment that su\_find\*() are related to certain info\_lkp\_t fields \* drivers/snmp-ups.c: extract snmp-ups-helpers.c that can be built independently \* drivers/snmp-ups.h: mark the range of data points related to Subdrivers shared helpers functions

**2.994 2021-10-13 Jim Klimov <jim@jimklimov.com>**

- drivers/snmp-ups.c: su\_find\_strval() should consider #if WITH\_SNMP\_LKP\_FUN

**2.995 2021-10-12 Jim Klimov <jim@jimklimov.com>**

- tools/nut-scanner/nutscan-ip.c: safety-check and cast use of small mask\_byte values
  - drivers/powerware-mib.c, drivers/snmp-ups.c, drivers/snmp-ups.h: drivers/snmp-ups.{h,c} \+ powerware-mib.c: reference date converter by macro name instead of magic number
  - drivers/snmp-ups.c, drivers/snmp-ups.h: drivers/snmp-ups.{h,c}: rename the fun/nuf mappings to fun\_vp2s/nuf\_s2l to match the DMF codebase and ease eventual backports
  - drivers/snmp-ups.h: comment the fun/nuf mapping and their relation to su\_find\_\*() methods
  - drivers/snmp-ups.c: clarify that we pass a "long\*" arg to su\_find\_infoval()
  - drivers/snmp-ups.c: typo fix
  - drivers/snmp-ups.c: clarify in decode\_str() that we pass a "long\*" arg to su\_find\_infoval()
  - drivers/snmp-ups.c, drivers/snmp-ups.h: drivers/snmp-ups.{c,h}: rearrange braces, blank lines and some comments to match the formatting fixes in DMF branch (and to simplify eventual backport)
  - drivers/snmp-ups.c: rearrange mib2nut[] in alphabetic order (except \*ietf tables that go last) and reference mib.c sources
  - tools/nut-scanner/scan\_snmp.c: fix whitespace (indent)
  - Jenkinsfile-dynamatrix: fix regex pattern for dynacfgPipeline.appliesToChangedFilesRegex\_FILES\_PY
  - Jenkinsfile-dynamatrix: parameterize dynacfgPipeline.axisCombos\* and excludeCombos\_DEFAULT\_\* for repetitive settings
  - Jenkinsfile-dynamatrix: parameterize dynacfgPipeline.branchStableRegex
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- docs/ci-farm-lxc-setup.txt: extend sample capability labels with PYTHON variants
- Jenkinsfile-dynamatrix: update for Python-version build scenarios
- Jenkinsfile-dynamatrix: add dynacfgPipeline.appliesToChangedFilesRegex\_FILES\_PY for future handling
- Jenkinsfile-dynamatrix: update dynacfgPipeline.appliesToChangedFilesRegex\_FILES\_RECIPE to consider changes of auto-gen.sh
- tools/nut-scanner/nutscan-serial.c: fix whitespace style
- tools/nut-scanner/nutscan-ip.c: fix whitespace style

## 2.996 2021-10-11 Jim Klimov <jim@jimklimov.com>

- tools/nut-scanner/nutscan-device.c: fix whitespace style
- tools/nut-scanner/scan\_snmp.c: fix whitespace style
- tools/nut-scanner/scan\_avahi.c: fix whitespace style
- tools/nut-scanner/scan\_ipmi.c: fix whitespace style
- tools/nut-scanner/nutscan-serial.c: fix whitespace style
- tools/nut-scanner/nutscan-ip.c: fix whitespace style
- tools/nut-scanner/scan\_xml\_http.c: fix whitespace style
- tools/nut-scanner/scan\_eaton\_serial.c: fix whitespace style
- tools/nut-scanner/nutscan-device.h: fix whitespace style
- tools/nut-scanner/scan\_usb.c: fix whitespace style
- tools/nut-scanner/scan\_nut.c: fix whitespace style
- tools/nut-snmppinfo.py.in: fix whitespace style of generated header
- tools/nut-snmppinfo.py.in: fix heading of generated header
- docs/Makefile.am, docs/man/Makefile.am: docs{./,man}/Makefile.am: quiesce docs-generating targets by default to just state what they make
- docs/nut.dict: Update spellchecker dict

## 2.997 2021-10-09 Jim Klimov <jim@jimklimov.com>

- ci\_build.sh: add support for CI agents setting NUT\_BUILD\_CAPS=valgrind=no
- Makefile.am: make spellcheck from top dir should be quieter (fallout from touchfiles)
- docs/ci-farm-lxc-setup.txt: stress to systemctl restart lxc-net after edits of /etc/lxc/dnsmasq-hosts.conf
- docs/ci-farm-lxc-setup.txt, docs/nut.dict: docs/ci-farm-lxc-setup.txt: stress that for CI\_WRAP\_SH method, the Prefix Start Agent Command should not pollute stderr/stdout
- Jenkinsfile-dynamatrix: report more details about the build host when we "Inspect initial envvars"

## 2.998 2021-10-08 Jim Klimov <jim@jimklimov.com>

- scripts/subdriver/gen-snmpp-subdriver.sh: gen-snmpp-subdriver.sh: deprecate "which" in favor of "command -v"
  - ci\_build.sh: deprecate "which" in favor of "command -v"
-



**2.999 2021-10-07 Jim Klimov <jim@jimklimov.com>**

- m4/nut\_check\_python.m4: export PYTHON(2,3) envvars for other scripts called in the build

**2.1000 2021-10-05 Jim Klimov <jimklimov@gmail.com>**

- autogen.sh: suggest CRLF fixes for the workspace (e.g. if checked out on Windows) This falls a bit short of enforcing with .gitattributes which may or may not interfere with platform-native editors and other tools.

**2.1001 2021-10-05 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac: more AC\_CHECK\_HEADERS\_ONCE
- ci\_build.sh: for default mode (no BUILD\_TYPE) enable cgi and dev files (no⇒auto) and do not require serial drivers (yes⇒auto)
- m4/nut\_type\_socklen\_t.m4: fix detection on windows Probably practical codebase should also account for other arg types, e.g. "SOCKET" that is not even exported into a macro so far.
- ci\_build.sh: report CI\_OS\_NAME detection issues more clearly It is not helpful to read just this: Could not recognize ... from '\_,'

**2.1002 2021-10-05 Jim Klimov <jim@jimklimov.com>**

- docs/nut.dict: Update spellchecker
- NEWS: added FTTx support and other genericups improvenets for NUT-2.7.5

**2.1003 2021-10-04 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/ci-farm-lxc-setup.txt, docs/nut.dict: docs/ci-farm-lxc-setup.txt: recommend a unique Remote root directory per agent
- docs/config-prereqs.txt: Debianish systems tend to deliver g++ in a separate package from gcc
- docs/ci-farm-lxc-setup.txt, docs/nut.dict: docs/ci-farm-lxc-setup.txt: add a chapter on Jenkins Build Agent setup for the containers

**2.1004 2021-10-04 Jim Klimov <jim@jimklimov.com>**

- drivers/apcupsd-ups.c: process(): fix int types
  - drivers/apcupsd-ups.c: upsdv\_initups(): fix type of port
  - drivers/nutdrv\_qx.h: define QX\_FLAG\_\* macros as typed numbers (UL) to match item\_t→qxflags
  - drivers/powercom-hid.c: range-check and cast uint16\_t values for ups delays
  - drivers/nutdrv\_atcl\_usb.c: align return type of usb\_interrupt\_read() and our upsdebug\_hex() args
  - drivers/upscod2.c: align types of two statuses
  - drivers/upscod2.c: fix useconds\_t output\_pace\_usec
  - drivers/upscod2.c: fix speed\_t baud var
  - drivers/upscod2.c: fix ssize\_t ret for ser\*() routines
  - drivers/powerp-txt.c: fix ssize\_t ret for ser\*() routines
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- drivers/powerp-bin.c: fix ssize\_t ret for ser\*() routines, and cmd len
  - drivers/powerpanel.h: adjust powerpanel subdriver\_t funcptr type for initups()
  - drivers/ivtsd.c: fix ssize\_t for ivt\_status() and ser\_\*() involved
  - drivers/riello\_ser.c: riello\_instcmd(): fix int type of delay vs atoi()
  - drivers/riello\_ser.c: fix ssize\_t ret for read() routines
  - drivers/riello\_usb.c: ussleep(): fix useconds\_t type
  - drivers/riello\_usb.c: riello\_instcmd(): fix int type of delay vs atoi()
  - drivers/riello\_usb.c: Get\_USB\_Packet(): fix int type of size
  - drivers/riello.c: riello\_parse\_rc(): cast uint8\_t into char
  - drivers/riello.c: riello\_prepare\*(): cast delay%256 into uint8\_t
  - drivers/riello.c: riello\_parse\_sentr(): cast pom maths into uint16\_t explicitly... range-check missing though
  - drivers/riello.c: riello\_parse\_sentr(): cast uint8\_t  $\Rightarrow$  char to construct Version byte by byte
  - drivers/riello.c: riello\_parse\_gn(): range-check and cast the NomPowerKVA / NomPowerKW
  - drivers/riello.c: riello\_calc\_CRC(): clarify and cast the bitness magic as needed
  - drivers/powercom.c: fix int type of model vars to match OPTImodels/BNTmodels/KINmodels/IMPmodels arrays
  - drivers/powercom.c: avoid casting via wrong int type for termios fields
  - drivers/powercom.c, drivers/powercom.h: drivers/powercom.{c,h}: align int size for delay (min, sec) and ser\_send\_char() sending a char
  - drivers/tripplite.c: fix casting of unsigned delays from atoi()
  - drivers/tripplite.c: fix casting of ints in send\_cmd()
  - drivers/tripplitesu.c: fix casting of ints into unsigned min/max high/low transfer values
  - drivers/nutdrv\_qx\_masterguard.c: hide warnings for intentional variable format string use
  - drivers/nutdrv\_qx\_masterguard.c: avoid a few potential uninitialized uses
  - drivers/nutdrv\_qx\_masterguard.c: fix a case of shadowed vars in a clause
  - drivers/nutdrv\_qx\_masterguard.c: declare local vars and funcs as static
  - drivers/netxml-ups.c: fix casting ssize\_t value up to size\_t for ne\_buffer\_append() args
  - drivers/netxml-ups.c: fix int type of port for ne\_sock\_connect() args
  - drivers/nut-libfreeipmi.c: range-check and cast returned ipmi\_dev  $\rightarrow$  sensors\_count
  - drivers/nut-libfreeipmi.c: libfreeipmi\_get\_sensors\_info(): we check that sdr\_record\_len is not negative, so can cast to (uint)
  - drivers/nut-libfreeipmi.c: libfreeipmi\_get\_board\_info(): range-check and cast mfg\_date\_time
  - drivers/nut-libfreeipmi.c: libfreeipmi\_get\_psu\_info(): range-check and cast libfreeipmi method arguments which are ints
  - drivers/nut-libfreeipmi.c: libfreeipmi\_get\_psu\_info(): range-check and cast libfreeipmi method arguments which are uint8\_t
  - drivers/nut-libfreeipmi.c: nut\_ipmi\_open(): range-check and cast libfreeipmi method arguments which are uint8\_t
  - conf/Makefile.am, docs/man/Makefile.am: avoid prerequisites on suffix rules
  - drivers/apc-mib.c: bump APCC\_MIB\_VERSION for [PR #1113](#)
  - docs/man/genericups.txt, drivers/genericups.c: genericups: officially alias "NULL" and "none" setting keywords
  - Jenkinsfile-dynamatrix: extend QEMU build scenarios to "ssh-qemu-nut-builder" agents, and to iterate "COMPILER" toolkits for cross-check on same platform
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**2.1005 2021-10-03 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/nut.dict: Update spellchecker
- docs/ci-farm-lxc-setup.txt: document making a self-login ssh key for abuild
- docs/ci-farm-lxc-setup.txt: document allowing container SSH server to accept envvars from client

**2.1006 2021-10-03 Jim Klimov <jim@jimklimov.com>**

- Jenkinsfile-dynamatrix: Typo fix: remove extra unstashCleanSrc() for ci\_build.sh preparations
- Jenkinsfile-dynamatrix: allow limited use of QEMU containers as build agents (slow workers ⇒ few combos)

**2.1007 2021-10-02 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac: test if valgrind is actually usable on build/check ssystem
- docs/ci-farm-lxc-setup.txt: fix extraction of hosts-map data
- docs/ci-farm-lxc-setup.txt: make note of lxc-create for other distros
- docs/ci-farm-lxc-setup.txt: add git to early starter-kit of packages

**2.1008 2021-10-02 Jim Klimov <jim@jimklimov.com>**

- configure.ac: quiesce the check for usable valgrind binary
- docs/nut.dict: Update spellchecker
- configure.ac: adapt warnings level (auto, minimal) for GCC with c89/c90/ansi requested builds
- tests/getvaluetest.c: fix declaration of variables in code body, and type of sizeof-derived iterator
- tests/getvaluetest.c: normalize whitespace to NUT style
- tests/getvaluetest.c: add © and descriptive heading

**2.1009 2021-09-30 Jim Klimov <jimklimov+nut@gmail.com>**

- .lgtm.yml: drop redundant lines
- autogen.sh: whitespace fix
- autogen.sh, configure.ac, scripts/systemd/Makefile.am: nut-common.tmpfiles.in: fix systemd magic vs autoconf magic Follows up from [PR #1037](#) for [issue #1030](#) to let the trick work for distcheck and similar out-of-tree builds.

**2.1010 2021-09-30 Jim Klimov <jim@jimklimov.com>**

- Jenkinsfile-dynamatrix, docs/developers.txt: Jenkinsfile-dynamatrix \+ developers.txt: for "GNU C89 standard builds with fatal warnings", only run with a `fightwarn.*89.*` regex branch name; do not pollute logs and analysis of "usual fightwarn" builds
  - Jenkinsfile-dynamatrix: for "GNU C standard builds with non-fatal warnings, without distcheck and docs (must pass)" slow-Build scenario, start with a "gnu89/gnu\+98" non-regression variant
  - Jenkinsfile-dynamatrix: reword some slowBuild filter config descriptions and comments
-

- docs/developers.txt, docs/nut.dict: docs/developers.txt: extend the description of NUT CI setup Clarification of adaptive jobs, running different sets of scenarios, and how to reproduce a failed test case locally. Also updated spellchecker dictionary.
- docs/developers.txt: stress likely incompatibility with stricter C89/GNU89/ANSI-C standard, so C99 (GNU99) is the baseline
- Jenkinsfile-dynamatrix: rearrange for readability (line-split allowedFailure and excludeCombos blocks that have many combos inside)

## 2.1011 2021-09-28 Jim Klimov <jim@jimklimov.com>

- drivers/microdowell.c: shuffle include-file order
  - drivers/microdowell.c: instcmd(): casting and (pragma-hushed) range checks for "delay"
  - drivers/solis.c: convert\_days(): limit the range for safe casting to size\_t for memcpy()
  - drivers/rhino.c: align int types in send\_command()
  - drivers/microsol-common.c, drivers/microsol-common.h: drivers/microsol-common.{c,h}: mark local variables as static; expose a few reasonable ones as extern
  - drivers/microdowell.c, drivers/microdowell.h: drivers/microdowell.{c,h}: fix size\_t lengths and uint16\_t/uint32\_t status bit-masks
  - drivers/phoenixcontact\_modbus.c: declare upsdv\_shutdown() as noreturn
  - drivers/phoenixcontact\_modbus.c: declare file-local variables static
  - drivers/hidparser.c: avoid shadowed local variables in HIDParse()
  - drivers/hidparser.c: fix Value cast in FormatValue()
  - drivers/usbhid-ups.c: fix status\_mask to unsigned int for STATUS() and bitmask maths
  - drivers/usbhid-ups.c: fix parsing of interrupt\_size from args, and error out on invalid inputs
  - drivers/nutdrv\_siemens\_sitop.c: fix counters to unsigned int
  - drivers/mge-hid.c, drivers/usbhid-ups.c, drivers/usbhid-ups.h: drivers/usbhid-ups.{c,h} \+ mge-hid.c: fix ups\_status from int to "unsigned" to match the STATUS() macro and bitmask maths
  - tools/nut-scanner/scan\_snmp.c: fix type for snmp\_sess.timeout assignment
  - drivers/microsol-apc.h: align type of NOMINAL\_POWER[] to int, like nominal\_power var in microsol-common.h
  - drivers/oneac.c: fix buf sizes to size\_t
  - drivers/main.c, drivers/main.h, drivers/mge-utalk.c, drivers/nutdrv\_siemens\_sitop.c, drivers/usbhid-ups.c: drivers/main.{c,h} et al: fix poll\_interval to be time\_t like the time() it has maths with
  - drivers/main.c: allow only positive pollinterval settings (avoid DoS by crazy loop)
  - drivers/main.c: report and fail with invalid pollinterval settings
  - drivers/serial.c: after some investigation of standards, we may cast useconds\_t⇒suseconds\_t
  - server/netset.c: log tracking\_disable() result to find a use for it (warning fix)
  - drivers/richcomm\_usb.c: execute\_and\_retrieve\_query(): fix int casting and add diag pragmas for range checks
  - drivers/bcmxcp\_usb.c: get\_answer(): fix int casting for tail; fix redundant comparison
  - drivers/bestfortress.c: simplify usleep(d\_usec) to no casting
  - drivers/belkin.c: comment why casting usleep(cnt) is okay
-

- drivers/microdowell.h: normalize whitespace within the file
- drivers/microsol-apc.h: whitespace fix
- .gitignore: GitIgnore the tmp/ subdirectory used by CI builds
- .gitignore: GitIgnore Python precompiled files

## 2.1012 2021-09-27 Jim Klimov <jim@jimklimov.com>

- clients/upsclient.c, common/common.c, docs/new-drivers.txt, drivers/serial.c, drivers/serial.h, include/common.h: include/common.h, drivers/serial.{c,h}, docs/new-drivers.txt, common/common.c, clients/upsclient.c: fix d\_sec long  $\Rightarrow$  time\_t to match timeval struct fields
  - include/common.h, common/common.c, clients/upsclient.c: fix select\_read()/select\_write(): long d\_usec  $\Rightarrow$  suseconds\_t
  - docs/nut.dict: update for new-drivers.txt revision
  - docs/new-drivers.txt: align USB-common structure and method signature descriptions with current drivers/usb.h
  - docs/man/upscli\_readline.txt, docs/man/upscli\_sendline.txt: docs/man/upscli\_readline.txt \+ upscli\_sendline.txt: update method arguments to match code (timeout unsigned int  $\Rightarrow$  const long)
  - docs/man/upscli\_list\_next.txt, docs/man/upscli\_list\_start.txt: docs/man/upscli\_list\_start.txt \+ upscli\_list\_next.txt: update method arguments to match code (numa/numq unsigned int  $\Rightarrow$  size\_t)
  - configure.ac: split generation of "data" files vs. "scripts" from \*.in templates
  - configure.ac: Update python scripts to be generated by configure and using the detected PYTHON value
  - clients/nutclient.h: whitespace typo fix
  - docs/developers.txt: fix reference to Fosshost to be an URL
  - .lgfm.yml: Add .lgfm.yml to specify search for python template files \* Index \*.py.in \+ scripts/python/app/NUT-Monitor.in \* Do not consider them templates to ignore \* Also turn off the FIXME alerts, NUT has a lot of those so far
  - NEWS: updated the python 2\+3 compatibility notice
  - Makefile.am: call the generated gitlog2changelog.py from correct path
  - scripts/augeas/Makefile.am, tools/Makefile.am: Fix "dist" targets to call templates gen-nutupsconf-aug.py.in and nut-snmpinfo.py.in that they have
  - scripts/python/module/PyNUT.py.in, scripts/python/module/test\_nutclient.py.in: scripts/python/module/PyNUT.py.in: update syntax for Python 3 (also ok for 2.7)
  - .gitignore: GitIgnore possible leftovers from interrupted configure script run
  - scripts/Solaris/.gitignore, scripts/augeas/.gitignore, scripts/python/app/.gitignore, scripts/python/module/.gitignore, tools/.gitignore: GitIgnore generated python scripts
  - scripts/augeas/Makefile.am: comment where gen-nutupsconf-aug.py comes from
  - autogen.sh: simplify call of gen-nutupsconf-aug.py.in in the subdir
  - autogen.sh: use gen-nutupsconf-aug.py.in with the \$PYTHON interpreter
  - ci\_build.sh: pass \$PYTHON envvar -t configure --with-python=. . . arg
  - configure.ac: split generation of "data" files vs. "scripts" from \*.in templates
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- `configure.ac`, `scripts/Solaris/Makefile.am`, `scripts/Solaris/{precheck.py ⇒ precheck.py.in}`, `scripts/augeas/Makefile.am`, `.../{gen-nutupsconf-aug.py ⇒ gen-nutupsconf-aug.py.in}`, `scripts/python/Makefile.am`, `scripts/python/app/{NUT-Monitor ⇒ NUT-Monitor.in}`, `scripts/python/module/{PyNUT.py ⇒ PyNUT.py.in}`, `.../module/{test_nutclient.py ⇒ test_nutclient.py.in}`, `tools/Makefile.am`, `tools/{gitlog2changelog.py ⇒ gitlog2changelog.py.in}`, `tools/{nut-snmppinfo.py ⇒ nut-snmppinfo.py.in}`: Update python scripts to be generated by `configure` and using the detected PYTHON value
- `configure.ac`, `m4/nut_check_python.m4`: `configure.ac`: detect PYTHON, PYTHON2, PYTHON3 implementations in the build environment
- `autogen.sh`: find various python versions if not specified by \$PYTHON
- `clients/nutclient.h`: whitespace typo fix
- `docs/developers.txt`: fix reference to Fosshost to be an URL
- NEWS: expect a few more milestones for 2.7.6 (or later) release
- UPGRADING: mention protocol changes due to new TRACKING ability
- NEWS, UPGRADING: NEWS \+ UPGRADING: Warn about API changes due to fightwarn

### 2.1013 2021-09-26 Mark Dietzer <[git@doridian.net](mailto:git@doridian.net)>

- `drivers/apc-mib.c`: Add active power and apparent power from APC MIBs for single-phase UPS devices

### 2.1014 2021-09-26 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>

- `drivers/upsdrvctl.c`: fix data types for `alarm()` and `sleep()`
- `drivers/mge-utalk.c`: fix int casting to `snprintf()` (`size_t/ssize_t`)
- `drivers/mge-utalk.c`: fix int casting to `ser_get*()/ser_send_*` (`size_t/ssize_t`)
- `drivers/metasys.c`: fix int casting to `ser_get*()/ser_send_*` (`size_t/ssize_t`)
- `drivers/liebert-esp2.c`: fix int casting to `ser_get*()` (`size_t/ssize_t`)
- `drivers/gamatronic.c`: fix int casting to `ser_get*()` (`size_t/ssize_t`) and unify naming of `msg(_)`len
- `drivers/bestups.c`: fix int casting to `ser_get*()` (`size_t/ssize_t`)
- `drivers/bestuferrups.c`: fix int casting to `ser_get*()` (`size_t/ssize_t`)
- `drivers/bestfortress.c`: fix int casting to `ser_get*()` (`size_t/ssize_t`)
- `drivers/bestfcom.c`: fix int casting to `ser_get*()` (`size_t/ssize_t`)
- `drivers/belkinunv.c`: fix int casting to `ser_get*()`, `read()` and `write()` (`size_t/ssize_t`)
- `drivers/belkin.c`: fix int casting to `ser_get*()` (`size_t/ssize_t`)
- `drivers/al175.c`: fix `raw_data_t::buf_size` and `io_head_t::addr,len` to `size_t`
- `drivers/al175.c`: fix int casting to `ser_get*()` (`size_t/ssize_t`)
- `drivers/dstate.c`: augment range check when using `size_t` as int
- `drivers/dstate.c`: fix int casting to `read()` and `write()`, add range checks for bytes written (`size_t/ssize_t`)
- `Jenkinsfile-dynamatrix`: for a non-PR build of a `fightwarn*` branch, reference *fightwarn* for analysis

**2.1015 2021-09-25 Jim Klimov <jim@jimklimov.com>**

- docs/developers.txt, docs/nut.dict: docs/developers.txt: replace references to defunct Travis CI with new NUT CI farm [#869]
- docs/nut-qa.txt, docs/nut.dict: docs/nut-qa.txt: replace references to defunct Travis CI with new NUT CI farm [#869]
- Jenkinsfile-dynamatrix: with customized shellcheck dynamatrixAxesLabels, be sure to match both OS\_FAMILY and OS\_DISTRO as a bundle
- Jenkinsfile-dynamatrix: with docs\+distcheck, also test compliance with available Make interpreters
- Jenkinsfile-dynamatrix: with shellcheck, also test available Make interpreters
- Makefile.am, configure.ac, include/Makefile.am: configure.ac \+ {./,include/}Makefile.am: revise the recipe for include/nut\_version.h
- docs/nut.dict: update dict
- ci\_build.sh: call "\$MAKE -j NUM" with a space, to cater for make implems that require a separate argument token

**2.1016 2021-09-23 Jim Klimov <jimklimov@gmail.com>**

- docs/nut.dict: Update nut.dict

**2.1017 2021-09-23 Jim Klimov <jim@jimklimov.com>**

- drivers/generic\_modbus.c: drivers/generic\_modbus.{c,h}: fix whitespace style (original fix from master branch)
- drivers/bcmxcp\_usb.c: fix elapsed\_time type and casting
- drivers/bcmxcp.c, drivers/bcmxcp\_io.h, drivers/bcmxcp\_ser.c, drivers/bcmxcp\_usb.c: drivers/bcmxcp\*.{c,h}: fix types involved with read() and write() to ssize\_t
- tools/nut-scanner/nutscan-serial.c: fix count to size\_t
- tools/nut-scanner/scan\_avahi.c: fix buf\_size to size\_t
- tools/nut-scanner/scan\_eaton\_serial.c: fix types involved with read() and write() to ssize\_t
- tools/nut-scanner/scan\_eaton\_serial.c: fix size\_t thread\_count and its iterator
- drivers/serial.c, drivers/serial.h: drivers/serial.[h,c]: fix d\_usec from long to useconds\_t
- tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_avahi.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http.c: tools/nut-scanner\*.[h,c]: fix usec\_timeout from long to useconds\_t
- tools/nut-scanner/scan\_xml\_http.c: fix size\_t thread\_count and its iterator
- tools/nut-scanner/scan\_xml\_http.c: fix recv\_size use as size\_t parameter
- tools/nut-scanner/nut-scan.h, tools/nut-scanner/scan\_xml\_http.c: tools/nut-scanner/nut-scan.h \+ scan\_xml\_http.c: fix port type to uint16\_t
- tools/nut-scanner/scan\_snmp.c: fix arg type for generate\_Ku()
- drivers/apc-hid.c, drivers/bcmxcp\_usb.c, drivers/belkin-hid.c, drivers/blazer\_usb.c, drivers/cps-hid.c, drivers/delta\_ups-hid.c, drivers/idowell-hid.c, drivers/liebert-hid.c, drivers/mge-hid.c, drivers/nutdrv\_atcl\_usb.c, drivers/openups-hid.c, drivers/powercom-hid.c, drivers/powervar-hid.c, drivers/richcomm\_usb.c, drivers/riello\_usb.c, drivers/tripplite-hid.c, drivers/tripplite\_usb.c, drivers/usb-common.c, drivers/usb-common.h: drivers/usb-common.{c,h} drivers/\*{usb,hid}.c: fix type of usb\_device\_id\_t vendorID/productID to uint16\_t \* usb-common.h: fix the definition \* \*{usb,hid}.c: sentinel in a table of uint16\_t can not be -1 \* usb-common.c: uint16\_t for vendor and product — change sentinel matcher for full (0,0,NULL) hits
- tools/nut-scanner/nutscan-ip.c: tools/nut-scanner/scan\_xml\_http.c: 32-bit IPv4 addr mask should be uint32\_t not int



- tools/nut-scanner/nutscan-ip.c: tools/nut-scanner/scan\_xml\_http.c: 32-bit IPv4 addr should be uint32\_t not int
  - tools/nut-scanner/nutscan-ip.c: use platform-dependent getnameinfo() argument types
  - tools/nut-scanner/scan\_snmp.c: fix size\_t thread\_count and its iterator
  - tools/nut-scanner/scan\_nut.c: fix size\_t thread\_count and its iterator
  - tools/nut-scanner/scan\_nut.c: fix size\_t buf\_size
  - tools/nut-scanner/scan\_nut.c: align upscli\_\*(\*) numa and numq args from "unsigned int" to "size\_t", to match PCONF\_CTX\_t fields
  - server/upsd.c: fix comparisons of nfds\_t maxconn, long sysconf() and size\_t malloc()
  - server/upsd.c: check if maxconn<1 to avoid signedness issues and because zero connections are also useless
  - server/upsd.c: align use of nfds\_t vs. long (maxconn) for GCC "-Wtype-limits"
  - tools/nut-scanner/scan\_ipmi.c: range-check and cast ipmi\_sec→authentication\_type ipmi\_sec→privilege\_level ipmi\_id to match method signatures
  - drivers/bcmxcp.c: fix whitespace style
  - drivers/bcmxcp\_ser.c: fix whitespace style
  - tools/nut-scanner/scan\_avahi.c: fix whitespace style
  - tools/nut-usbinfo.pl: tools/nut-usbinfo.pl ⇒ generated nutscan-usb.h: sentinel in a table of uint16\_t can not be -1
  - m4/nut\_func\_getnameinfo\_argtypes.m4: reorder the loop to first try current X/Open definition of getnameinfo()
  - configure.ac, m4/nut\_check\_headers\_windows.m4, m4/nut\_func\_getnameinfo\_argtypes.m4: m4/nut\_func\_getnameinfo\_argtypes.m4 m4/nut\_check\_headers\_windows.m4: lift recipes from cURL to detect NUT\_FUNC\_GETNAMEINFO\_ARGTYPES
  - tools/nut-scanner/scan\_xml\_http.c: fix whitespace style
  - tools/nut-scanner/scan\_usb.c: fix whitespace style
  - tools/nut-scanner/scan\_snmp.c: fix whitespace style
  - tools/nut-scanner/scan\_nut.c: fix whitespace style
  - tools/nut-scanner/scan\_ipmi.c: fix whitespace style
  - tools/nut-scanner/scan\_eaton\_serial.c: fix whitespace style
  - tools/nut-scanner/scan\_avahi.c: fix whitespace style
  - tools/nut-scanner/nutscan-serial.c: fix whitespace style
  - tools/nut-scanner/nutscan-ip.c, tools/nut-scanner/nutscan-ip.h: tools/nut-scanner/nutscan-ip.c: fix whitespace style
  - tools/nut-scanner/nutscan-init.c: fix whitespace style
  - tools/nut-scanner/nutscan-device.c, tools/nut-scanner/nutscan-device.h: tools/nut-scanner/nutscan-device.[c,h]: fix whitespace style
  - tools/nut-scanner/nutscan-display.c: fix whitespace style
  - tools/nut-scanner/nut-scanner.c: fix whitespace style
  - tools/nut-scanner/nut-scan.h: fix whitespace style
  - ci\_build.sh: warn that a build without BUILD\_TYPE ignores BUILD\_WARNOPT and BUILD\_WARNFATAL settings
  - drivers/generic\_modbus.c: fix assignments of sigar[].type to enum
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- drivers/generic\_modbus.c: drivers/generic\_modbus.{c,h}: fix ser\_parity to char, and sanity-check before dereferencing
- drivers/generic\_modbus.c: fix switch{ } warnings
- drivers/generic\_modbus.c: fix suseconds\_t for time ranges
- drivers/generic\_modbus.c: fix warnings with declarations
- drivers/generic\_modbus.c, drivers/generic\_modbus.h: drivers/generic\_modbus.{c,h}: fix whitespace style
- NEWS: added triplite ability to manage outlet groups for NUT-2.7.5

### 2.1018 2021-09-22 Yifeng Li <tomli@tomli.me>

- docs/nut.dict: nut.dict: add my name "Yifeng".
- docs/nut.dict: nut.dict: add technical terms for UPS2000 man page.
- docs/man/Makefile.am, docs/man/huawei-ups2000.txt: huawei-ups2000: add documentation.
- drivers/Makefile.am, drivers/huawei-ups2000.c: huawei-ups2000: Modbus driver for Huawei UPS2000 (1kVA-3kVA) This commit implements a Modbus driver for Huawei UPS2000 (1kVA-3kVA) series UPS units using the USB or RS-232 interface (USB is only support on Linux 5.12+ via the "xr\_serial" kernel module), with support for power and battery status monitoring, alarm reporting, RW variables, and instant commands for battery selftest, buzzer, shutdown, restart, and bypass control.

### 2.1019 2021-09-22 Jim Klimov <jim@jimklimov.com>

- server/sstate.c: fix missed include
- server/conf.c, server/upsd.c, server/upsd.h: server/upsd.c \+ conf.c: align use of nfds\_t vs. long (maxconn)
- server/upsd.c: align use of uint8\_t when constructing an UUID
- clients/upsclient.c, server/netssl.c: server/netssl.c \+ clients/upsclient.c: fix ssl\_error() to use ssize\_t "ret"
- server/sstate.c: fix int casting to read() and write(), add range checks for bytes written (size\_t/ssize\_t)
- clients/upsc.c, clients/upsclient.c, clients/upsclient.h, clients/upscmd.c, clients/upsimage.c, clients/upslog.c, clients/upsmon.c, clients/upsrw.c, clients/upsset.c, clients/upsstats.c, docs/man/upscli\_get.txt, drivers/dummy-ups.c: clients/upsclient.h and numerous \*.c: align upscli\_get(), upscli\_list\_start(), upscli\_list\_next() numa and numq args from "unsigned int" to "size\_t", to match PCONF\_CTX\_t fields
- clients/upsmon.c: fix int casting to read() and write(), add separate retval processing from system()
- clients/upssched.c: fix int casting to read() and write(), add range checks for bytes written (size\_t/ssize\_t)
- clients/upsclient.c: fix receiver of strtol(), and log a FIXME for sanity checks
- clients/upsmon.c: fix receiver of strtol()
- clients/upssched.c: fix receiver of strtol()
- clients/upsmon.c: fix int type for use of upscli\_readline()
- clients/upscmd.c: fix int type for use of upscli\_readline()
- clients/upsimage.c: fix int casting
- clients/upsrw.c: fix receiver of strtol()
- drivers/nutdrv\_qx.c, server/netset.c: server/netset.c \+ drivers/nutdrv\_qx.c: fix consumers of "long" getaux()
- common/str.c: fix buffer int length in str\_to\_\*int\*() methods

- common/state.c, include/state.h, server/sstate.c, server/sstate.h: common/state.c \+ server/sstate.c + \*.h: aux field is a "long" so getaux() should return long
  - common/common.c, include/common.h: common/common.c: fix use of a pid\_t value
  - tests/cpptest.cpp: avoid "no out-of-line virtual method definitions" (weak-vtables)
  - tests/nutclienttest.cpp: tests/nutclienttest.h: avoid "unused exception parameter ex"
  - clients/nutclientmem.h: avoid "extra ; after method" warnings
  - clients/upsclient.c, configure.ac: clients/upsclient.c \+ configure.ac: fix use of CPU\_TYPE
  - configure.ac: add "-Wno-cast-qual" to clang-medium and clang-hard warnings levels
  - m4/ax\_c\_pragmas.m4: introduce HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_SIGN\_COMPARE and HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_CAST Sometimes library/system provided types are beyond our control and vary from OS to OS...
  - server/sstate.c: whitespace fix
  - tests/Makefile.am: comment a TODO for referencing helpers built in other dirs
  - docs/nut.dict: updated for recent NEWS and UPGRADING
  - UPGRADING: clarified upsdebugx() [D#] prefix impact
  - UPGRADING: stress that new Qx protocol drivers should be developed in common nutdrv\_qx framework
  - UPGRADING: Cut-off features that did land into master branch to become the 2.7.5 release, vs. big chunks planned now for later releases
  - NEWS: update reference to ChangeLog file vs. Git history
  - NEWS: refactored upsdebugx() and friends as macros for NUT-2.7.5
  - NEWS: HCL updated with Ippon Back Comfo Pro II 650/850/1050 (USB) for NUT-2.7.5
  - NEWS: added and clarified many battery.\* protocol variables for NUT-2.7.5
  - NEWS: netxml-ups battery info fixed for NUT-2.7.5
  - NEWS: HCL updated with Opti-UPS PS1500E (USB) for NUT-2.7.5
  - NEWS: referenced Date and Time representations preferred for NUT-2.7.5
  - NEWS: added generic\_modbus driver for NUT-2.7.5
  - NEWS: updated systemd integration for NUT-2.7.5
  - NEWS: added autoconf-2.70 update for NUT-2.7.5
  - NEWS: added portable Makefile effort for NUT-2.7.5
  - NEWS: added incremental "make spellcheck" support for NUT-2.7.5
  - NEWS: Cut-off features that did land into master branch to become the 2.7.5 release, vs. big chunks planned now for later releases
  - NEWS: added DISABLE\_WEAK\_SSL for NUT-2.7.5
  - docs/config-prereqs.txt: cosmetically update OmniOS notes
  - docs/ci-farm-lxc-setup.txt: comment a TODO for NAT setup desired
  - docs/ci-farm-lxc-setup.txt: comment why LXC\+LIBVIRT
  - docs/ci-farm-lxc-setup.txt, docs/config-prereqs.txt, docs/user-manual.txt: docs/config-prereq.txt \+ ci-farm-lxc-setup.txt \+ user-manual.txt: fix markup so new docs can be chapters in user-manual.html
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**2.1020 2021-09-21 Jim Klimov <jimklimov@gmail.com>**

- drivers/legrand-hid.c: Update legrand-hid.c Address build warnings from CI

**2.1021 2021-09-21 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/Makefile.am: try to avoid "warning: ignoring prerequisites on suffix rule definition"
  - docs/Makefile.am: when calling a sub-make for \*-spellchecked rule, make sure to use the "\$ (abs\_top\_builddir)/docs/Makefile" (the original "top\_builddir" might come from outer caller in another subdir)
  - docs/Makefile.am: move reading of the spellchecked file out of the pipe so errors finding one are exposed to build result
  - conf/Makefile.am, data/Makefile.am, docs/Makefile.am, docs/man/Makefile.am: docs/Makefile.am: conjure a portable \*-spellchecked rule that works for non-GNU make tools
  - docs/Makefile.am: comment about a non-portable GNU Make feature use
  - docs/Makefile.am: for no-op \*-spellchecked rule, report SKIP-ASPELL with the target (touchfile) name to avoid source-text determination
  - docs/Makefile.am: be sure to run the quiet sub-make using docs/Makefile.am to use its target definitions
  - docs/Makefile.am: if SPELLCHECK\_ENV\_DEBUG, report which file we would spellcheck (quiet sub-make might do and report nothing for an already checked text)
  - docs/Makefile.am: consider "-spellchecked" among SUFFIXes
  - docs/Makefile.am: comment about a non-portable GNU Make feature use
  - docs/Makefile.am: try to avoid "warning: ignoring prerequisites on suffix rule definition"
  - docs/Makefile.am: when calling a sub-make for \*-spellchecked rule, make sure to use the "\$ (abs\_top\_builddir)/docs/Makefile" (the original "top\_builddir" might come from outer caller in another subdir)
  - docs/Makefile.am: move reading of the spellchecked file out of the pipe so errors finding one are exposed to build result
  - conf/Makefile.am, data/Makefile.am, docs/Makefile.am, docs/man/Makefile.am: docs/Makefile.am: conjure a portable \*-spellchecked rule that works for non-GNU make tools
  - docs/Makefile.am: comment about a non-portable GNU Make feature use
  - docs/Makefile.am: for no-op \*-spellchecked rule, report SKIP-ASPELL with the target (touchfile) name to avoid source-text determination
  - docs/Makefile.am: be sure to run the quiet sub-make using docs/Makefile.am to use its target definitions
  - docs/Makefile.am: if SPELLCHECK\_ENV\_DEBUG, report which file we would spellcheck (quiet sub-make might do and report nothing for an already checked text)
  - docs/Makefile.am: consider "-spellchecked" among SUFFIXes
  - docs/Makefile.am: comment about a non-portable GNU Make feature use
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**2.1022 2021-09-21 Jim Klimov <jim@jimklimov.com>**

- scripts/Solaris/postinstall.in, scripts/Solaris/preremove.in: scripts/Solaris/preremove.in \+ postinstall.in: configure sanity checker likes datarootdir more than datadir
  - ci\_build.sh: fix reported BUILD\_TYPE for default-spellcheck builds
  - .gitignore, Makefile.am, conf/Makefile.am, data/Makefile.am, docs/Makefile.am, docs/cables/Makefile.am, docs/man/Makefile.am, lib/Makefile.am, scripts/augeas/Makefile.am, scripts/ufw/Makefile.am, tools/nut-scanner/Makefile.am: Makefiles: change from \*.spellchecked suffix pattern to \*-spellchecked which is easier to plug into POSIX make rulesets
  - Makefile.am, conf/Makefile.am, configure.ac, data/Makefile.am, docs/Makefile.am, docs/cables/Makefile.am, docs/man/Makefile.am, lib/Makefile.am, scripts/Makefile.am, scripts/augeas/Makefile.am, scripts/ufw/Makefile.am, tools/nut-scanner/Makefile.am: Makefiles \+ configure.ac: add a way to "make clean" away the \*.spellchecked touch-files
  - .gitignore, conf/Makefile.am, data/Makefile.am, docs/Makefile.am, docs/man/Makefile.am: Makefiles: mark every spellchecked text file with a touch-file to not re-test it again needlessly (at a cost of some noise for some implementations of make)
  - scripts/Solaris/postinstall.in, scripts/Solaris/preremove.in: scripts/Solaris/preremove.in \+ postinstall.in: configure sanity checker likes datarootdir more than datadir
  - ci\_build.sh: fix reported BUILD\_TYPE for default-spellcheck builds
  - .gitignore, Makefile.am, conf/Makefile.am, data/Makefile.am, docs/Makefile.am, docs/cables/Makefile.am, docs/man/Makefile.am, lib/Makefile.am, scripts/augeas/Makefile.am, scripts/ufw/Makefile.am, tools/nut-scanner/Makefile.am: Makefiles: change from \*.spellchecked suffix pattern to \*-spellchecked which is easier to plug into POSIX make rulesets
  - Makefile.am, conf/Makefile.am, configure.ac, data/Makefile.am, docs/Makefile.am, docs/cables/Makefile.am, docs/man/Makefile.am, lib/Makefile.am, scripts/Makefile.am, scripts/augeas/Makefile.am, scripts/ufw/Makefile.am, tools/nut-scanner/Makefile.am: Makefiles \+ configure.ac: add a way to "make clean" away the \*.spellchecked touch-files
  - .gitignore, conf/Makefile.am, data/Makefile.am, docs/Makefile.am, docs/man/Makefile.am: Makefiles: mark every spellchecked text file with a touch-file to not re-test it again needlessly (at a cost of some noise for some implementations of make)
  - docs/nut.dict: update for recent changes
  - docs/man/apcsmart.txt, docs/man/generic\_modbus.txt: docs/man/apcsmart.txt: fix an indented block
  - docs/man/apcsmart.txt, docs/man/generic\_modbus.txt: docs/man/generic\_modbus.txt \+ apcsmart.txt: drop "[source, conf]" decorators for sample configs and ASCII-art, pygmentize needs much setup to render that
  - docs/config-prereqs.txt: add "pygmentize" packages to the list, for HTML rendering of "source" blocks
  - docs/man/generic\_modbus.txt: import a note from discussion at NUT [issue #1056](#) about the data-path and generic use for the modbus driver
  - docs/man/generic\_modbus.txt: line-wrap long paragraphs
  - tests/nutlogtest.c: fix more fallout from [#675](#)
  - configure.ac, m4/nut\_check\_libnss.m4: m4/nut\_check\_libnss.m4: fix deterministic 32/64 bit builds (on illumos/solaris family of OSes at least)
  - ci\_build.sh: tweak PKG\_CONFIG\_PATH setting for 64-bit dirs on illumos/solaris and related operating systems (otherwise pkg-config reports default data, can be for 32-bit libs, on 64-bit hosts)
  - ci\_build.sh: report detected CI\_OS\_NAME if we had to guess
  - ci\_build.sh: for developer workstation use, detect CI\_OS\_NAME via uname as a fallback (if CI vars are not provided)
  - ci\_build.sh: recognize CI\_OS\_NAME from case-insensitive match of "\$OS\_FAMILY-\$OS\_DISTRO", and recognize solaris\+sunos
  - include/common.h: Fix some fallout from [PR #685](#) \* The parenthesized "(label)" in debug macros is a safer expansion than the original "label" \* Avoid the dangling "args. . ." that may be not-specified by caller (strict-C99 compat)
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- docs/Makefile.am: do not spellcheck ../INSTALL which is generated
- ci\_build.sh: run the first spellcheck really quietly
- docs/Makefile.am, docs/nut.dict: docs/Makefile.am \+ docs/nut.dict: add more texts from base dir to spellcheck them too
- docs/Makefile.am: report the directory relative to which spellchecked text sources failed
- Jenkinsfile-dynamatrix: use ci\_build.sh to spellcheck with a more user-friendly output
- ci\_build.sh: extend the BUILD\_TYPE=default-spellcheck to do a quiet round first, and only report details about failed files if needed
- ci\_build.sh: fallback BUILD\_WARNFATAL=true/false handling; comment values for BUILD\_WARNOPT
- docs/man/generic\_modbus.txt: some whitespace issues
- m4/nut\_type\_socklen\_t.m4: [NUT [issue #1053](#)] m4/nut\_type\_socklen\_t.m4: convert one remaining AC\_TRY\_COMPILE(H,M,S) into modern AC\_COMPILE\_IFELSE(AC\_LANG\_PROGRAM(H,M), S)
- configure.ac: [NUT [issue #1053](#)] configure.ac: apply recommendations of "autoupdate" and warnings from "autoconf" for autotools-2.70

#### 2.1023 2021-09-20 Jim Klimov <[jimklimov+nut@gmail.com](mailto:jimklimov+nut@gmail.com)>

- docs/Makefile.am, docs/ci-farm-lxc-setup.txt: docs/ci-farm-lxc-setup.txt \+ docs/Makefile.am: update some notes and ability to build the new doc
- docs/Makefile.am, docs/ci-farm-lxc-setup.txt: docs/ci-farm-lxc-setup.txt \+ docs/Makefile.am: update some notes and ability to build the new doc

#### 2.1024 2021-09-20 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>

- docs/nut.dict: update for recently added docs and merged PRs, and update sorting
- docs/config-prereqs.txt: config-prereqs.txt: fix markup to become asciidoc
- docs/ci-farm-lxc-setup.txt: ci-farm-lxc-setup.txt: update with notes for "chroot apt-get" tricks
- docs/ci-farm-lxc-setup.txt: ci-farm-lxc-setup.txt: fix markup to become asciidoc
- docs/config-prereqs.txt: config-prereqs.txt: fix markup to become asciidoc
- tests/.gitignore: GitIgnore test log and trace for "nutlogtest"
- docs/nut.dict: ordering and typo fixes in the dictionary :)
- docs/ci-farm-lxc-setup.txt: ci-farm-lxc-setup.txt: update with notes for "chroot apt-get" tricks
- docs/ci-farm-lxc-setup.txt: ci-farm-lxc-setup.txt: fix markup to become asciidoc

#### 2.1025 2021-09-19 Jim Klimov <[jimklimov+nut@gmail.com](mailto:jimklimov+nut@gmail.com)>

- docs/ci-farm-lxc-setup.txt: Introduce docs/ci-farm-lxc-setup.txt with setup notes
- docs/ci-farm-lxc-setup.txt: Introduce docs/ci-farm-lxc-setup.txt with setup notes

#### 2.1026 2021-09-19 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>

- docs/nut-names.txt: refactor the standalone Time and Date format chapter
-

**2.1027 2021-09-17 Jim Klimov <jimklimov@gmail.com>**

- Jenkinsfile-dynamatrix: Update Jenkinsfile-dynamatrix Revise pattern for Makefiles and similar
- Jenkinsfile-dynamatrix: Update Jenkinsfile-dynamatrix Do not apply filename regex filtering to main branch builds so they can always serve as a reference
- Jenkinsfile-dynamatrix: Update Jenkinsfile-dynamatrix Remove *default* target as it brings little value: default-tgt:distcheck-valgrind tests the distcheck part, and default-nodoc tests the main recipe with default settings and no distcheck (both skip/disable docs).

**2.1028 2021-09-17 Jim Klimov <jim@jimklimov.com>**

- Jenkinsfile-dynamatrix: modularize the way to constrain build scenarios not relevant to the changed files
- Jenkinsfile-dynamatrix: find a way to constrain build scenarios not relevant to the changed files (e.g. no big rebuilds for a docs-only change)

**2.1029 2021-09-16 dtsecon <dimitris.s.economou@gmail.com>**

- drivers/generic\_modbus.c: change ulon to uint\_32
- drivers/generic\_modbus.h: fix forward declarations of enum occurrences

**2.1030 2021-09-16 Jim Klimov <jimklimov@gmail.com>**

- docs/nut.dict: Update nut.dict
- docs/nut.dict: Update nut.dict
- docs/nut-names.txt: Update nut-names.txt Clarified an ambiguity typo about time format, added examples for data with time zones

**2.1031 2021-09-15 Jim Klimov <jimklimov@gmail.com>**

- docs/nut.dict: Update nut.dict Update for [PR #1076](#)
- docs/nut.dict: Update nut.dict Add "FTTx" for [PR #1061](#)
- tests/getvaluetest.c: Update getvaluetest.c Include NUT "common.h" for NUT\_UNUSED\_VARIABLE among other things
- tests/getvaluetest.c: getvaluetest.c: Fixing a NUT\_UNUSED\_VARIABLE

**2.1032 2021-09-15 Jim Klimov <jim@jimklimov.com>**

- clients/upsclient.c: upsclient.c: log upscli\_init() as a no-op in case of builds without SSL
  - clients/upsclient.c: upsclient.c: add NUT\_UNUSED\_VARIABLE for the stub implem in case of builds without SSL
  - server/netssl.c: netssl.c: add NUT\_UNUSED\_VARIABLE for the stub implem in case of builds without SSL
  - Jenkinsfile-dynamatrix: limit default-withdoc(:man) scenarios to not iterate compiler variants, only OSes
  - Jenkinsfile-dynamatrix: add a comment with overview of the dynacfgPipeline.slowBuild goals and trade-offs
  - Jenkinsfile-dynamatrix: add a groovy shebang for highlighters
  - Jenkinsfile-dynamatrix: rephrase some comments and filter bundle names
-



**2.1033 2021-09-14 dtsecon <dimitris.s.economou@gmail.com>**

- docs/nut.dict: update nut.dict
- docs/nut.dict: update nut.dic

**2.1034 2021-09-13 Jim Klimov <jim@jimklimov.com>**

- Jenkinsfile-dynamatrix: only run and withdocs:man on setups that did not yet run a witdocs:all (and are declared capable of man)
- Jenkinsfile-dynamatrix: remove distcheck-light (sort of pointless WRT other scenarios) and withdocs:man (redundant) from "various builds"
- Jenkinsfile-dynamatrix: comment that "default-all-errors" builds do not include docs and distcheck
- Jenkinsfile-dynamatrix: add "default-alldrv:no-distcheck" variant
- ci\_build.sh: add "default-alldrv:no-distcheck" variant
- ci\_build.sh: comment "default-all-errors" builds with varying SSL implementations and refactor into a loop and case Should be helpful for <https://github.com/networkupstools/jenkins-dynamatrix/issues/4> eventually
- ci\_build.sh: comment the case BUILD\_TYPE to maintain easier

**2.1035 2021-09-12 Jim Klimov <jimklimov+nut@gmail.com>**

- Jenkinsfile-dynamatrix: reduce the amount of build combos by careful use of dynamatrixAxesCommonEnv

**2.1036 2021-09-11 Jim Klimov <jimklimov+nut@gmail.com>**

- tests/cpptest.cpp: add an optional verbose mode to list executed test case names
- configure.ac: ci\_build.sh: actively check that cppunit is not just installed, but is usable with current compiler toolkit (we saw linking issues and runtime segfaults with it)
- ci\_build.sh: update a comment for OpenIndiana gcc-4.x vs. libgd
- ci\_build.sh: skip CGI builds for openindiana with gcc-4.x (or older, preemptively) for now
- ci\_build.sh: update constraints for libgd/cgi builds on freebsd
- ci\_build.sh: fix --disable-cppunit (not --without-cppunit)

**2.1037 2021-09-11 Jim Klimov <jim@jimklimov.com>**

- Jenkinsfile-dynamatrix: constrain autotools builds to "fightwarn" branches and PRs

**2.1038 2021-09-01 Arnaud Quette <arnaud.quette@gmail.com>**

- drivers/eaton-pdu-marlin-mib.c, drivers/powerware-mib.c, drivers/snmp-ups.c, drivers/snmp-ups.h: snmp-ups: Add a generic function to convert date (#1078) This provides conversion from US date (mm/dd/yyyy) to ISO Calendar date (yyyy-mm-dd). Also adapt the function callback mechanism to make it more generic, and only char\* to char\* reformatting, beside from the int to char\* value lookup. Co-authored-by: Jim Klimov <jim@jimklimov.com>

**2.1039 2021-08-27 Jim Klimov <jim@jimklimov.com>**

- docs/config-prereqs.txt: note caveats about installing cppunit and gcc-4.4.4 on OpenIndiana

**2.1040 2021-08-23 Arnaud Quette <ArnaudQuette@eaton.com>**

- docs/nut-names.txt: Complete the date standardization proposal for time

**2.1041 2021-08-20 Arnaud Quette <ArnaudQuette@eaton.com>**

- docs/nut-names.txt: Propose to express dates using ISO 8601 when possible

**2.1042 2021-08-19 Stephan Blecher <\_github@blecher.at>**

- drivers/legrand-hid.c: issue-616: legrand 600 fix input voltage

**2.1043 2021-08-18 root <root@proxima2.blecher.at>**

- scripts/upower/95-upower-hid.rules: legrand hid rules update

**2.1044 2021-08-12 Arnaud Quette <arnaud.quette@gmail.com>**

- drivers/mge-xml.c: netxml-ups: fix for erroneous battery info (MGEXML/0.30) (#1069) Some battery related information were wrongly using output information
- docs/nut-names.txt: RFC: clarify and complete battery dates (#1063) The existing battery.date means the installation or last replacement date, as it seems to be implemented by various drivers. Add an additional battery.date.maintenance for the next replacement or maintenance date
- docs/nut-names.txt: Extend battery information collection (#1062)
- RFC: Add battery.capacity.nominal \* RFC: add Li-ion battery cell information \* RFC: Add battery.status \* Clarify Li-ion battery cell information Mention that min/max cell voltage and temperature are observed values, not settings
- docs/nut-names.txt: RFC: add new variable battery.packs.external (#1060) \* RFC: add new variable battery.packs.external \* Improve wording, as per Charles Lepple feedback \* Improve example values, which can or not be zero-padded

**2.1045 2021-08-11 Jim Klimov <jim@jimklimov.com>**

- Jenkinsfile-dynamatrix: revise use of requiredNodelabels/excludedNodelabels, and reset them to surely delete any cached values in the reusable dynamatrix object
- Jenkinsfile-dynamatrix: keep docs builds to the standard set of builders (nut-builder not doc-builder)

**2.1046 2021-08-10 Jim Klimov <jim@jimklimov.com>**

- Jenkinsfile-dynamatrix: use a custom-named dynacfgPipeline.stashnameSrc
  - Jenkinsfile-dynamatrix: neuter the example buildCommit
  - Jenkinsfile-dynamatrix: Revert "Jenkinsfile-dynamatrix: list the custom commits built on new NUT CI for initial history" This reverts commit c9b5c870ac6834f16ebecb5334ac178de2d03d3d. Have that list in history but do not clutter live version.
  - Jenkinsfile-dynamatrix: list the custom commits built on new NUT CI for initial history
  - Jenkinsfile-dynamatrix: revise docs-all build spec
  - Jenkinsfile-dynamatrix: modernize example for custom replayed builds
-

**2.1047 2021-08-07 Jim Klimov <jim@jimklimov.com>**

- docs/config-prereqs.txt: suggest installing valgrind where available

**2.1048 2021-08-04 Jim Klimov <jim@jimklimov.com>**

- docs/config-prereqs.txt: suggest installing source-highlight where available
- ci\_build.sh: double-quote path var expansions
- ci\_build.sh: detect build agent capabilities for Jenkins builds with NUT dynaMatrix config
- ci\_build.sh: abstract from TRAVIS\_OS\_NAME to CI\_OS\_NAME and set one for Jenkins builds with NUT dynaMatrix config

**2.1049 2021-08-03 Jim Klimov <jimklimov@gmail.com>**

- configure.ac: hack around libtool when building with custom bitness

**2.1050 2021-08-03 Jim Klimov <jim@jimklimov.com>**

- clients/nutclient.h, clients/nutclientmem.cpp, clients/nutclientmem.h: clients/nutclient.h \+ nutclientmem.h/.cpp: add NUT\_UNUSED where needed
  - drivers/libshut.h: define the Device field recently added to USBDevice\_t
  - drivers/usbhid-ups.c: initialize the recently added USBDevice\_t Device field
  - drivers/nutdrv\_qx\_masterguard.c: fix the switch-case fallthrough that should not be (the case of "s" is handled lower in the routine, so instant return is not logical)
  - drivers/nutdrv\_qx\_masterguard.c: complete the item\_t initializers
  - drivers/nutdrv\_qx\_masterguard.c: be explicit about NUT\_UNUSED\_VARIABLEs
  - docs/nut.dict: docs/config-prereqs.txt: list prerequisites for at least a minimal build in OmniOS CE - update spellchecker
  - docs/config-prereqs.txt: list prerequisites for at least a minimal build in OmniOS CE
  - docs/config-prereqs.txt: document libtool as a prerequisite
  - Jenkinsfile-dynamatrix: define autotools-based distcheck for NUT
  - Jenkinsfile-dynamatrix: define autotools-based distcheck for NUT
  - Jenkinsfile-dynamatrix: explicitly exclude openindiana from build scenario with all docs types
  - Jenkinsfile-dynamatrix: typo fix (require\*d\*Nodelabels after upstream refactor)
  - m4/nut\_compiler\_family.m4: do not pass "-Wno-unknown-warning" to GCC
  - m4/nut\_check\_libavahi.m4: PoC enable avahi build in FreeBSD - rearrange
-

**2.1051 2021-08-02 Jim Klimov <jim@jimklimov.com>**

- docs/config-prereqs.txt: revise installation of supported shell interpreters
- docs/config-prereqs.txt: add en-aspell for freebsd profile
- Jenkinsfile-dynamatrix: Revert "Jenkinsfile-dynamatrix: try to synchronize cloning of dsbcClone\+stageNameClone" This reverts commit 2d477fac1c67f7a8477c550f1e5a638e533ab2ad : "synchronized" is not supported for Jenkins Groovy CPS
- Jenkinsfile-dynamatrix: try to synchronize cloning of dsbcClone\+stageNameClone
- Jenkinsfile-dynamatrix: define dsbcClone\+stageNameClone closer to start of closure to get the correct copy ASAP
- Jenkinsfile-dynamatrix: add SERVICE\_FRAMEWORK="selftest" to shellcheck-nde (equivalent)
- scripts/upsdrvsvctnl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in: check for not-supported (t)csch interpreter
- Makefile.am: add SERVICE\_FRAMEWORK="selftest" to shellcheck-nde
- Makefile.am: add shellcheck-nde
- Makefile.am: fix shellcheck (not all OSes serve /bin/bash at that pathname)

**2.1052 2021-08-01 Jim Klimov <jim@jimklimov.com>**

- docs/Makefile.am, docs/config-prereqs.txt, docs/nut.dict, docs/packager-guide.txt, docs/user-manual.txt: Introduce docs/config-prereqs.txt and spellcheck for it
- Jenkinsfile-dynamatrix: Introduce Jenkinsfile-dynamatrix

**2.1053 2021-07-31 Jim Klimov <jimklimov+nut@gmail.com>**

- m4/nut\_check\_libavahi.m4: PoC enable avahi build in FreeBSD
- m4/nut\_check\_libneon.m4: FreeBSD installs stuff under /usr/local

**2.1054 2021-07-28 Jim Klimov <jim@jimklimov.com>**

- ci\_build.sh: report CONFIGURING NUT in a way friendlier for copy-paste
- configure.ac, m4/nut\_compiler\_family.m4: configure.ac \+ m4/nut\_compiler\_family.m4: introduce NUT\_COMPILER\_FAMILY\_FLAGS to propagate -Wno-unknown-warning(-option) before any pkgconfig
- docs/man/Makefile.am: Fix check-man-txt to also run from separate build dirs
- ci\_build.sh: do not make TOO MUCH noise when dumping config.log
- ci\_build.sh: set DISTCHECK\_FLAGS in "default-tgt:\*" handling too
- data/driver.list.in: list Ippon Back Comfo Pro II 650/850/1050 as supported by blazer\_usb [#1035]

**2.1055 2021-07-27 Jim Klimov <jim@jimklimov.com>**

- ci\_build.sh: introduce BUILD\_TYPE=default-withdoc:man (and allow it)
  - .gitignore: GitIgnore CI-generated log files
  - ci\_build.sh: introduce BUILD\_TYPE=default-withdoc:man
  - ci\_build.sh: make sure DISTCHECK\_FLAGS is single-line
  - configure.ac: tell compiler to not choke on unknown options
-

**2.1056 2021-07-26 Jim Klimov <jim@jimklimov.com>**

- ci\_build.sh: parameterize \$MAKE
- ci\_build.sh: try to avoid problems with multi-token CFLAGS etc. when passed from "\${CONFIG\_OPTS[@]}" array into DISTCHECK\_CONFIGURE\_FLAGS string (envvar) - refactor

**2.1057 2021-07-22 Jim Klimov <jim@jimklimov.com>**

- ci\_build.sh: try to avoid problems with multi-token CFLAGS etc. when passed from "\${CONFIG\_OPTS[@]}" array into DISTCHECK\_CONFIGURE\_FLAGS string (envvar)

**2.1058 2021-07-21 dtsecon <dimitris.s.economou@gmail.com>**

- drivers/generic\_modbus.c, drivers/generic\_modbus.h: shutdown configurable repetition with increasing time interval added

**2.1059 2021-07-20 Jim Klimov <jim@jimklimov.com>**

- common/common.c: avoid C++ style comments
- configure.ac: detect if i2c library is usable, and cancel i2c driver build if it is not

**2.1060 2021-07-19 dtsecon <dimitris.s.economou@gmail.com>**

- configure.ac, docs/Makefile.am, docs/man/Makefile.am: fix man pages broken build process

**2.1061 2021-07-16 dtsecon <dimitris.s.economou@gmail.com>**

- docs/man/generic\_modbus.txt: improve man page
- docs/man/Makefile.am, docs/man/generic\_modbus.txt: man page text created, added in build procedure

**2.1062 2021-07-08 dogtopus <dogtopus@users.noreply.github.com>**

- docs/man/genericups.txt, drivers/genericups.h: genericups: Change type 23 to be active low. Seems that typical RS232 transceivers invert the signal automatically anyway, so there's no point of making them active high by default.

**2.1063 2021-07-06 dtsecon <dimitris.s.economou@gmail.com>**

- drivers/generic\_modbus.c, drivers/generic\_modbus.h: fix serial options in modbus\_open
  - drivers/generic\_modbus.c: fix *for* loop initial declarations for compatibility out of C99 mode
  - drivers/Makefile.am: generic\_modbus.h added to Makefile.am
  - drivers/generic\_modbus.c: just one space less
-

**2.1064 2021-07-06 dogtopus <dogtopus@users.noreply.github.com>**

- docs/man/genericups.txt: docs: Document the special line NULL in genericups documentation.
- drivers/genericups.c: genericups: Bump version number.
- docs/contact-closure.txt, docs/man/genericups.txt, drivers/genericups.c, drivers/genericups.h: genericups: Add support for FTTx battery backup. A lot of those "UPSes" use a 4-wire open-drain-like contact closure signaling (dubbed "telemetry interface") to report their status (see [https://dl4jz3rbrsfum.cloudfront.net/documents/CyberPower\\_UM\\_CBN50U48A-1.pdf](https://dl4jz3rbrsfum.cloudfront.net/documents/CyberPower_UM_CBN50U48A-1.pdf) for example). They are sorta compatible with APC 940-0020B/C cables in terms of pin assignments, with extra signals for replace battery and battery missing and lack of shutdown signal. This patch adds a sample device type (23) for this kind of device. It also adds support for the extra signal types (RB for replace battery and BYPASS for disconnected battery) used by these devices, as well as an option to unassign/disable an unused signal in the config file by setting it to NULL. Note that there is no standard cable for this kind of device, so type 23 assumes RS232 control signaling and RTS as the voltage source for input pin pullups.

**2.1065 2021-06-30 Nick Briggs <nicholas.h.briggs@gmail.com>**

- tests/.gitignore, tests/Makefile.am, tests/getvaluetest.c: Create test harness for GetValue() report value extraction (usbhid-ups) Adds source and updates Makefile.am to build tests/getvaluetest, a test harness for the report value extraction function GetValue() in hidparser.c. getvaluetest has some built-in test cases, which are easily extensible, but also accepts a single test specification on the command line to allow for easy experimentation. getvaluetest -h for usage

**2.1066 2021-06-30 Jim Klimov <jim@jimklimov.com>**

- NEWS: mention `experimental.*` namespace
- NEWS: mention that master/slave deprecation did not impact protocol currently
- NEWS: mark libusb-1.0 support in main branch as "expected" currently
- scripts/systemd/nut-driver-enumerator.service.in, scripts/systemd/nut-driver@.service.in, scripts/systemd/nut-monitor.service.in, scripts/systemd/nut-server.service.in: systemd/\*.service(.in): update units with SyslogIdentifier=%N The log identifier should hopefully help make more sense of syslog or journal entries where helper shell script traces might end up.

**2.1067 2021-06-29 Dimitris Economou <dimitris.s.economou@gmail.com>**

- drivers/generic\_modbus.c: minor changes to comply with nut development guidelines
- drivers/generic\_modbus.c: variable `ctx` changed to `mbctx`

**2.1068 2021-06-26 Jim Klimov <jim@jimklimov.com>**

- Makefile.am, configure.ac: configure.ac: follow autotools doc recommendation to automatically update the libtool script if it becomes out-of-date
- configure.ac: `AC_PROG_LIBTOOL` is noisily deprecated since autotools-2.70; `LT_INIT` is the replacement
- m4/nut\_arg\_with.m4: `AC_HELP_STRING` is noisily deprecated since autotools-2.70; `AS_HELP_STRING` is available since 2.59 and we use it already a lot elsewhere

**2.1069 2021-06-25 dtsecon <dimitris.s.economou@gmail.com>**

- drivers/generic\_modbus.c: removing unnecessary code
  - drivers/generic\_modbus.c: `time_ellapsed` fixed
-

**2.1070 2021-06-25 abratichik <alexbratichik@yandex.com>**

- drivers/Makefile.am, drivers/arduino-hid.c, drivers/arduino-hid.h, drivers/usbhid-ups.c, scripts/upower/95-upower-hid.rules: Arduino UPS Support

**2.1071 2021-06-24 dtsecon <dimitris.s.economou@gmail.com>**

- drivers/generic\_modbus.c: minor changes and tidying up
- drivers/generic\_modbus.c: remove unnecessary stuff
- drivers/generic\_modbus.c, drivers/generic\_modbus.h: initial commit of generic\_modbus beta version source files
- drivers/Makefile.am: generic\_modbus sources add in building procedure

**2.1072 2021-06-22 Tom Fifield <tom@tomfifield.net>**

- data/driver.list.in: Opti-UPS PS1500E is supported by blazer\_usb Opti-UPS PS1500E connects via serial over USB, and is supported by the blazer\_usb driver. This patch updates the compatibility list. Manufacturer link: <https://www.opti-ups.com/-index.asp?SCID=SC20060001> Device is automatically detected by nut-scanner > [nutdev1] > driver = "blazer\_usb" > port = "auto" > vendorid = "0665" > productid = "5161" > bus = "001" OB status is correctly detected, and other correct values are displayed when queried: battery.charge: 100 battery.voltage: 27.60 battery.voltage.high: 26.00 battery.voltage.low: 20.80 battery.voltage.nominal: 24.0 device.mfr: device.model: 1500VA device.type: ups driver.name: blazer\_usb driver.parameter.bus: 001 driver.parameter.pollinterval: 2 driver.parameter.port: auto driver.parameter.productid: 5161 driver.parameter.synchronous: no driver.parameter.vendorid: 0665 driver.version: 2.7.4 driver.version.internal: 0.12 input.current.nominal: 13.0 input.frequency: 60.0 input.frequency.nominal: 60 input.voltage: 113.9 input.voltage.fault: 111.4 input.voltage.nominal: 110 output.voltage: 113.3 ups.beeper.status: enabled ups.delay.shutdown: 30 ups.delay.start: 180 ups.firmware: ups.load: 2 ups.mfr: ups.model: 1500VA ups.productid: 5161 ups.status: OL ups.type: offline / line interactive ups.vendorid: 0665

**2.1073 2021-06-18 Scott K Logan <logans@cottsai.net>**

- drivers/tripplite.c: start using the *X* value Relatively ancient documentation seems to suggest that this *firmware checksum* value can be used to indicate the firmware generation as well as the capabilities of the UPS, namely the number of independently controllable plugs.

**2.1074 2021-06-16 Nick Briggs <nicholas.h.briggs@gmail.com>**

- drivers/hidparser.c: Add note regarding sensitivity to 32- vs 64- bit compilation and overflow

**2.1075 2021-06-14 Doug Nazar <nazard@nazar.ca>**

- server/netssl.c: server: Add warning if DISABLE\_WEAK\_SSL is not enabled.
- Makefile.am, conf/Makefile.am, data/Makefile.am, docs/Makefile.am, docs/man/Makefile.am: Fix spellcheck to also run from separate build dirs

**2.1076 2021-06-14 Clappier, Eric <EricClappier@Eaton.com>**

- drivers/powerware-mib.c, drivers/snmp-ups.c: Add missing outlet objects for master

**2.1077 2021-06-12 abratichik <alexbratichik@yandex.com>**

- docs/FAQ.txt, drivers/libusb.c, drivers/libusb.h, drivers/powervar-hid.c: HID-compliant UPS support with interface gt than 0
-

**2.1078 2021-06-12 Jim Klimov <jimklimov@gmail.com>**

- server/netssl.c: Update netssl.c Comment the default value of `disable_weak_ssl` (currently not getting in our way, but can change later)
- server/netssl.c: Update netssl.c Slight pedantic fix for use of NSS VMAJOR/VMINOR macros
- server/conf.c: Update conf.c Comment `parse_boolean()` and add support for "0" and "1" string values there, for good measure
- conf/upsd.conf.sample: Update upsd.conf.sample Mention that `DISABLE_WEAK_SSL` is "currently" disabled by default, hinting that it can become enabled after some releases.
- docs/nut.dict: Update nut.dict Add "TLSv"<number> support in spellchecker

**2.1079 2021-06-12 Jim Klimov <jim@jimklimov.com>**

- docs/nut-names.txt: add the note about RFC Recording Document
- docs/nut-names.txt: reword the intro paragraphs and define the "experimental.\*" namespace
- docs/FAQ.txt: FAQ.txt: make it easier to find suggestions for missing "battery.charge.restart" workarounds

**2.1080 2021-06-11 Doug Nazar <nazard@nazar.ca>**

- conf/upsd.conf.sample, server/conf.c, server/netssl.c, server/netssl.h: server: Add option to disable weak SSL protocols/ciphers.

**2.1081 2021-06-02 Nick Briggs <nicholas.h.briggs@gmail.com>**

- drivers/hidparser.c: Fix `GetValue()` to correctly extract values from a report when compiled in LP64 mode Changes the strategy for removing potential garbage bits from values extracted from a report. Use the `LogMin` and `LogMax` fields to drive which bits are meaningful but avoid confusion when, for example, given a range of -1..2147483647

**2.1082 2021-05-30 Jim Klimov <jim@jimklimov.com>**

- configure.ac: bugfix - populate `systemdtmpfilesdir` in its option, not `systemdshutdowndir`
- configure.ac: do not make noise with yet empty `systemdtmpfilesdir`
- configure.ac: process other values for `systemdshutdowndir` option
- configure.ac: just in case, double-quote to single-tokenize detected systemd related options
- configure.ac: update comments for systemd related options

**2.1083 2021-05-28 Jim Klimov <jim@jimklimov.com>**

- docs/nut.dict: nut.dict: add new words for nut-website
  - configure.ac: improve reporting of systemd options processing
  - autogen.sh, configure.ac, scripts/systemd/.gitignore, scripts/systemd/nut-common.tmpfiles.in: configure.ac: generate scripts/systemd/common.in based on current config
  - configure.ac: typo fix in comment
  - Makefile.am, configure.ac, docs/configure.txt, docs/nut.dict, scripts/systemd/.gitignore, scripts/systemd/Makefile.am, scripts/systemd/common.tmpfiles.in: [Issue #1030] Deliver systemd-tmpfiles config to pre-create runtime locations
-



**2.1084 2021-05-25 Jim Klimov <jim@jimklimov.com>**

- NEWS: added nutdrv\_qx "phoenixtec" subdriver in NUT-2.7.5
- docs/images/ci/fosshost.org\_Host\_Light\_309px.png, docs/images/ci/fosshost.org\_Host\_Light\_38px.png: docs/image/ci: add more Fosshost logos tuned to be readable at smaller height

**2.1085 2021-05-24 Jim Klimov <jimklimov@gmail.com>**

- docs/nut.dict: Update nut.dict Update dict for [PR #975](#)
- docs/man/nutdrv\_qx.txt: Update nutdrv\_qx.txt Our accepted terminology is for multiple "UPSes" not "UPSen", however questionable the language might be
- drivers/nutdrv\_qx.c: Update nutdrv\_qx.c Bump version due to addition of phoenixtec\_command()
- drivers/nutdrv\_qx.c: Update nutdrv\_qx.c Pre-initialize "e = NULL" in phoenixtec\_command(), we do not set it from memchr() later in all cases.
- drivers/nutdrv\_qx\_masterguard.c: Update nutdrv\_qx\_masterguard.c Add #include <stddef.h>
- drivers/powerpanel.h: Update powerpanel.h Define a subdriver\_t for driver version (modifiable) vs type (bin/txt)
- drivers/powerp-txt.c: Update powerp-txt.c Fix subdriver type vs subdriver version
- drivers/powerp-bin.c: Update powerp-bin.c Track subdriver version
- drivers/powerp-txt.c: Update powerp-txt.c Introduce versioning
- drivers/cyberpower-mib.c: Update cyberpower-mib.c Update reported driver version after the bump
- drivers/cyberpower-mib.c: Update cyberpower-mib.c Handle "battery.voltage" and "battery.current" readings for different MIB revisions
- drivers/nutdrv\_qx.c: Update nutdrv\_qx.c Formatting and slight rewording of a comment

**2.1086 2021-05-24 Jim Klimov <jim@jimklimov.com>**

- NEWS: added powerpanel driver support for CyberPower OR1500LCDRTXL2U in NUT-2.7.5
- NEWS: added TcpClient C++ testing mock for NUT-2.7.5
- NEWS: improved USB HID parsing for NUT-2.7.5
- NEWS: improved USB device matching for NUT-2.7.5
- NEWS: microsol-apc added for NUT-2.7.5
- lib/.gitignore: GitIgnore generated lib/libnutclientstub.pc
- drivers/usb-common.h: better comment "the 5 pieces of information by which a USB device identifies itself"
- drivers/usb-common.h: move the recently added USBDevice\_t Device field to the end, for a bit of cross-version binary compatibility
- docs/man/blazer-common.txt, docs/man/nutdrv\_qx.txt, docs/man/tripplite\_usb.txt, docs/man/usbhid-ups.txt: Docs: rephrase Note for "device" option in USB drivers

**2.1087 2021-05-20 Denis Yurin <d.jurin@gmail.com>**

- drivers/powercom-hid.c: add temperature readings for Powercom MRT-3000 add temperature readings support for Powercom MRT-3000
-

**2.1088 2021-05-18 Clappier, Eric <EricClappier@Eaton.com>**

- tests/nutclienttest.cpp: Fix typo

**2.1089 2021-05-18 Alexey Kazancev <ruskazancev@gmail.com>**

- drivers/nutdrv\_qx.c: nutdrv\_qx.c: bump version to 0.31
- drivers/nutdrv\_qx.c: nutdrv\_qx.c: add batt.volt.act validation Some UPS return zero batt voltage after communication error. This validation must fix wrong runtime calculation.
- drivers/nutdrv\_qx.c: nutdrv\_qx.c: fix snr\_command communication error in protocol matching phase.

**2.1090 2021-05-17 Clappier, Eric <EricClappier@Eaton.com>**

- clients/nutclientmem.cpp, clients/nutclientmem.h, tests/nutclienttest.cpp: Take into account pull request remarks

**2.1091 2021-05-07 Clappier, Eric <EricClappier@Eaton.com>**

- drivers/bcmxcp\_ser.c: Fix coverity test issue
- tests/nutclienttest.cpp: Try fixing coverity test issue
- clients/Makefile.am, configure.ac, lib/Makefile.am, lib/libnutclientstub.pc.in, tests/Makefile.am: Separate lib for stub

**2.1092 2021-05-06 Alexey Kazancev <ruskazancev@gmail.com>**

- drivers/nutdrv\_qx.c: nutdrv\_qx.c: bump version to 0.30

**2.1093 2021-05-05 Clappier, Eric <EricClappier@Eaton.com>**

- tests/nutclienttest.cpp: Add tests in cppunit
- clients/Makefile.am: Fix missing header

**2.1094 2021-05-04 Clappier, Eric <EricClappier@Eaton.com>**

- clients/Makefile.am, clients/{nutclientmock.cpp ⇒ nutclientmem.cpp}, clients/{nutclientmock.h ⇒ nutclientmem.h}, tests/nutclienttest.cpp: Rename class Fix cppunit test Add typedef for map
- clients/nutclientmock.cpp: Fix indentation
- clients/Makefile.am, clients/nutclient.cpp, clients/nutclient.h, clients/nutclientmock.cpp, clients/nutclientmock.h: Separate NutClientMock class
- clients/nutclient.cpp, clients/nutclient.h, tests/nutclienttest.cpp: Add mock for TcpClient

**2.1095 2021-04-26 Jim Klimov <jim@jimklimov.com>**

- docs/man/dummy-ups.txt: dummy-ups.txt: mention the DDL and nut-ddl-dump.sh
  - drivers/Makefile.am: fix truncated comment Text originates from SVN-Git migration in e8e716e0598158f705e060c72f8f4b0444fbcd0
-

**2.1096 2021-04-26 Alexey Kazancev <[ruskazancev@gmail.com](mailto:ruskazancev@gmail.com)>**

- drivers/nutdrv\_qx.c: nutdrv\_qx.c: add correction of runtime estimation

**2.1097 2021-04-23 Jim Klimov <[jimklimov@gmail.com](mailto:jimklimov@gmail.com)>**

- drivers/ever-hid.c: Update ever-hid.c Make and comment the macro for ST Microelectronics vendor id (to generate udev data, etc. properly)
- drivers/ever-hid.c: Update ever-hid.c Lowercase the hex in vendor ID macro, for consistency

**2.1098 2021-04-23 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>**

- docs/nut.dict: docs/nut.dict \+ NEWS: fix both to pass spellcheck
- NEWS, docs/nut.dict: docs/nut.dict \+ NEWS: fix both to pass spellcheck
- drivers/nutdrv\_qx.c: fabula\_hunnox\_subdriver(): annotate NUT\_UNUSED\_VARIABLE(device) arg
- drivers/delta\_ups-hid.c: fix initialization of delta\_ups\_type\_info[]
- drivers/delta\_ups-hid.c: fix initialization of delta\_ups\_type\_info[]
- drivers/nutdrv\_qx.c: fabula\_hunnox\_subdriver(): annotate NUT\_UNUSED\_VARIABLE(device) arg
- drivers/usbhid-ups.c: order includes and subdrivers alphabetically
- drivers/usbhid-ups.c: order includes and subdrivers alphabetically
- clients/nutclient.cpp, clients/nutclient.h: clients/nutclient.{h,cpp}: explicitly request assignment operator generation for exception classes
- drivers/bestfortress.c: fix back setparam() arg type
- drivers/delta\_ups-mib.c: delta-mib.c: rename onbatt\_info lookup table in commented-away code sample (and match naming pattern with other tables)
- drivers/delta\_ups-hid.c: typo in comment
- drivers/nutdrv\_qx.c: comment that Vendor ID 0x0483 is from ST Microelectronics

**2.1099 2021-04-22 Nick Briggs <[nicholas.h.briggs@gmail.com](mailto:nicholas.h.briggs@gmail.com)>**

- drivers/hidparser.c: correct *for* loop initial declarations are only allowed in C99 or C11 mode
- drivers/hidparser.c: Extract values in HIDParse correctly when compiled in 64-bit (LP64) mode Reworks the conversion of bytes in little-endian order to host order to operate independently of the sizeof(long) and the byte-order of the host system. The extracted value is stored as uint32\_t as the code already performs casts to signed/unsigned of varying sizes as appropriate to the context of use.

**2.1100 2021-04-21 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>**

- NEWS: Add 2.7.5 support for Tripplite AVR750U
- drivers/delta\_ups-hid.c: drivers/delta\_ups-hid.c/.h: sync [PR #807](#) code with master branch: sync polling frequencies
- drivers/delta\_ups-hid.c: drivers/delta\_ups-hid.c/.h: sync [PR #807](#) code with master branch: remove (read-only) mappings for ups.delay\* in favor of same points polled for ups.timer\*

- drivers/delta\_ups-hid.c: drivers/delta\_ups-hid.c/.h: sync [PR #807](#) code with master branch: comment away ups.mfr/model/serial setting per PR comments
- drivers/delta\_ups-hid.c: drivers/delta\_ups-hid.c/.h: sync [PR #807](#) code with master branch: set voltage/current/frequency precision to %.1f same for all entries
- drivers/delta\_ups-hid.c: drivers/delta\_ups-hid.c/.h: sync [PR #807](#) code with master branch: set battery.charge\* precision to %.0f same for all entries
- drivers/delta\_ups-hid.c: drivers/delta\_ups-hid.c/.h: sync [PR #807](#) code with master branch: import delta\_ups\_hid2nut[] entries "as is"
- drivers/delta\_ups-hid.c: drivers/delta\_ups-hid.c/.h: sync [PR #807](#) code with master branch: import Helper lookup tables and mapping functions from master
- drivers/delta\_ups-hid.c: drivers/delta\_ups-hid.c/.h: sync [PR #807](#) code with master branch: change delta\_ups\_hid2nut[] content order by names to be same as in master
- drivers/delta\_ups-hid.c: drivers/delta\_ups-hid.c/.h: sync [PR #807](#) code with master branch: import named delta\_ups\_usage\_lkp[] content from master
- drivers/delta\_ups-hid.c: drivers/delta\_ups-hid.c/.h: sync [PR #807](#) code with master branch: import delta\_ups\_format\_model() content from master
- drivers/delta\_ups-hid.c: drivers/delta\_ups-hid.c/.h: sync [PR #807](#) code with master branch: move delta\_ups\_format\_model() to same position as in master
- drivers/delta\_ups-hid.c: drivers/delta\_ups-hid.c/.h: sync [PR #807](#) code with master branch: indentations in delta\_ups\_claim()
- drivers/delta\_ups-hid.c: drivers/delta\_ups-hid.c/.h: sync [PR #807](#) code with master branch: indentations in delta\_ups\_hid2nut[]
- drivers/delta\_ups-hid.c: drivers/delta\_ups-hid.c/.h: sync [PR #807](#) code with master branch: indentations in delta\_ups\_usage\_lkp[]
- drivers/delta\_ups-hid.c, drivers/delta\_ups-hid.h: drivers/delta\_ups-hid.c/.h: sync [PR #807](#) code with master branch: rename delta ⇒ delta\_ups, sync comments
- drivers/Makefile.am, drivers/{delta-hid.c ⇒ delta\_ups-hid.c}, drivers/{delta-hid.h ⇒ delta\_ups-hid.h}, drivers/usbhid-ups.c, scripts/upower/95-upower-hid.rules: Rename delta-hid.c/.h to delta\_ups-hid.c/.h and sync vendor label for USB [[#807](#)]

### 2.1101 2021-04-21 Edgar Fuß <[ef@math.uni-bonn.de](mailto:ef@math.uni-bonn.de)>

- drivers/nutdrv\_qx.c: Correct format string size\_t is unsigned, so use %zu (not %zd) in upsdebug() format string.
- drivers/nutdrv\_qx.c: Remove vis-dependent debugging code Remove (level 4) debugging code in the phoenixtex/masterguard USB subdriver that depends on the BSD strvis() family for visual string formatting.

### 2.1102 2021-04-20 Ygor Amadeo Sartori Regados <[ygorre@tutanota.com](mailto:ygorre@tutanota.com)>

- docs/man/microsol-apc.txt: Man page compilation error fixes
  - docs/man/Makefile.am, docs/man/microsol-apc.txt: Added man page
  - drivers/microsol-apc.c, drivers/microsol-common.h: Fix: wrong operator and unused function
  - drivers/microsol-apc.c, drivers/microsol-apc.h: Fixed driver name
-

**2.1103 2021-04-20 Jim Klimov <jimklimov@gmail.com>**

- drivers/delta-hid.c: Update delta-hid.c Sync the vendor-name comment (for udev generation among others) with another Delta HID driver merged to master recently.
- docs/nut.dict: Update nut.dict Updated for [PR #994](#)
- drivers/microsol-apc.c: Update microsol-apc.c In upsdv\_info, split contributors one per line for better source readability
- docs/nut.dict: Update nut.dict Some more keywords to the dictionary from [PR #638](#)

**2.1104 2021-04-20 Jim Klimov <jim@jimklimov.com>**

- NEWS: List more achievements of 2.7.5
- drivers/delta\_ups-hid.c, scripts/upower/95-upower-hid.rules: 95-upower-hid.rules: regenerate for idVendor=05dd (Delta UPS)
- docs/documentation.txt: add a section on reporting Data dumps for the DDL
- docs/man/nutdrv\_qx.txt: fix copy-paste typo
- drivers/nutdrv\_qx.c: fix back the name for "fabula\_hunnox\_subdriver" (USB protocol subdriver vs. "hunnox\_subdriver" for device data mapping)
- drivers/nutdrv\_qx.c: bump core DRIVER\_VERSION to reflect changes from [PR #638](#) for "hunnox" support
- docs/man/nutdrv\_qx.txt, drivers/nutdrv\_qx.c: drivers/nutdrv\_qx.c: simplify new subdriver/command naming from "fabula-hunnox" to "hunnox"
- drivers/nutdrv\_qx.c: restore indentation with TABs
- drivers/nutdrv\_qx.c: fabula\_command\_hunnox(): comment about truncating the buflen to 102 bytes
- drivers/nutdrv\_qx.c: fabula\_command\_hunnox(): comment away scoping for (and use of) "hunnox\_patch" leaving the markers in comments for refactoring
- drivers/nutdrv\_qx.c: comment that fabula\_hunnox\_subdriver was reported to support more than Hunnox branded devices
- drivers/nutdrv\_qx.c: fabula\_command\_hunnox(): restore originally PRed choice of usb\_get\_string{,\_simple}() based on langid\_fix alone
- drivers/nutdrv\_qx.c: separate fabula\_command\_hunnox() from fabula\_command() without using a mixed routine, to ensure no impact on currently supported devices
- docs/nut.dict: typo fix

**2.1105 2021-04-19 Jim Klimov <jimklimov@gmail.com>**

- docs/nut.dict: Update nut.dict Update dictionary for Hunnox [PR #638](#)
  - docs/man/nutdrv\_qx.txt: Update nutdrv\_qx.txt Basically mention updates from Hunnox subdriver and protocol addition ([PR #638](#)).
  - drivers/nutdrv\_qx.c: Update nutdrv\_qx.c Err on the safer side of changing behavior for non-hunnox device support, limit the applicability of langid\_fix (per [PR #638](#) review cautionary comments). Maybe the proposed original change did apply to other devices that support the fix-up, but that should be evaluated separately and this new constraint reversed if needed.
  - drivers/nutdrv\_qx\_hunnox.c: Update nutdrv\_qx\_hunnox.c Updated file heading
  - drivers/nutdrv\_qx\_hunnox.h: Update nutdrv\_qx\_hunnox.h Updated file heading
-

**2.1106 2021-04-10 Jim Klimov <jim@jimklimov.com>**

- docs/images/advanced.png, docs/images/bizarre.png: Vox populi: replace master by primary and slave by secondary in documentation images [#840]

**2.1107 2021-04-09 Jim Klimov <jimklimov@gmail.com>**

- docs/nut.dict: Update nut.dict Missed a couple of new dictionary words
- docs/nut.dict: Update nut.dict Added "snr" and "SNR" to spellchecker dictionary

**2.1108 2021-04-09 Jim Klimov <jim@jimklimov.com>**

- drivers/metasys.c: fix SIZE\_MAX comparison
- drivers/metasys.c: fix %zd printing of ssize\_t res
- docs/images/ci/fosshost.org\_Host\_Dark\_56px.png, docs/images/ci/jenkins-nut-large-256px.png, docs/images/ci/jenkins-nut-large-squared.png, docs/images/ci/jenkins-nut-large.pdn, docs/images/ci/jenkins-nut-large.png, docs/images/ci/jenkins-nut-small-256px.png, docs/images/ci/jenkins-nut-small.pdn, docs/images/ci/jenkins-nut-small.png, docs/images/ci/jenkins-nut-squared.png, docs/images/ci/jenkins-nut-transparent-bg-40px.png, docs/images/ci/jenkins-nut-transparent-bg.png, docs/images/ci/jenkins-nut.css, docs/images/ci/jenkins-nut.png, docs/images/ci/jenkins-nut.txt: Add image and CSS resources used in new Jenkins CI [#869]

**2.1109 2021-04-09 Alexey Kazancev <ruskazancev@gmail.com>**

- drivers/nutdrv\_qx.c: add overflows protection for snr subdriver
- docs/acknowledgements.txt: add NAG at manufacturer list
- data/driver.list.in: add various SNR-UPS-LID-XXXX UPSes supported by nutdrv\_qx Protocol: *megatec* USB subdriver: *snr*
- docs/man/nutdrv\_qx.txt: update man page for new *snr* USB subdriver
- drivers/nutdrv\_qx.c: add new *snr* USB subdriver to support SNR-UPS-LID units

**2.1110 2021-04-08 Jim Klimov <jim@jimklimov.com>**

- docs/man/Makefile.am: Update Makefile.am Beside exactly "troff" some systems have other "\*roff" family tools and formats

**2.1111 2021-04-07 Jim Klimov <jimklimov@gmail.com>**

- configure.ac: satisfy both builders that have pkg-config installed and those who do not
- configure.ac: avoid syntax errors if pkg-config is not installed

**2.1112 2021-04-06 Aaron Thompson <dev@aaront.org>**

- drivers/powercom.c: Fix a small error in output voltage for KIN models.
-

**2.1113 2021-03-31 Jim Klimov <jim@jimklimov.com>**

- drivers/metasys.c: protect failsafe logic from compiler warnings with pragmas
- drivers/metasys.c: upsdv\_initinfo(): pedantic and stylistic fixes
- drivers/metasys.c: upsdv\_initinfo(): sanity-check that reply was big enough to have a serial number, and then cast for memcpy()
- drivers/metasys.c: get\_answer(): rectify var types to avoid signedness and range warnings
- drivers/metasys.c: fix arg type for send\_read\_command() to avoid signedness mismatches
- drivers/metasys.c: refactor a get\_word\_float() to simplify code
- drivers/metasys.c: fix fixed-width integers for get\_word()/get\_long() or cast meaningfully where needed
- drivers/bcmxcp.c: cast the bytes when constructing "cbuf[]"s element by element
- drivers/bcmxcp.c: instcmd(): cast use of sddelay to avoid signedness warnings
- drivers/bcmxcp.c: upsdv\_initinfo(): buf is size\_t by usage
- drivers/bcmxcp.c: upsdv\_initinfo(): fix atoi() of unsigned value for shutdown\_delay
- drivers/bcmxcp.c: fix fixed-width integers for get\_word()/get\_long()/init\_outlet() or cast meaningfully where needed
- drivers/al175.c: avoid implicit conversion of byte to int during bit-shifting
- drivers/dstate.c: protect failsafe logic from compiler warnings with pragmas

**2.1114 2021-03-30 Jim Klimov <jim@jimklimov.com>**

- drivers/al175.c: avoid implicit tflag\_t signedness conversion
  - drivers/al175.c: avoid implicit char/byte conversion
  - drivers/al175.c: avoid implicit long/unsigned long conversion, and fix formatting nearby
  - drivers/al175.c: align arguments to wrappers of al175\_do() with the uint16\_t type it accepts (avoid variable-width signed int)
  - drivers/libusb.c: mark hid\_rep\_index static (not externalized)
  - configure.ac: nut\_enable\_warnings: clang presets should let "-Wdocumentation" slide: NUT does not use it now, and third-party headers are what they are
  - drivers/dstate.c: alarm\_set(): stretch slightly absurd ways to avoid overflow and fix signed/unsigned mismatch (follow up for #986)
  - configure.ac: add --enable-cppunit to allow disabling it even if deemed supported by compiler Practice shows that libcppunit.so may be linked against a different compiler version and/or libc than the one used for current NUT build. While formal support checked by the script works, practical build fails.
  - NEWS: Reflect terminology change for upsmon
-

**2.1115 2021-03-29 Jim Klimov <jim@jimklimov.com>**

- clients/upsmon.c: rename static functions slavesync() ⇒ sync\_secondaries() and checkmaster() ⇒ apply\_for\_primary() and document them better
- README, clients/nutclient.cpp, clients/nutclient.h, clients/upsmon.c, clients/upsmon.h, conf/ups.conf.sample, conf/upsd.users.sample, conf/upsmon.conf.sample.in, docs/config-notes.txt, docs/design.txt, docs/features.txt, docs/history.txt, docs/man/clone.txt, docs/man/genericups.txt, docs/man/libnutclient\_misc.txt, docs/man/nut.conf.txt, docs/man/nutdrv\_atcl\_usb.txt, docs/man/richcomm\_usb.txt, docs/man/upsd.txt, docs/man/upsd.users.txt, docs/man/upsmon.conf.txt, docs/man/upsmon.txt, docs/net-protocol.txt, docs/new-drivers.txt, docs/scheduling.txt, docs/security.txt, drivers/optiups.c, scripts/augeas/README, scripts/augeas/nutupsdusers.aug.in, scripts/augeas/tests/test\_nut.aug, scripts/perl/Nut.pm, scripts/python/module/PyNUT.py, server/netcmds.h, server/netuser.c, server/netuser.h, server/user.c: Vox populi: replace manager/master by primary and subordinate/slave by secondary
- scripts/python/app/README: typo fix
- docs/man/libnutclient\_misc.txt: fix English wording a bit
- docs/nut.dict: update word-count after large docs update

**2.1116 2021-03-27 orbea <orbea@riseup.net>**

- drivers/Makefile.am: drivers: Fix undefined references with slibtool.

**2.1117 2021-03-26 Jim Klimov <jimklimov@gmail.com>**

- tools/nut-snmppinfo.py: Update nut-snmppinfo.py Also handle the // comments same way as /\* . . .

**2.1118 2021-03-26 Arnaud Quette <ArnaudQuette@eaton.com>**

- scripts/upower/95-upower-hid.rules: Revert "95-upower-hid.rules script updated" This reverts commit 262c23c6b8f1368165c75a0df3

**2.1119 2021-03-25 Arnaud Quette <ArnaudQuette@eaton.com>**

- tools/nut-snmppinfo.py: nut-scanner: improve SNMP extractor script Also remove EOL comments

**2.1120 2021-03-24 Jim Klimov <jim@jimklimov.com>**

- drivers/bestups.c, drivers/blazer.c, drivers/blazer.h, drivers/blazer\_ser.c, drivers/blazer\_usb.c: bestups, blazer\* driver sources: add obsolescence notices on top, in favor of nutdrv\_qx drivers
- tools/nut-usbinfo.pl: allow to trace USB driver conflicts (e.g. obsoleted and new handlers of same vendor/product IDs)

**2.1121 2021-03-23 Ygor Amadeo Sartori Regados <ygorre@tutanota.com>**

- drivers/microsol-apc.c, drivers/microsol-apc.h, drivers/microsol-common.c, drivers/microsol-common.h: Bug fix: battery charge calculation
- drivers/microsol-common.c: Bug fix: Handle packet boundary desynchronization

**2.1122 2021-03-23 Jim Klimov <jim@jimklimov.com>**

- ci\_build.sh: make GitIgnores failure fatal (and report what the difference is, for tracked and regenerated files)
  - tests/.gitignore: GitIgnore tests/nutlogtest binary
  - ci\_build.sh: make GitIgnores failure fatal
-



**2.1123 2021-03-23 Degott, Francois Regis <FrancoisRegisDegott@eaton.com>**

- scripts/upower/95-upower-hid.rules: 95-upower-hid.rules script updated
- scripts/upower/95-upower-hid.rules: 95-upower-hid.rules script updated
- drivers/Makefile.am, drivers/eaton-ats16-nm2-mib.c, .../{eaton-ats16-mib.h ⇒ eaton-ats16-nm2-mib.h}, .../{eaton-ats16-mib.c ⇒ eaton-ats16-nmc-mib.c}, drivers/eaton-ats16-nmc-mib.h, drivers/snmp-ups.c: improve support of EATON ATS16 NM-C/NM2

**2.1124 2021-03-21 Ygor Amadeo Sartori Regados <ygorre@tutanota.com>**

- drivers/microsol-apc.c: Fixed missing calculation part for BZ1500 Bug identified with data provided on [issue #697](#)
- drivers/microsol-common.c: CI fix: C89 compilation fixed
- drivers/Makefile.am: Missing header fixed
- drivers/Makefile.am: CI error fix: missing header file

**2.1125 2021-03-19 Ygor Amadeo Sartori Regados <ygorre@tutanota.com>**

- drivers/microsol-common.c, drivers/microsol-common.h: Fixed LGTM alert about localtime\_r Also passed microsol-common.c through indent
- drivers/Makefile.am, drivers/microsol-apc.c, drivers/microsol-apc.h, drivers/microsol-common.c, drivers/microsol-common.h: New driver: microsol-apc Derived from solis driver, for newer APC Back-UPS BR hardware. Support added for APC Back-UPS BZ1500, BZ2200BI and BZ2200I. Tested on BZ2200BI. Created common file that may be used on solis as well.

**2.1126 2021-03-14 JungEon Kim <me@jungeon.kim>**

- data/driver.list.in: Add Delta UPS Amplon R Series in drivers.list

**2.1127 2021-03-14 Jim Klimov <jim@jimklimov.com>**

- drivers/dstate.c: alarm\_set(): at least log the truncated buf if it does not fit into dstate field

**2.1128 2021-03-13 JungEon Kim <me@jungeon.kim>**

- drivers/Makefile.am, drivers/delta\_ups-hid.c, drivers/delta\_ups-hid.h, drivers/usbhid-ups.c: delta\_ups-hid: Add support for Delta UPS Amplon R Series

**2.1129 2021-03-13 Jim Klimov <jim@jimklimov.com>**

- docs/developers.txt: replace "master" where it is easy, and update some recommendations
  - clients/upsmon.c: comment that also several NUT drivers can directly set FSD flag propagated from the smarter power devices
  - docs/security.txt: extend the Firewall section for more considerations
  - docs/man/upsmon.txt: suggestions for experiments about timing the shutdown vs. dummy SHUTDOWNCMD to check the skeleton logic
  - docs/man/upsmon.conf.txt: extend the example for "bigserver" with manager vs subordinate upsmon's
  - docs/history.txt: reflect that slave/master terms were deprecated
-

- README: Make note of UPSes which allow multiple managerial accesses
- clients/nutclient.cpp, clients/nutclient.h, clients/upsmon.c, docs/net-protocol.txt, scripts/perl/Nut.pm, scripts/python/module/PyNUT.p, server/netcmds.h, server/netuser.c, server/netuser.h, server/user.c: Identify points in source code (and few related docs) for deprecating master/slave terminology
- README, clients/upsmon.c, clients/upsmon.h, conf/ups.conf.sample, conf/upsd.users.sample, conf/upsmon.conf.sample.in, docs/config-notes.txt, docs/design.txt, docs/features.txt, docs/man/clone.txt, docs/man/genericups.txt, docs/man/libnutclient\_misc.txt, docs/man/nut.conf.txt, docs/man/nutdrv\_atcl\_usb.txt, docs/man/richcomm\_usb.txt, docs/man/upsd.txt, docs/man/upsd.users.txt, docs/man/upsmon.conf.txt, docs/man/upsmon.txt, docs/net-protocol.txt, docs/new-drivers.txt, docs/nut.dict, docs/scheduling.txt, docs/security.txt, drivers/optiups.c, scripts/augeas/README, scripts/augeas/nutupsdusers.aug.in, scripts/augeas/tests/test\_nut.aug, scripts/perl/Nut.pm, server/user.c: Update documentation, emitted messages and easy-to-fix code to rename master⇒manager and slave⇒subordinate
- docs/man/upsmon.txt: suggestions for experiments about timing the shutdown vs. dummy SHUTDOWNCMD to check the skeleton logic
- docs/security.txt: extend the Firewall section for more considerations
- docs/security.txt: reword one shade of "master"
- docs/solaris-usb.txt: reword one shade of "master"
- drivers/asem.c: clarify the use of "S" word
- drivers/phoenixcontact\_modbus.c: clarify the use of "S" word
- drivers/nutdrv\_qx.c, drivers/usbhid-ups.c: drivers/nutdrv\_qx.c & usbhid-ups.c: reword "Reference list of. . ."
- clients/upsmon.c, docs/net-protocol.txt: docs/net-protocol.txt \+ upsmon.c: comment that also several NUT drivers can directly set FSD flag propagated from the smarter power devices
- conf/upsmon.conf.sample.in: note that systems should only shutdown when less than MINSUPPLIES PSUs are non-critical
- conf/upsmon.conf.sample.in: note about UPSes with manageable thresholds for critical state
- conf/upsmon.conf.sample.in: note that rack shutdowns can compete for I/O and take longer
- conf/upsmon.conf.sample.in: generalize the example about multi-PSU servers
- docs/config-notes.txt: update the example about multi-PSU servers
- docs/config-notes.txt: note about upsmon with 0 PSUs for just-monitoring
- data/html/header.html.in, docs/cables/apc-rs500-serial.txt, docs/cables/ge-imv-victron.txt, docs/cables/powerware.txt, docs/cables/repotec.txt, docs/cables/sms.txt, docs/man/apcsmart-old.txt, docs/man/apcsmart.txt, docs/man/asem.txt, docs/man/bcmxcp.txt, docs/man/bcmxcp\_usb.txt, docs/man/belkin.txt, docs/man/belkinunv.txt, docs/man/bestfcom.txt, docs/man/bestuferrups.txt, docs/man/bestups.txt, docs/man/everups.txt, docs/man/genericups.txt, docs/man/index.txt, docs/man/libnutclient\_misc.txt, docs/man/libnutclient\_tcp.txt, docs/man/libupsclient-config.txt, docs/man/liebert-esp2.txt, docs/man/metasys.txt, docs/man/mge-shut.txt, docs/man/mge-utalk.txt, docs/man/nut-driver-enumerator.txt, docs/man/nut-ipmipsu.txt, docs/man/nut-scanner.txt, docs/man/nutdrv\_atcl\_usb.txt, docs/man/nutscan\_add\_device\_to\_device.txt, docs/man/nutscan\_add\_option\_to\_device.txt, docs/man/nutscan\_cidr\_to\_ip.txt, docs/man/nutscan\_display\_parsable.txt, docs/man/nutscan\_display\_ups\_conf.txt, docs/man/nutscan\_free.txt, docs/man/nutscan\_get\_serial\_ports\_list.txt, docs/man/nutscan\_init.txt, docs/man/nutscan\_new\_device.txt, docs/man/nutscan\_scan\_av.txt, docs/man/nutscan\_scan\_eaton\_serial.txt, docs/man/nutscan\_scan\_ipmi.txt, docs/man/nutscan\_scan\_nut.txt, docs/man/nutscan\_scan\_s.txt, docs/man/nutscan\_scan\_usb.txt, docs/man/nutscan\_scan\_xml\_http.txt, docs/man/oneac.txt, docs/man/optiups.txt, docs/man/phoenix-contact\_modbus.txt, docs/man/powercom.txt, docs/man/powerman-pdu.txt, docs/man/rhino.txt, docs/man/richcomm\_usb.txt, docs/man/riello\_ser.txt, docs/man/riello\_usb.txt, docs/man/skel.txt, docs/man/solis.txt, docs/man/triplite.txt, docs/man/ups.conf.txt, docs/man/upscli\_add\_host\_cert.txt, docs/man/upscli\_connect.txt, docs/man/upscli\_disconnect.txt, docs/man/upscli\_get.txt, docs/man/upscli\_init.txt, docs/man/upscli\_splitaddr.txt, docs/man/upscli\_splitname.txt, docs/man/upscli\_upserror.txt, docs/man/upscli.txt, docs/man/upscmd.txt, docs/man/upsd.conf.txt, docs/man/upsd.txt, docs/man/upsd.users.txt, docs/man/upsdrvctl.txt, docs/man/upsdrvsvctl.txt, docs/man/upslog.txt, docs/man/upsmon.conf.txt, docs/man/upsmon.txt, docs/man/upsrw.txt, docs/man/upssched.txt, docs/man/upsset.cgi.txt, docs/man/upsset.conf.txt, docs/man/upsstats.html.txt, docs/man/usbhid-ups.txt, docs/man/victronups.txt: docs: fix some trailing whitespaces

**2.1130 2021-03-12 Jim Klimov <jim@jimklimov.com>**

- drivers/dstate.c: limit alarm\_buf string to fit into a dstate info status, and log errors and overflows from alarm\_set() [issue #960]

**2.1131 2021-03-02 Jim Klimov <jimklimov@gmail.com>**

- docs/man/nutdrv\_qx.txt: Update nutdrv\_qx.txt Fixed typo in a new masterguard paragraph

**2.1132 2021-03-02 Edgar Fuß <ef@math.uni-bonn.de>**

- docs/man/blazer-common.txt, docs/man/nutdrv\_qx.txt, docs/man/tripplite\_usb.txt, docs/man/usbhid-ups.txt: Add a remark that USB device numbers may be unstable In the documentation of the USB device number matching, add a remark that device numbers need not to be stable across re-boots or when re-plugging the device.
- drivers/usb-common.c: USB device matching: add debug messages on non-match When failing to match the Device part, note this via upsdebugx() just like when not matching any other part (VendorId, ProductId, Bus, etc.).

**2.1133 2021-02-12 Edgar Fuß <ef@math.uni-bonn.de>**

- tools/nut-usbinfopl: Fix VendorID/ProductID matching In a line like { USB\_DEVICE(0x06da, 0x0002), "Phoenixtec Power", "USB Cable (V2.00)", &phoenixtec\_subdriver }, /\* Masterguard A Series \*/ don't match ProductID up to the closing parenthesis in the product name string.

**2.1134 2021-02-11 Edgar Fuß <ef@math.uni-bonn.de>**

- docs/man/masterguard.txt, docs/man/nutdrv\_qx.txt, docs/nutdrv\_qx-subdrivers.txt, drivers/Makefile.am, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx\_masterguard.c, drivers/nutdrv\_qx\_masterguard.h: Add Masterguard A/E driver based on Q\* framework Add a new driver for Masterguard A and E series based on the Q\* framework (nutdrv\_qx). Based on vendor documentation of both the command set and USB protocol I was both asked not to disclose. Supports "new" A700/1000/2000/3000(-19) and E40/60/100(-19) (totally untested due to lack of hardware). Still sort of work in progress due to some open questions on NUT integration.
- docs/man/blazer-common.txt, docs/man/nutdrv\_qx.txt, docs/man/tripplite\_usb.txt, docs/man/usbhid-ups.txt, drivers/blazer\_usb.c, drivers/libusb.c, drivers/nutdrv\_qx.c, drivers/riello\_usb.c, drivers/tripplite\_usb.c, drivers/usb-common.c, drivers/usb-common.h, drivers/usbhid-ups.c: Add USB device number matching Extend the USB matching by a device number (in addition to the existing bus number) by adding a Device field to USBDevice\_[st] and amending the RegExp by a seventh field. Maybe some #defines for the magical constants would be appropriate. Add DEBUG\_EXACT\_MATCH\_DEVICE analogous to DEBUG\_EXACT\_MATCH\_BUS, whatever its intended usage is. Document the device field where the bus field was documented (which is not the case everywhere it's actually used).

**2.1135 2021-02-01 Clappier, Eric <EricClappier@Eaton.com>**

- drivers/eaton-pdu-marlin-mib.c, drivers/powerware-mib.c: Fix dry contacts status for EMP02

**2.1136 2021-01-31 TJ McConnell <tj@vergesense.com>**

- drivers/tripplite-hid.c: Move 0x3024 alphabetically. Add comment about new version

**2.1137 2021-01-26 Arnaud Quette <ArnaudQuette@eaton.com>**

- drivers/eaton-pdu-marlin-mib.c: snmp-ups: fix regression on Eaton ePDU Fix a regression that caused a mis-determination of the SNMP base OID index (0 or 1, should be 1). This in turn caused a mis-iteration over the outlets, from 0 to N-1 instead of 1 to N, which resulted in the missing Nth outlet (last outlet of the PDU). This also caused some data refresh issues
- drivers/eaton-pdu-marlin-mib.c: snmp-ups: fix regression on Eaton ePDU Fix a regression that caused a mis-determination of the SNMP base OID index (0 or 1, should be 1). This in turn caused a mis-iteration over the outlets, from 0 to N-1 instead of 1 to N, which resulted in the missing Nth outlet (last outlet of the PDU). This also caused some data refresh issues

**2.1138 2021-01-23 Yifeng Li <tomli@tomli.me>**

- drivers/main.c: main.c: write upsdrv\_initinfo/updateinfo() logs to syslog When a NUT driver is started (via upsdrvctl start), it runs the following sequence: 1. Run as a foreground process. 2. Do some basic initialization, log to stderr. 3. If not debugging: - fork()
  - Run as a daemon, stderr off, syslog on. The problem, however, is that upsdrv\_initinfo() and updateinfo() are first called before forking, as a result, the log messages is only sent to stderr, not syslog. On a traditional init \+ syslog server setup, those startup messages are lost. However, those lost messages can be urgent - for example, it can be a warning about a failed UPS inverter. If the server is freshly started, the admin may miss them until much later, or keep staring at the mysterious alarm word without finding anything relevant in syslog. Similarly, other types of warnings, such as a rounded ondelay value, should also be visible in syslog. This patch checks the debugging flags and turn on syslog earlier when it's in non-debug, non-fork mode, allowing the logs during upsdrv\_initinfo() and upsdrv\_updateinfo() to be recorded in syslog. Mailing list discussion: <https://alioth-lists.debian.net/pipermail/nut-upsdev/2021-January/007508.html>

**2.1139 2021-01-23 TJ McConnell <tj@vergesense.com>**

- drivers/tripplite-hid.c, scripts/upower/95-upower-hid.rules: Add AVR750U (0x3024). Use smart1500lcdt\_scale for voltage/current/frequency

**2.1140 2021-01-20 Jim Klimov <jim@jimklimov.com>**

- drivers/eaton-ats16-nm2-mib.c, drivers/eaton-ats16-nmc-mib.c: eaton-ats16-nm?-mib.c: port comments from 42ity fork to clarify what is going on here for mib2nut\_info\_t definitions
- tools/nut-scanner/scan\_snmp.c: comment about not-function pointers from libnet-snmp
- tools/nut-scanner/scan\_snmp.c: fix indentations and whitespaces
- tools/nut-scanner/scan\_xml\_http.c: fix indentations and whitespaces
- tools/nut-scanner/nut-scanner.c: nut-scanner.c: some extra whitespace, some missing, in longopts[]
- drivers/delta\_ups-mib.c: delta-mib.c: rename onbatt\_info lookup table in commented-away code sample
- drivers/huawei-mib.c: huawei-mib.c: rename onbatt\_info lookup table in commented-away code sample
- drivers/xppc-mib.c: xppc-mib.c: rename onbatt\_info lookup table in commented-away code sample

**2.1141 2021-01-08 Arnaud Quette <ArnaudQuette@eaton.com>**

- drivers/snmp-ups.c: snmp-ups: fix instant commands using numeric parameters Instant commands using numeric parameters, like on/off/cycle commands, were failing due to a bad value submitted type (time instead of integer) Cherry-picked from <https://github.com/42ity/nut/pull/120>

**2.1142 2021-01-06 Jim Klimov <jim@jimklimov.com>**

- server/netssl.c: #include "nut\_stdint.h" for limits definitions
- clients/upscommand.c, clients/upsimage.c, clients/upsmon.c, clients/upsrw.c, clients/upsstats.c, common/common.c, common/str.c, drivers/al175.c, drivers/bcmxcp.c, drivers/bcmxcp\_ser.c, drivers/bcmxcp\_usb.c, drivers/bestfortress.c, drivers/etapro.c, drivers/genericups.c, drivers/metasy.c, drivers/netxml-ups.c, drivers/nutdrv\_siemens\_sitop.c, drivers/powercom.h, drivers/richcomm\_usb.c, drivers/serial.c, drivers/snmp-ups.c, server/upsd.c: Various sources: use nut\_stdint.h where limits.h was introduced recently
- configure.ac, include/nut\_stdint.h: nut\_stdint.h: include limits.h and make sure SIZE\_MAX is defined

**2.1143 2020-12-29 Steve Magoun <smagoun@gmail.com>**

- drivers/macosx-ups.c: Add ups.mfr and ups.model legacy vars, fixes #949

**2.1144 2020-12-29 Jim Klimov <jim@jimklimov.com>**

- tests/nut-driver-enumerator-test.sh: allow to pass SHELL\_PROGS="busybox\_sh" as a single token
- ci\_build.sh: allow CI workers to say if they have functional libgd (for the current compiler/ABI version) so whether it should not be required

**2.1145 2020-12-28 Jim Klimov <jim@jimklimov.com>**

- ci\_build.sh: treat helper dirs (tmp/.inst/ CCACHE\_DIR/) correctly even if named FS objects are symlinks to dirs
- docs/Makefile.am, docs/man/Makefile.am: docs/{man/,}Makefile.am: parameterize EGREP and call "file" sanity checks case-insensitive
- m4/nut\_compiler\_family.m4: detect Apple LLVM as CLANG

**2.1146 2020-12-28 Charles Lepple <clepple+nut@gmail.com>**

- data/driver.list.in: HCL: Add CPS VP1200ELCD (ValueII\_1200E) Closes: <https://github.com/networkupstools/nut-ddl/issues/10>
- data/driver.list.in: HCL: Add Tripp Lite SMC15002URM Closes: <https://github.com/networkupstools/nut/issues/812>
- data/driver.list.in: HCL: Add Cyber Power Systems BR1000ELCD Closes: <https://github.com/networkupstools/nut/issues/552>

**2.1147 2020-12-27 Jim Klimov <jim@jimklimov.com>**

- drivers/richcomm\_usb.c: fix size\_t types for upsdebugx\_hex() and range-check the values
  - drivers/blazer\_usb.c: fix static const struct
  - drivers/blazer\_usb.c: fix whitespace
  - drivers/nutdrv\_qx.c: fix static const struct
  - clients/nutclient.cpp, clients/nutclient.h: clients/nutclient.{h,cpp}: explicitly request copy constructor generation for exception classes
  - configure.ac, docs/developers.txt: configure.ac docs/developers.txt: add a "medium" warning pre-set difficulty level
  - configure.ac: document the choice rationale of no-warning macros
  - docs/developers.txt, docs/nut.dict: docs/developers.txt: document the new --enable-warnings options
-

- configure.ac: define a clang-minimal warning preset that our codebase already survives
- .travis.yml, configure.ac: Move comment about clang no-warning selection from .travis.yml to configure.ac
- .travis.yml: make use of BUILD\_WARNFATAL=yes BUILD\_WARNOPT=hard to simplify the test setup specifications

## 2.1148 2020-12-26 Jim Klimov <jim@jimklimov.com>

- server/conf.c, server/upsd.c, server/upsd.h: server/upsd.{c,h} conf.c: fix maxconn to long, to match sysconf() return value; check that practical value range allows to malloc() the buffers
  - server/upsd.c: fix size\_t/ssize\_t types for {ssl\_,}write() in sendback()
  - server/netssl.c, server/netssl.h: server/netssl.{c,h}: fix ssl\_write()/ssl\_read() to return ssize\_t (like upsclient net\_write()/net\_read())
  - server/netssl.c: fix int types for OpenSSL codepaths
  - drivers/liebert-esp2.c: fix numphases to unsigned int
  - drivers/liebert-esp2.c: fix int size\_t types for read(), malloc() etc.
  - drivers/liebert-esp2.c: fix size\_t types for upsdebugx\_hex() and some indentation
  - drivers/isbmex.c: fix int size\_t types for read(), malloc() etc.
  - drivers/genericups.c: fix int types for sleep()
  - drivers/genericups.c: cast termios types for bit magic
  - drivers/gamatronic.h: fix speed\_t/size\_t in baud\_rates[] definition like for bcmxcp\_ser
  - drivers/gamatronic.c: fix some whitespace
  - drivers/gamatronic.c: fix int size\_t types for read(), malloc() etc.
  - drivers/etapro.c: constrain return value for etapro\_get\_response() type
  - drivers/bestuferrups.c: fix size\_t int type for execute() (use-cases pass sizeof() anyway)
  - drivers/bestfortress.c: constrain value for usleep() in upssend()
  - drivers/bestfortress.c: constrain return value for upssend() type
  - drivers/bestfortress.c: fix size\_t types for upsdebugx\_hex()
  - drivers/bestfcom.c: fix size\_t int type for execute() (use-cases pass sizeof() anyway)
  - drivers/belkinunv.c: fix int types for read(), malloc() etc.
  - drivers/belkinunv.c: fix int types for reg (byte)
  - drivers/belkin.c: fix size\_t/useconds\_t int type for cnt (already limited to byte range)
  - drivers/bcmxcp.c: whitespace fix indentation in set\_alarm\_support\_in\_alarm\_map()
  - drivers/bcmxcp.c: fix unsigned int type for index arguments in set\_alarm\_support\_in\_alarm\_map()
  - drivers/serial.c: fix ssize\_t int type for function returns vs size\_t buflen argument
  - drivers/dstate.c: fix size\_t int type for bufrw\_max
  - drivers/main.c: fix int types for poll\_interval
  - clients/upscmd.c: fix data range warnings for asserts about implem-dependent overflow chances
  - clients/upsrw.c: fix data range warnings for asserts about implem-dependent overflow chances
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- clients/upsclient.c: fix data range warnings for asserts about implem-dependent overflow chances
- clients/upsmon.c, clients/upsmon.h: clients/upsmon.c: fix int types for power value and totalpv accounting
- clients/upsmon.c: fix int types for sleep()
- clients/upsimage.c: make explicit casts from floating-points into int types for rendering
- clients/upscmd.c: fix int types for timeouts from upsclient.c
- clients/upsrw.c: fix int types for timeouts from upsclient.c
- clients/upsclient.c: fix numq int types for verify\_resp()
- .travis.yml: move \_matrix\_linux\_gnustd\_warn\_viable a bit up in \_matrix\_required\_linux listing, to get more probable failures earlier
- configure.ac: hush clang warnings about nullptr in C++ code (c\++98 not compatible))
- configure.ac: provide a hidden "gcc-legacy" warnings option to cover previous behavior
- ci\_build.sh: allow passing --enable-warnings=. . . and --enable-Werror=. . . args via BUILD\_WARNOPT and BUILD\_WARNFATAL envvars
- configure.ac: implement --enable-warnings=. . . and --enable-Werror(=yes/no) to specify the presets we require to pass
- m4/nut\_arg\_with.m4: add NUT\_ARG\_ENABLE and document the difference vs NUT\_ARG\_WITH
- ci\_build.sh: support passing BUILD\_SSL\_ONCE=true to only try whichever SSL implem is found, not both even if installed
- autogen.sh: shell-check that generated configure script is syntactically valid
- m4/nut\_compiler\_family.m4: fix tracking nut\_cv\_CLANGCC and determining CLANGCC=yes
- drivers/apcsmart.c, drivers/apcsmart.h: drivers/apcsmart.{c,h}: drop custom debx()/logx()/fatx()/fate() macros in favor of NUT-standard ones

#### 2.1149 2020-12-25 Jim Klimov <jimklimov@gmail.com>

- drivers/usbhid-ups.c: match\_function\_subdriver(): upsdebugx() device matching faults to help troubleshoot driver setups

#### 2.1150 2020-12-25 Jim Klimov <jim@jimklimov.com>

- clients/upsclient.c: make explicit a case size\_t/ssize\_t casting
  - clients/upsclient.c, clients/upsclient.h: clients/upsclient.{c,h}: fix "timeout" type in net\_read/net\_write/upscli\_sendline\_timeout/upscli\_select\_read/upscli\_select\_write to match upscli\_select\_read/upscli\_select\_write
  - clients/upsclient.c: fix int types for OpenSSL codepaths
  - common/common.c: fix initialization of a struct timeval (initialize all fields)
  - drivers/eaton-pdu-marlin-mib.c: fix initialization of a info\_lkp\_t (initialize all fields)
  - drivers/al175.c: assert incoming numbers, error-check the sprintf() result, and comment why
  - drivers/blazer\_usb.c, drivers/nutdrv\_qx.c: nutdrv\_qx blazer\_usb: report acceptable subdriver names in help()
  - drivers/bcmxcp\_ser.c: add comment for per-warning pragma naming
  - drivers/bcmxcp\_ser.c: fix wrong long macro name typo, for the pragmas gating
  - drivers/bcmxcp\_ser.c: drivers/bcmxcp\_ser.h: #include <limits.h> (lost in cherrypick web)
-

- docs/nut.dict: add Evgeny
- docs/nut.dict: add maintainership
- drivers/bcmxcp\_ser.c: fix nesting of macros for pragmas
- drivers/bcmxcp\_ser.c: use HAVE\_PRAGMAS\_FOR\_GCC\_DIAGNOSTIC\_IGNORED\_TAUTOLOGICAL\_CONSTANT\_OUT\_OF\_RANGE
- m4/ax\_c\_pragmas.m4: introduce HAVE\_PRAGMAS\_FOR\_GCC\_DIAGNOSTIC\_IGNORED\_TAUTOLOGICAL\_CONSTANT\_OUT\_OF\_RANGE (equivalent of HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_TYPE\_LIMITS on some compilers)
- drivers/bcmxcp\_ser.c: comment in/out function contexts for the pragma
- drivers/bcmxcp\_ser.c: do macro magic for HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_TYPE\_LIMITS\_BESIDE\_FUNC working with older compilers
- m4/ax\_c\_pragmas.m4: separate the support for #pragma GCC diagnostic... inside vs outside function bodies (gcc-4.4 and older are upset about "inside" case)
- drivers/bcmxcp\_ser.c: cast type for printing speed\_t on different OSes

#### 2.1151 2020-12-24 Jim Klimov <jimklimov@gmail.com>

- drivers/usb-common.c: usb-common.c: upsdebugx() device matching faults to help troubleshoot driver setups

#### 2.1152 2020-12-23 Jim Klimov <jim@jimklimov.com>

- docs/user-manual.txt: small typo fix
- docs/nut.dict: nut.dict: update with project names that nut-website spellchecking prefers to know
- docs/nut.dict: nut.dict: update with project names that nut-website spellchecking prefers to know
- docs/nut.dict: nut.dict: update with project names that nut-website spellchecking prefers to know

#### 2.1153 2020-12-21 Jim Klimov <jim@jimklimov.com>

- docs/acknowledgements.txt: update persons currently involved, new maintainer <https://alioth-lists.debian.net/pipermail/nut-upsdev/2020-November/007494.html>

#### 2.1154 2020-12-16 Clappier, Eric <EricClappier@Eaton.com>

- docs/nut-names.txt: Update nut name for sensor parent serial number
- docs/nut-names.txt: Update nut names
- drivers/eaton-pdu-marlin-mib.c, drivers/snmp-ups.c: Add ambient.n.parent.serial for marlin epdu Regarding dropped code from snmp-ups.c - per discussion in <https://github.com/42ity/nut/pull/117> this was not a typo: > It is an intentional change for oid read value issue. > This allows to actually retrieve an indirection value > (when an Oid points at an Oid, like stood)

#### 2.1155 2020-12-15 Clappier, Eric <EricClappier@Eaton.com>

- drivers/eaton-pdu-marlin-mib.c, drivers/powerware-mib.c: Change uid and modbus address name according nut nomenclature
-



**2.1156 2020-12-15 Bi11 <Bi11gates9999@gmail.com>**

- drivers/snmp-ups.c, tools/nut-scanner/scan\_snmp.c: Fix incorrect fatal message for privProtocol
- tools/nut-scanner/scan\_snmp.c: Fix incorrect usmAESPrivProtocol import in nut-scanner In libnetsnmp, usmAES128PrivProtocol is a pointer, while usmAESPrivProtocol is an array. This change is the same as in c7cf507454bcf6f40b24b58e61c130c7772c5bf2.

**2.1157 2020-12-15 Arnaud Quette <ArnaudQuette@eaton.com>**

- drivers/eaton-pdu-marlin-mib.c: snmp-ups: Restore legacy Eaton ePDU switchability info Use a hack to also have switchability for both the unit and its outlets on legacy Eaton G2 ePDU
- drivers/eaton-pdu-marlin-mib.c: snmp-ups: Restore legacy Eaton ePDU switchability info Use a hack to also have switchability for both the unit and its outlets on legacy Eaton G2 ePDU Partially cherry-picked from 42ity fork, and bumped to their faster moving MIB mapping revision number. See <https://github.com/42ity/nut/pull/118> As for the behavior of the fix: \* on G2, the first outlet.switchable doesn't exist, so try the 2nd, which is the ugly hack: try on the first outlet to see if switchable \* on G3, the first is good, so flag unique does the rest Tested on MA G2 and G3.

**2.1158 2020-12-14 Clappier, Eric <EricClappier@Eaton.com>**

- drivers/powerware-mib.c: Add modbus\_address and uuid in snmp-ups/pw driver

**2.1159 2020-12-07 Jim Klimov <jim@jimklimov.com>**

- drivers/metasys.c: various routines: fix command\_length into size\_t
- drivers/bcmxcp\_io.h, drivers/bcmxcp\_ser.c, drivers/bcmxcp\_usb.c: bcmxcp\*: various routines: fix command\_length into size\_t
- drivers/bcmxcp\_ser.c: get\_answer(): fix bytes\_read, end\_length and length into size\_t
- drivers/bcmxcp\_usb.c: get\_answer(): fix bytes\_read, end\_length and length into size\_t
- drivers/libusb.c: fix whitespace
- drivers/bcmxcp\_ser.c, drivers/bcmxcp\_ser.h: drivers/bcmxcp\_ser.{c,h}: get\_answer(): fix baud rate processing into speed\_t and size\_t

**2.1160 2020-12-02 Jim Klimov <jimklimov@gmail.com>**

- drivers/solis.c: Update solis.c Shuffle the comparison in the if-clause to certainly bail out if we did not read from the port.
- include/nut\_float.h: Update nut\_float.h Consider equality to epsilon to be also treated as zero
- include/nut\_float.h: Update nut\_float.h Fix copyright line

**2.1161 2020-12-02 Jim Klimov <jim@jimklimov.com>**

- drivers/bcmxcp.c: use size\_t for upsdebugx\_hex() and upsdebugx\_ascii() args for logged data length
- drivers/bcmxcp.c: fix a few whitespaces (indentation)

**2.1162 2020-12-01 Jim Klimov <jim@jimklimov.com>**

- drivers/bestfortress.c: fix printing of ssize\_t variable
  - drivers/masterguard.c: fix printing of ssize\_t variable
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**2.1163 2020-11-30 Jim Klimov <jim@jimklimov.com>**

- drivers/bestfortress.c: use size\_t where it should be, for data chunk length parsing
  - clients/upsstats.c: fix use of use size\_t vs int-argumented printf("%.s", int, str) formatting
  - drivers/al175.c: check pointer math WRT buffer lengths passed to logging
  - common/common.c, include/common.h: common.{c,h}: use size\_t for upsdebugx\_hex() and upsdebugx\_ascii() args for logged data length
  - drivers/tripplitesu.c: init\_comm(): fix data types to size\_t for strlen() function
  - drivers/tripplitesu.c: do\_command(): fix up "count" int type to be unsigned
  - drivers/tripplitesu.c: do\_command(): fix up "ret" int type to avoid conversions
  - drivers/masterguard.c: avoid value type conversion by changing data types to size\_t for strlen() function
  - drivers/masterguard.c: avoid value type conversion by casting explicitly the return value of strlen() function
  - clients/upsset.c: drivers/upsset.c: fix up int types to avoid implicit conversions
  - clients/upsimage.c: drivers/upsimage.c: avoid value type conversion by casting explicitly the return value of strlen() function
  - clients/upsimage.c: drivers/upsimage.c: fix up int types to avoid conversions
  - clients/cgilib.c: drivers/cgilib.c: fix up int types to avoid conversions
  - clients/upsstats.c: drivers/upsstats.c: fix up floating-point types to avoid conversions and precision change
  - clients/upsstats.c: use size\_t where it should be, for string length related processing
  - clients/upslog.c: use size\_t where it should be, for string length related processing
  - clients/upslog.c: avoid implicit floating-integer conversion
  - drivers/dummy-ups.c: use size\_t where it should be, for numargs-related parsing
  - clients/upsclient.c: use size\_t where it should be, for numargs parsing
  - server/netcmds.h, server/netget.c, server/netget.h, server/netinstcmd.c, server/netinstcmd.h, server/netlist.c, server/netlist.h, server/netmisc.c, server/netmisc.h, server/netset.c, server/netset.h, server/netssl.c, server/netssl.h, server/netuser.c, server/netuser.h, server/upsd.c, server/user.c: server/\*: numerous upsd commands: use size\_t where it should be, for numargs parsing
  - server/sockdebug.c: use (and print) size\_t where it should be, for numargs parsing
  - drivers/dstate.c: use size\_t where it should be, for numargs parsing
  - clients/ups sched.c: use (and print) size\_t where it should be, for numargs parsing
  - clients/upsmon.c: use size\_t where it should be, for numargs parsing
  - clients/upsset.c: use size\_t where it should be, for numargs parsing
  - server/conf.c: use size\_t where it should be, for numargs parsing
  - drivers/snmp-ups.c: whitespace fix
  - drivers/snmp-ups.c: use size\_t where it should be, for numargs parsing
  - common/state.c, include/state.h, server/sstate.c: common and server state.c: use size\_t where it should be, for numargs and numflags parsing
  - drivers/clone-outlet.c: use size\_t where it should be, for numargs parsing
  - drivers/clone.c: use size\_t where it should be, for numargs parsing
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- server/netssl.c: avoid implicit size\_t (arch-dependent) vs. PRInt32 (Mozilla NSS) integer conversion
- clients/upsclient.c: avoid implicit size\_t (arch-dependent) vs. PRInt32 (Mozilla NSS) integer conversion
- drivers/bestfortress.c: fix up int types to avoid implicit conversions, and pre-initialize to avoid uninitialized use
- drivers/nut-libfreeipmi.c: initialize variable to avoid potential uninitialized use
- drivers/blazer.c: initialize variable to avoid potential uninitialized use and convey an error if that happens
- drivers/powerpanel.c: initialize variable to avoid potential uninitialized use and convey an error if that happens
- drivers/solis.c: initialize variable to avoid potential uninitialized use and convey an error if that happens
- drivers/rhino.c: initialize variable to avoid potential uninitialized use and convey an error if that happens
- drivers/bestfortress.c: initialize variables to avoid potential uninitialized use and null-pointer dereference if data processing fails
- drivers/cps-hid.c: employ nut\_float.h for safer floating point comparisons
- drivers/snmp-ups.c: employ nut\_float.h for safer floating point comparisons
- drivers/nutdrv\_qx\_voltronic.c: employ nut\_float.h for safer floating point comparisons
- drivers/nutdrv\_qx\_bestups.c: employ nut\_float.h for safer floating point comparisons
- drivers/nutdrv\_qx.c: employ nut\_float.h for safer floating point comparisons
- drivers/blazer.c: employ nut\_float.h for safer floating point comparisons
- drivers/upscode2.c: employ nut\_float.h for safer floating point comparisons
- drivers/solis.c: employ nut\_float.h for safer floating point comparisons
- drivers/rhino.c: employ nut\_float.h for safer floating point comparisons
- drivers/metasys.c: employ nut\_float.h for safer floating point comparisons
- drivers/mge-hid.c: employ nut\_float.h for safer floating point comparisons
- configure.ac, include/Makefile.am, include/nut\_float.h: Introduce nut\_float.h and check more carefully for presence of math.h and/or float.h in the build system
- drivers/tripplite.c: avoid "bad function cast" by casting explicitly the return value of the function
- drivers/tripplite.c: avoid "bad function cast" by casting explicitly the return value of the function
- drivers/mge-xml.c: avoid "bad function cast" by casting explicitly the return value of the function
- drivers/bestfortress.c: avoid "bad function cast" by casting explicitly the return value of the function
- drivers/snmp-ups.c: fix snprintf() target buffer size from bogus sizeof() determination (#926)

## 2.1164 2020-11-29 Jim Klimov <jim@jimklimov.com>

- drivers/nutdrv\_atcl\_usb.c: fix const qualifier usage
  - drivers/snmp-ups.c: fix const qualifier usage
  - drivers/snmp-ups.h: remove const qualifiers from strings in snmp\_info\_t, we have code that writes into them
  - drivers/dstate.c: dstate\_tree\_dump(): fix const qualifier usage
  - drivers/bestfcom.c: avoid "bad function cast" by casting explicitly the return value of the function
  - drivers/libshut.c: avoid alignment issues with buffer used actually for different variable types
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- tools/nut-scanner/nutscan-ip.c: use HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_CAST\_ALIGN to quiesce warnings about a value we anyway receive a pointer to
  - m4/ax\_c\_pragmas.m4: introduce HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_CAST\_ALIGN
  - server/sstate.c: sstate\_dead(): do not shadow global varname "maxage" with same-named func argument
  - drivers/snmp-ups.c: su\_ups\_get(): do not shadow function-scope varname "value" with temporary-scope namesake
  - drivers/snmp-ups.c: snmp\_ups\_walk(): do not shadow global varnames "(input/output/bypass)\_phases" with same-named func local variables
  - drivers/upscode2.c: check\_uppm(): do not shadow function-scope varname "val" with temporary-scope namesake
  - drivers/libhid.c: new\_report\_buffer(): do not shadow global varname "pDesc" with same-named func argument
  - drivers/libshut.c: do not shadow global varnames "upsfd" and "device\_path" with same-named func arguments in numerous routines
  - drivers/dummy-ups.c: parse\_data\_file(): do not shadow global varname "upsfd" with same-named func argument (unused for good measure)
  - clients/upsset.c: print\_rw(): do not shadow global varname "upsname" with same-named func argument
  - drivers/riello\_usb.c: fix array initializers for sentinel entries
  - drivers/blazer\_usb.c: fix array initializers for sentinel entries
  - drivers/nutdrv\_qx\_voltronic.c: fix array initializers for sentinel entries
  - drivers/nutdrv\_qx.c: fix array initializers for sentinel entries
  - drivers/apcsmart\_tabs.c: fix array initializers for sentinel entries
  - drivers/apcsmart\_tabs.c: fix numeric 0 into pointer NULL
  - drivers/apcsmart.c: fix array initializers for sentinel entries
  - drivers/blazer\_ser.c: fix array initializers for sentinel entries
  - drivers/blazer.c: fix array initializers for sentinel entries
  - drivers/powerp-txt.c: fix array initializers for sentinel entries
  - drivers/powerp-bin.c: fix array initializers for sentinel entries
  - drivers/mge-hid.c: fix array initializers for sentinel entries
  - drivers/liebert-esp2.c: upsdrv\_initinfo(): fix array initializer; small whitespace clean-up
  - server/upsd.c: use HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_COVERED\_SWITCH\_DEFAULT to reinforce the defensive programming patterns
  - drivers/tripplite\_usb.c: use HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_COVERED\_SWITCH\_DEFAULT to reinforce the defensive programming patterns
  - drivers/nutdrv\_qx.c: use HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_COVERED\_SWITCH\_DEFAULT to reinforce the defensive programming patterns
  - drivers/powerp-bin.c: use HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_COVERED\_SWITCH\_DEFAULT to reinforce the defensive programming patterns
  - drivers/upscode2.c: use HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_COVERED\_SWITCH\_DEFAULT to reinforce the defensive programming patterns
  - drivers/usbhid-ups.c: use HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_COVERED\_SWITCH\_DEFAULT to reinforce the defensive programming patterns
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- m4/ax\_c\_pragmas.m4: introduce HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_COVERED\_SWITCH\_DEFAULT
- m4/ax\_c\_pragmas.m4: introduce HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_STRICT\_PROTOTYPES
- m4/ax\_c\_pragmas.m4: introduce HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_ASSIGN\_ENUM
- tools/nut-scanner/scan\_nut.c: use HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_STRICT\_PROTOTYPES to quiesce a system definition of signal routines
- drivers/dstate.c: use HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_STRICT\_PROTOTYPES to quiesce a system definition of signal routines
- drivers/main.c: use HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_STRICT\_PROTOTYPES to quiesce a system definition of signal routines
- clients/upssched.c: use HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_STRICT\_PROTOTYPES to quiesce a system definition of signal routines
- clients/upsmon.c: use HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_STRICT\_PROTOTYPES to quiesce a system definition of signal routines
- server/upsd.c: use HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_STRICT\_PROTOTYPES to quiesce a system definition of signal routines
- tools/nut-scanner/scan\_eaton\_serial.c: use HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_STRICT\_PROTOTYPES to quiesce a system definition of signal routines
- m4/ax\_c\_pragmas.m4: introduce HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_COVERED\_SWITCH\_DEFAULT
- m4/ax\_c\_pragmas.m4: introduce HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_STRICT\_PROTOTYPES
- m4/ax\_c\_pragmas.m4: introduce HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_ASSIGN\_ENUM
- tools/nut-scanner/nutscan-ip.c: whitespace/formatting fixes
- tools/nut-scanner/scan\_nut.c: whitespace/formatting fixes
- m4/ax\_c\_pragmas.m4: introduce HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_COVERED\_SWITCH\_DEFAULT
- m4/ax\_c\_pragmas.m4: introduce HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_STRICT\_PROTOTYPES
- tools/nut-scanner/scan\_avahi.c: use HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_ASSIGN\_ENUM to quiesce a thirdparty-strange usecase of enum
- m4/ax\_c\_pragmas.m4: introduce HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_ASSIGN\_ENUM
- tools/nut-scanner/nut-scanner.c: whitespace/formatting fixes
- tools/nut-scanner/nutscan-ip.h: whitespace/formatting fixes
- tools/nut-scanner/nutscan-device.c: whitespace/formatting fixes
- tools/nut-scanner/scan\_avahi.c: drop semicolons after scope braces

## 2.1165 2020-11-28 Jim Klimov <jim@jimklimov.com>

- ci\_build.sh: consider "gdlb" pkg-config presence equivalent to "libgd" There is a discrepancy between OS distro packaging names and the delivered .pc file name. . .
  - .travis.yml: mark "gnu\*-nowarn-x86-32bit" test cases evergreen
-

**2.1166 2020-11-27 Jim Klimov <jim@jimklimov.com>**

- drivers/bcmxcp.c, drivers/bcmxcp.h: drivers/bcmxcp.{h,c}: typo fix CAPASITOR⇒CAPACITOR
- tests/cpptest.cpp: cpptest.cpp: be sure to be able to handle exception objects
- .travis.yml: **xenial@s390x** does not have "time" for us (missed one beat)
- .travis.yml: from 32-bit build envs, drop amd64 libs that confuse the linker
- .travis.yml: tell the linker to go 32-bit too
- ci\_build.sh: relax the naming of libgd options seen in the wild
- clients/Makefile.am: AM\_CXXFLAGS\+=-I\$(top\_srcdir)/include

**2.1167 2020-11-26 Jim Klimov <jimklimov@gmail.com>**

- drivers/blazer\_usb.c: annotate #if/#else/#endif relevant to TESTING builds
- scripts/Solaris/precheck.py: quote shell vars, and report mismatches if any

**2.1168 2020-11-26 Jim Klimov <jim@jimklimov.com>**

- drivers/nutdrv\_atcl\_usb.c: copy-paste typo fix about unreachable code
- drivers/libusb.c: copy-paste typo fix about unreachable code
- drivers/libusb.c: copy-paste typo fix about unreachable code
- drivers/nutdrv\_atcl\_usb.c: copy-paste typo fix about unreachable code
- drivers/nutdrv\_qx\_blazer-common.c: remove overly-eager protection from nonliteral format strings
- .travis.yml: mark "gnu\*-nowarn-s390x" test cases evergreen

**2.1169 2020-11-26 Bastien Nocera <hadess@hadess.net>**

- tools/nut-usbinfo.pl: Reindent upower rules header This piece of the code was really confusing because it looked like, at a glance (and at more than a glance), that the line which we'd have read in the generated rules file was commented out. Turns out that beginning of lines in the generated rules could be in the middle of the line in the code that generated it. Reindent everything so that each line in the output corresponds to one line in the input, except for empty lines. There are no differences in output between the versions before and after this change.
- tools/nut-usbinfo.pl: Simplify exit path Why "!= usb" when we're already checking for usb and other values above? Always go to the end label if we didn't already jump to the section containing the actual rules.
- tools/nut-usbinfo.pl: Fix handling of "bind" events See <https://lwn.net/Articles/837033/> for an in-depth explanation of how "bind" events should be handled in udev rules. In short: " The ACTION line causes the entire file to be skipped for anything other than ADD or CHANGE events; in particular, that is what will happen with BIND events. That will cause properties associated with those events to be lost — and the device in question to be set up improperly (if at all). "

**2.1170 2020-11-25 Jim Klimov <jim@jimklimov.com>**

- drivers/solis.c: avoid variable-length arrays, their support became optional after C99
  - drivers/nutdrv\_qx.c: avoid variable-length arrays, their support became optional after C99
  - drivers/apcsmart.c: avoid variable-length arrays, their support became optional after C99
  - drivers/rhino.c: upsdrv\_shutdown(): use sendshut()
  - drivers/rhino.c: sendshut(): handle negative returns from send\_command()
  - drivers/rhino.c: fix mismatched signedness in comparison
  - drivers/rhino.c: avoid variable-length arrays, their support became optional after C99
  - tools/nut-scanner/scan\_xml\_http.c: drop semicolons after scope braces
  - tools/nut-scanner/nutscan-device.c: drop semicolons after scope braces
  - tools/nut-scanner/scan\_ipmi.c: drop semicolons after scope braces
  - drivers/riello.c: drop extra semicolons
  - drivers/bcmxcp.c: drop semicolons after scope braces
  - tools/nut-scanner/scan\_snmp.c: drop semicolons after scope braces
  - drivers/powercom.c: drop semicolons after scope braces
  - drivers/dstate.c: declare a macro for scoped block in a way that semicolon may follow
  - tools/nut-scanner/scan\_avahi.c: mark up NUT\_UNUSED\_VARIABLEs
  - tools/nut-scanner/scan\_ipmi.c: mark up NUT\_UNUSED\_VARIABLEs
  - tools/nut-scanner/scan\_xml\_http.c: mark up NUT\_UNUSED\_VARIABLEs
  - tools/nut-scanner/scan\_snmp.c: mark up NUT\_UNUSED\_VARIABLEs
  - tests/example.cpp, tests/nutclienttest.cpp: tests/nutclienttest.cpp example.cpp: wrap into HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED to avoid warnings for CppUnit macro implementation (boils down to static vars)
  - tests/cpptest.cpp, tests/example.cpp, tests/nutclienttest.cpp, tests/nutlogtest.c: tests/\*.{c,cpp}: update legaleze headings
  - tests/example.cpp: fix casting
  - tests/nutclienttest.cpp: fix CPPUNIT assert after nullptr
  - tests/nutclienttest.cpp: fix NULL ⇒ nullptr
  - tests/nutclienttest.cpp: fix casting
  - tests/Makefile.am: fix delivery and tracking of CPPUNITTEST(ER)SRC
  - tests/nutlogtest.c: add more tests to investigate NUT\_STRARG() behaviors
  - configure.ac, include/str.h, m4/ax\_c\_pragmas.m4: m4/ax\_c\_pragmas.m4, str.h ⇒ common.h: introduce HAVE\_PRINTF\_STRING\_N and NUT\_STRARG(x) macro (for [issue #904](#))
  - tests/nutlogtest.c: use HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_FORMAT\_OVERFLOW detection to quiesce warnings about "%s" resolving from NULL pointer First shot at issue NUT [#904](#)
  - m4/ax\_c\_pragmas.m4: introduce HAVE\_PRAGMA\_GCC\_DIAGNOSTIC\_IGNORED\_FORMAT\_OVERFLOW detection First shot at issue NUT [#904](#)
  - tests/cpptest.cpp: print final result code more comprehensibly (especially since process exit code is inverted)
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- clients/Makefile.am: be sure to use NUT libcommon for CXX client builds
  - clients/nutclient.cpp, clients/nutclient.h: clients/nutclient.{h,cpp}: move virtual destructors of exception classes into CPP file to bolt a linker unit (avoid Weak Vtables warnings and related build overheads)
  - clients/nutclient.cpp: (presumed) typo fix - line ended with comma not semicolon
  - clients/nutclient.cpp: quiesce warning and make visible the unused variable
  - clients/Makefile.am: define HAVE\_NUTCOMMON for NUT C\++ builds
  - clients/nutclient.cpp: use pragmas for -Wexit-time-destructors and -Wglobal-constructors handling for an std:string static variable
  - m4/ax\_c\_pragmas.m4: define pragmas for -Wexit-time-destructors and -Wglobal-constructors handling
  - clients/nutclient.cpp, clients/nutclient.h: clients/nutclient.{h,cpp}: align strarr\_alloc() type with xalloc() it uses  $\Rightarrow$  size\_t
  - clients/nutclient.cpp: fix old-style C casts into static\_cast<>s
  - clients/nutclient.cpp, clients/nutclient.h: clients/nutclient.cpp: for (clang) c\++ builds with C++11/17/20, avoid warnings about C++98 compatibility that we do not claim anyway - quiesce in C\++ source
  - m4/ax\_c\_pragmas.m4: for (clang) c\++ builds with C++11/17/20, avoid warnings about C\++98 compatibility that we do not claim anyway - check that we have pragmas for that
  - clients/nutclient.h: align method docs with param names
  - tools/nut-scanner/scan\_snmp.c: do not wrap variable definitions into parentheses like function pointers
  - drivers/al175.c: declare function(void) prototypes explicitly
  - drivers/netxml-ups.c: netxml\_alarm\_subscribe(): explicitly cast range-limited int conversions
  - drivers/powercom.c: wrap unreachable exit() added due to earlier compiler warnings with "ifndef HAVE\_ATTRIBUTENORETURN" to avoid opposite warnings now
  - drivers/powerman-pdu.c: annotate upsdrv\_shutdown() with noreturn attr
  - drivers/powercom.c: annotate upsdrv\_shutdown() with noreturn attr
  - drivers/riello\_usb.c: annotate shutdown\*() with noreturn attr
  - drivers/powercom.c: annotate shutdown\*() with noreturn attr
  - drivers/al175.c: annotate upsdrv\_shutdown() with noreturn attr
  - clients/upsmon.c: annotate forceshutdown() with noreturn attr
  - clients/upsimage.c: wrap unreachable exit() added due to earlier compiler warnings with "ifndef HAVE\_ATTRIBUTENORETURN" to avoid opposite warnings now
  - clients/upsimage.c: annotate lots of routines with noreturn attr
  - tools/nut-scanner/scan\_avahi.c: mark up NUT\_UNUSED\_VARIABLES
  - tools/nut-scanner/scan\_ipmi.c: mark up NUT\_UNUSED\_VARIABLES
  - tools/nut-scanner/scan\_xml\_http.c: mark up NUT\_UNUSED\_VARIABLES
  - tools/nut-scanner/scan\_snmp.c: mark up NUT\_UNUSED\_VARIABLES
  - drivers/netxml-ups.c: align method docs with param names
  - drivers/netxml-ups.c: align method docs with supported keywords
  - drivers/al175.c: align method docs with param names
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- drivers/hidparser.c: satisfy pedantic macro parser (defined vs. used value)
  - drivers/libshut.c: satisfy pedantic macro parser (defined vs. used value)
  - drivers/nutdrv\_qx.c: wrap unreachable exit() added due to earlier compiler warnings with "ifndef HAVE\_ATTRIBUTENORETURN" to avoid opposite warnings now
  - .travis.yml: [xenial@s390x](#) does not have "time" for us
  - drivers/riello\_usb.c: do not hijack system "errno" definition, and no use for local var of that name found anyway
  - drivers/powerman-pdu.c: do not assign invalid value not from enum range, especially when for no reason other than to have an un-used initial value
  - drivers/tripplite\_usb.c: cover all values of enum in a switch() Note: everything not covered before this PR got aliased into default cases. I do not know the hardware and models to rule this out otherwise, possibly assignments of binary and/or smart protocol (lack of?) support are now wrong.
  - drivers/powerp-bin.c: cover all values of enum in a switch()
  - drivers/bestfcom.c: do not "break" just after "fatalx()"
  - drivers/bcmxcp.c: do not "break" just after "return"
  - common/sterror.c: do not warn about unreachable code in the web of ifdef built blocks
  - drivers/liebert-esp2.c: fix indentation
  - drivers/nutdrv\_atcl\_usb.c: do not warn about nonliteral format string in this case
  - drivers/richcomm\_usb.c: do not warn about nonliteral format string in this case
  - drivers/snmp-ups.c: various routines: do not warn about nonliteral format string in these cases
  - drivers/nutdrv\_qx\_voltronic.c: various routines: do not warn about nonliteral format string in these cases
  - drivers/nutdrv\_qx.c: do not warn about nonliteral format string in this case
  - drivers/powerp-bin.c: do not warn about nonliteral format string in this case
  - drivers/usbhid-ups.c: do not warn about nonliteral format string in this case
  - drivers/liebert-esp2.c: do not warn about nonliteral format string in these cases
  - drivers/liebert-esp2.c: rename scope-local *val* variables that shadow another from same routine
  - drivers/belkinunv.c: do not warn about nonliteral format string in this case
  - drivers/bcmxcp.c: do not warn about nonliteral format string in this case
  - drivers/serial.c: various routines: do not warn about nonliteral format string in these cases
  - clients/upsset.c: clients/drivers: error\_page(): do not warn about nonliteral format string in this case
  - clients/upsmon.c: clients/drivers: do\_notify(): do not warn about nonliteral format string in this case
  - clients/upsimage.c: clients/drivers: drawbar() noimage(): do not warn about nonliteral format string in this case
  - clients/upsclient.c: build\_cmd(): do not warn about nonliteral format string in this case
  - clients/upsclient.c: upscli\_strerror(): do not warn about nonliteral format string in this case
  - tools/nut-scanner/nutscan-display.c: declare nutscan\_device\_type\_string[] file-local variable as static, and fix its indentation
  - clients/nutclient.h, tests/nutclienttest.cpp: tests/nutclienttest.cpp: add tests on Device, Variable and Command copying by assignment and by constructor
-

**2.1171 2020-11-24 Jim Klimov <jim@jimklimov.com>**

- .travis.yml: Issue #823 follow-up: add s390x (BigEndian) builds in Travis CI
- clients/nutclient.cpp: whitespace fixes (indentations, blank lines)
- clients/nutclient.h: whitespace fixes (indentations)
- .travis.yml: run gnu17-clang-8-nowarn-ARM-64bit case in fightwarn branches
- .travis.yml: annotate clearer the different allowed\_failure OS build sections
- .travis.yml: point all GCC -std=\*++99 to \*-98 I thought it was an older GCC quirk, but even new ones complain: g++: error: unrecognized command-line option -std=gnu++99; did you mean -std=gnu++98? g++ (FreeBSD Ports Collection) 10.0.0 20191222 (experimental) Copyright © 2019 Free Software Foundation, Inc. This is free software; see the source for copying conditions. There is NO warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.

**2.1172 2020-11-23 Jim Klimov <jim@jimklimov.com>**

- .travis.yml: work around poor packaging of multilib perl in ubuntu
- .travis.yml: define a &deps\_driverlibs\_cross\_i386 list for cross-builds (x86 32-bit)
- .travis.yml: for x86-32 builds with gnu17 standard, try to change install order for g++-multilib
- .travis.yml: for x86-32 builds with gnu99 standard, avoid g++-multilib
- ci\_build.sh: warn if libgd is not seen and a "default-all-errors" build might go without CGI binaries
- drivers/snmp-ups.c, drivers/snmp-ups.h: drivers/snmp-ups\*.c,h: export \*\_info vars to avoid not-used allegations
- drivers/apcupsd-ups.h: comment away status\_info[] as currently un-used
- drivers/riello.c, drivers/riello.h, drivers/riello\_ser.c, drivers/riello\_usb.c: drivers/riello\*.c,h: properly export variables shared between driver subtypes
- drivers/nut-libfreeipmi.c: comment away ipmi\_config as currently un-used
- drivers/mge-xml.c, drivers/netxml-ups.c, drivers/netxml-ups.h: drivers/netxml/mge-xml\*.c,h: export shutdown\_duration more usefully
- drivers/riello.h, drivers/riello\_ser.c, drivers/riello\_usb.c: drivers/riello\*.c,h: export get\_ups\_statuscode() to avoid not-used allegations
- drivers/libshut.c: fix pre-declaration of LIBshut\_set\_report()
- drivers/al175.c: declare ACT methods to keep compiler happy even if some are not currently used
- drivers/bcmxcp.c: comment away FreqTol as currently un-used
- tools/nut-scanner/nutscan-display.c: use nut-scan.h header
- tools/nut-scanner/nutscan-init.c: tools/nut-scanner/nutscan-init.h: use its own header
- server/netcmds.h: declare function(non-void!) prototype explicitly
- .travis.yml: mark gnuXX-gcc\*-arm64 test cases as evergreen
- .travis.yml: separate ARM64 test case matrices into ...\_viable and ...\_fatal subsets
- .travis.yml: introduce NUT\_MATRIX\_TAG="gnu17-gcc-9-nowarn-ARM-64bit" test case
- .travis.yml: drop gcc-multilib in ARM builds, seems missing in Debian
- .travis.yml: drop arm-32bit builds, seems a no-go on Travis quickly

- .travis.yml: Issue [#823](#) follow-up: add ARM 32-bit and 64-bit builds in Travis CI
- m4/nut\_report\_feature.m4: report the compiler tools and flags ultimately applied to this build
- .gitignore: GitIgnore configure-test.docbuild\* dirs
- .travis.yml: separate the matrix for \_matrix\_freebsd\_gnustd\_warn\_viable and ...\_fatal cases
- .travis.yml: mark "gnuXX-gcc-freebsd-warn" cases as evergreen to keep that way
- .travis.yml: on freebsd, `pkg install libgd` explicitly (needs sudo)
- .travis.yml: introduce freebsd test cases with warnings (typo fix)

## 2.1173 2020-11-22 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>

- clients/nutclient.h: declare strarr routines to be seen
  - tools/nut-scanner/scan\_xml\_http.c: expose load\_library() routine
  - server/netcmds.h: declare function(void) prototype explicitly
  - tools/nut-scanner/scan\_snmp.c: expose load\_library() routine
  - clients/upslog.h: declare function(non-void\*) prototype explicitly
  - tools/nut-scanner/scan\_eaton\_serial.c: declare multiple file-local routines as static
  - tools/nut-scanner/scan\_avahi.c: expose load\_library() routine
  - tools/nut-scanner/scan\_usb.c: expose load\_library() routine
  - tools/nut-scanner/scan\_ipmi.c: declare a file-local routine as static
  - tools/nut-scanner/scan\_nut.c: expose load\_library() routine
  - tools/nut-scanner/scan\_ipmi.c: expose load\_library() routine
  - drivers/nut-ipmi.h: declare function(void) prototype explicitly
  - drivers/apcsmart.c: declare multiple file-local routines as static
  - drivers/powercom.c: declare multiple file-local variables as static
  - drivers/oneac.c: declare multiple file-local routines as static
  - drivers/libshut.c: declare multiple file-local routines as static
  - drivers/microdowell.c: rectify whitespaces (indentations and blank lines)
  - drivers/microdowell.c: declare multiple file-local routines as static
  - drivers/microdowell.c: declare a driver-local variable as static
  - drivers/metasys.c: declare multiple file-local routines as static
  - drivers/isbmex.c: declare multiple file-local routines as static
  - drivers/gamatronic.c: do not mark common routine as static
  - drivers/gamatronic.c: declare multiple file-local routines as static
  - drivers/bestfortress.c: declare a file-local routine as static
  - drivers/bestfcom.c: declare multiple file-local routines as static
  - drivers/bestfcom.c: declare a driver-local variable as static
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- drivers/bcmxcp\_ser.c: declare a file-local routine as static
  - drivers/al175.c: declare multiple file-local routines as static
  - server/conf.c: declare a file-local variable as static
  - server/user.c: declare multiple file-local variables as static, and fix their indentation
  - server/upsd.c: declare multiple file-local routines as static
  - server/upsd.c: declare multiple file-local variables as static, and fix their indentation
  - server/netcmds.h: declare a file-local variable as static
  - tools/nut-scanner/nutscan-serial.c: declare a file-local variable as static
  - tools/nut-scanner/nut-scan.h: declare function(void) prototype explicitly
  - tools/nut-scanner/nutscan-device.h: declare function(void) prototype explicitly
  - tools/nut-scanner/scan\_snmp.c: declare multiple file-local variables as static
  - tools/nut-scanner/nut-scanner.c: declare a file-local routine as static
  - tools/nut-scanner/nut-scanner.c: declare multiple file-local variables as static
  - drivers/nut-libfreeipmi.c: declare function(void) prototype explicitly
  - drivers/nut-libfreeipmi.c: declare multiple file-local variables as static
  - drivers/nut-ipmipsu.c: declare multiple file-local variables as static
  - drivers/powerman-pdu.c: declare multiple file-local variables as static
  - drivers/netxml-ups.c: declare a driver-local variable as static
  - drivers/bcmxcp\_usb.c: declare multiple file-local variables as static
  - drivers/apc-hid.c: declare multiple file-local variables as static
  - drivers/emerson-avocent-pdu-mib.c: declare multiple file-local variables as static
  - drivers/masterguard.c: declare multiple file-local variables as static
  - drivers/Makefile.am, drivers/bcmxcp\_ser.c, drivers/bcmxcp\_ser.h, tools/nut-scanner/scan\_eaton\_serial.c: Introduce bcmxcp\_ser.h to provide as extern some variables from the driver also used in nut-scanner
  - drivers/raritan-px2-mib.c: declare a driver-local variable as static
  - drivers/snmp-ups.h: clients/snmp-ups.h: declare some setter/getter routines to be seen
  - drivers/snmp-ups.h: declare function(void) prototype explicitly
  - drivers/snmp-ups.c: declare multiple file-local routines as static
  - drivers/snmp-ups.c: declare multiple file-local variables as static
  - drivers/nutdrv\_qx\_bestups.c: declare multiple file-local variables as static
  - drivers/riello\_usb.c: declare multiple file-local routines as static
  - drivers/riello\_usb.c: declare multiple file-local variables as static
  - drivers/riello\_ser.c: declare multiple file-local routines as static
  - drivers/riello\_ser.c: declare multiple file-local variables as static
  - drivers/riello.h: declare function(void) prototype explicitly
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- drivers/riello.c: declare multiple file-local variables as static
  - drivers/apcupsd-ups.h: declare a driver-local variable as static
  - drivers/apcsmart-old.h: declare multiple file-local variables as static
  - drivers/victronups.c: declare multiple file-local variables as static
  - drivers/mge-hid.c: declare multiple file-local variables as static
  - drivers/mge-hid.c: end all info\_lkp\_t arrays with sentinel entries
  - drivers/apc-hid.h, drivers/libhid.h: Move "extern int max\_report\_size;" declaration from drivers/apc-hid.h to more suitable drivers/libhid.h
  - drivers/mge-utalk.c: declare a driver-local variable as static
  - drivers/mge-utalk.h: declare a driver-local variable as static
  - drivers/metasys.c: declare multiple file-local variables as static
  - drivers/tripplite\_usb.c: declare multiple file-local routines as static
  - tools/nut-scanner/nutscan-serial.c: fix diags pragmas to use our configured-support macros for cleaner fencing (nonliteral format strings)
  - drivers/nutdrv\_qx\_voltronic-qs-hex.c: fix diags pragmas to use our configured-support macros for cleaner fencing (nonliteral format strings)
  - drivers/nutdrv\_qx\_voltronic-qs.c: fix diags pragmas to use our configured-support macros for cleaner fencing (nonliteral format strings)
  - drivers/nutdrv\_qx\_mecer.c: fix diags pragmas to use our configured-support macros for cleaner fencing (nonliteral format strings)
  - drivers/nutdrv\_qx\_blazer-common.c: fix diags pragmas to use our configured-support macros for cleaner fencing (nonliteral format strings)
  - drivers/nutdrv\_qx\_bestups.c: fix diags pragmas to use our configured-support macros for cleaner fencing (nonliteral format strings)
  - drivers/apcupsd-ups.c: fix diags pragmas to use our configured-support macros for cleaner fencing (nonliteral format strings)
  - drivers/blazer.c: fix diags pragmas to use our configured-support macros for cleaner fencing (nonliteral format strings)
  - drivers/powerp-txt.c: fix diags pragmas to use our configured-support macros for cleaner fencing (nonliteral format strings)
  - drivers/mge-utalk.c: fix diags pragmas to use our configured-support macros for cleaner fencing (nonliteral format strings)
  - drivers/bestfortress.c: fix diags pragmas to use our configured-support macros for cleaner fencing (nonliteral format strings)
  - drivers/serial.c: fix diags pragmas to use our configured-support macros for cleaner fencing (nonliteral format strings)
  - drivers/dstate.c: fix diags pragmas to use our configured-support macros for cleaner fencing (nonliteral format strings)
  - clients/upssched.c: fix diags pragmas to use our configured-support macros for cleaner fencing (nonliteral format strings)
  - common/common.c: fix diags pragmas to use our configured-support macros for cleaner fencing (nonliteral format strings)
  - drivers/gamatronic.c: rectify whitespaces (indentations and blank lines)
  - include/timehead.h: satisfy pedantic macro parser (defined vs. used value)
  - m4/ax\_c\_pragmas.m4: alarm if bogus tests did not fail
  - m4/ax\_c\_pragmas.m4: adapt to gcc vs clang CLI capabilities
-

- configure.ac, m4/nut\_compiler\_family.m4: Introduce m4/nut\_compiler\_family.m4 detection
- drivers/tripplite\_usb.c: fix diags pragmas to use our configured-support macros for cleaner fencing (unreachable code)
- drivers/nutdrv\_atcl\_usb.c: fix diags pragmas to use our configured-support macros for cleaner fencing (unreachable code)
- drivers/libusb.c: fix diags pragmas to use our configured-support macros for cleaner fencing (unreachable code)
- drivers/richcomm\_usb.c: fix diags pragmas to use our configured-support macros for cleaner fencing (unreachable code)
- configure.ac, m4/ax\_c\_pragmas.m4: Introduce m4/ax\_c\_pragmas.m4
- .travis.yml: curiously, gcc-7 in Travis does not alias -std=gnu++99 to canonic gnu\++98
- autogen.sh: do not hide the progress of autoreconf
- ci\_build.sh: fix whitespace
- ci\_build.sh: parameterize \$CONFIGURE\_SCRIPT as it may be called differently on some platforms
- .travis.yml: amend cygwin bin files ACLs to let them execute Thanks <https://stackoverflow.com/a/4493653/4715872> for the hint
- .travis.yml: use choco bins in PATH also with /cygdrive/ prefix just in case
- .travis.yml: use cygwin bins in PATH also with /cygdrive/ prefix just in case
- .travis.yml: allow to skip cygwin autotools install if it was done earlier and cached
- .travis.yml: add \_matrix\_freebsd\_gnustd\_warn to \_matrix\_freebsd
- .travis.yml: introduce freebsd test cases with nowarn and gnu17
- .travis.yml: introduce freebsd test cases with warnings
- .travis.yml: mark "gnu99-gcc-freebsd-nowarn" and "gnu99-clang-freebsd-nowarn" as required
- ci\_build.sh: as of now, skip building cgi (needs libgd) on freebsd too, for "default-all-errors" test cases
- .travis.yml: define simple freebsd scenarios

#### 2.1174 2020-11-21 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>

- .travis.yml: use cygwin bins as last resort (e.g. for autoconf)
- .travis.yml: Revert ".travis.yml: run Windows test cases with cygwin bash" This reverts commit 4592860aa82a208969eb1ae3ac2ec1f9

#### 2.1175 2020-11-20 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>

- .travis.yml: explicit support on 64-bit Debianish systems for "gcc -m32" at least appears with gcc-multilib and g++-multilib packages
  - common/upsconf.c: conf\_args(): fix numargs type
  - common/str.c: str\_to\_{u,}short{,\_strict}() routines: explicit cast from temporary variable to return-value type
  - common/common.c: common/common.c: snprintfcat(): replace asserts by negative returns (and errno where applicable)
  - common/common.c: common/common.c: snprintfcat(): sort out the messy return types (avoid implicit cast in verification assert)
  - drivers/genericups.h: declare a driver-local variable as static
  - drivers/gamatronic.h: declare multiple file-local variables as static
-

- drivers/bestuferrups.c: declare a driver-local variable as static
  - drivers/dummy-ups.c: declare multiple file-local variables as static
  - drivers/dummy-ups.h: declare a driver-local variable as static
  - drivers/bestuferrups.c: declare a file-local variable as static
  - drivers/bestfortress.c: declare a file-local variable as static
  - drivers/belkinunv.c: declare multiple file-local variables as static
  - drivers/bcmxcp\_ser.c: declare multiple file-local variables as static
  - drivers/bcmxcp.c: declare multiple file-local variables as static
  - drivers/main.c: declare multiple file-local variables as static, and fix their indentation
  - clients/upssched.c: declare multiple file-local variables as static, and fix their indentation
  - clients/upsmon.h: declare file-local variable as static: struct notifylist[]
  - clients/upsset.c: declare multiple file-local variables as static, and fix their indentation
  - clients/upsimagearg.h: declare file-local variable as static: struct imgarg[]
  - clients/status.h: declare file-local variable as static: struct stattab[]
  - clients/upslog.h: declare file-local variable as static: struct logcmds[]
  - clients/upsclient.c: declare file-local variable as static: struct upscli\_errlist[]
  - common/common.c: various routines: do not warn about nonliteral format string in these cases
  - drivers/gamatronic.c: fix indentation and scope whitespace
  - drivers/gamatronic.c: fix trailing whitespace
  - common/common.c: cleaner macro processing for BUILD\_64
  - drivers/nutdrv\_atcl\_usb.c: do not warn about unreachable code where we handle a legacy off-chance that fatalx() might not exit the program
  - drivers/richcomm\_usb.c: do not warn about unreachable code where we handle a legacy off-chance that fatalx() might not exit the program
  - drivers/libusb.c: do not warn about unreachable code where we handle a legacy off-chance that fatalx() might not exit the program
  - server/upsd.c: a move "help" switch() handling to default case
  - server/upsd.c: a switch() default needs no break
  - drivers/upsdrvctl.c: a switch() default needs no break
  - drivers/riello\_usb.c: wrap unreachable exit() added due to earlier compiler warnings with "ifndef HAVE\_ATTRIBUTENORETURN" to avoid opposite warnings now
  - drivers/blazer\_usb.c: wrap unreachable exit() added due to earlier compiler warnings with "ifndef HAVE\_ATTRIBUTENORETURN" to avoid opposite warnings now
  - drivers/tripplite\_usb.c: wrap unreachable exit() added due to earlier compiler warnings with "ifndef HAVE\_ATTRIBUTENORETURN" to avoid opposite warnings now
  - drivers/tripplite\_usb.c: control\_outlet(): do not warn about syntactic "break;" after returns in conditionals
  - drivers/usbhid-ups.c: wrap unreachable exit() added due to earlier compiler warnings with "ifndef HAVE\_ATTRIBUTENORETURN" to avoid opposite warnings now
-

- drivers/metasys.c: a switch() default needs no break, especially not after fatalx()
- drivers/dummy-ups.c: a switch() default needs no break, especially not after fatalx()
- .gitignore: GitIgnore temporary dirs made by configure script (remain around if it is aborted)
- clients/upsmon.c: wrap unreachable exit() added due to earlier compiler warnings with "ifndef HAVE\_ATTRIBUTENORETURN" to avoid opposite warnings now
- clients/upsmon.c: wrap unreachable switch()-break after help() with "ifndef HAVE\_ATTRIBUTENORETURN" to avoid warnings
- clients/upslog.c: wrap unreachable switch()-break after help() with "ifndef HAVE\_ATTRIBUTENORETURN" to avoid warnings
- clients/upscmd.c: wrap unreachable exit() added due to earlier compiler warnings with "ifndef HAVE\_ATTRIBUTENORETURN" to avoid opposite warnings now
- clients/upsc.c: wrap unreachable exit() added due to earlier compiler warnings with "ifndef HAVE\_ATTRIBUTENORETURN" to avoid opposite warnings now
- server/upsd.c: wrap unreachable exit() added due to earlier compiler warnings with "ifndef HAVE\_ATTRIBUTENORETURN" to avoid opposite warnings now
- include/attribute.h: align with AX\_C\_ATTRIBUTE autoconf macro
- m4/ax\_c\_attribute.m4: extend to declare support for certain *attribute*... use-cases of interest to NUT
- configure.ac, m4/ax\_c\_attribute.m4: configure.ac: introduce AX\_C\_ATTRIBUTE from gnu.org
- server/upsd.c: annotate help() with noreturn attr
- drivers/nut-ipmipsu.c: annotate upsdrv\_shutdown() with noreturn attr
- drivers/bcmxcp\_usb.c: annotate nutusb\_open\_error() with noreturn attr
- drivers/bcmxcp\_usb.c: fix indenting whitespace
- drivers/riello\_ser.c: annotate upsdrv\_shutdown() with noreturn attr
- drivers/blazer.c: annotate upsdrv\_shutdown() with noreturn attr
- drivers/dummy-ups.c: annotate upsdrv\_shutdown() with noreturn attr
- clients/upsmon.c: annotate several routines with noreturn attrs
- clients/upsmon.c: help(): do not shadow global varname "progname" with same-named func argument
- clients/upsset.c: annotate several routines with noreturn attrs
- clients/upsimage.c: annotate drawimage() with noreturn attr
- clients/upslog.c: annotate help() with noreturn attr

#### 2.1176 2020-11-19 Jim Klimov <jim@jimklimov.com>

- .travis.yml: for windows builds, add /C/tools/cygwin/bin to PATH
- .travis.yml: define a NUT\_MATRIX\_TAG="gnu99-clang-win-warn" test case for completeness

#### 2.1177 2020-11-18 Jim Klimov <jimklimov@gmail.com>

- scripts/Solaris/precheck.py: modernize calling sub-processes for Python 2.6+ and 3+ (keep original way for older systems compat)
-



**2.1178 2020-11-18 Jim Klimov <jim@jimklimov.com>**

- drivers/tripplite.c: upsdrv\_initinfo(): use a literal format string
- tools/nut-scanner/nutscan-serial.c: do not warn about nonliteral format string in this case
- drivers/nutdrv\_qx\_voltronic-qs-hex.c: various routines: do not warn about nonliteral format string in these cases
- drivers/nutdrv\_qx\_voltronic-qs.c: do not warn about nonliteral format string in this case
- drivers/nutdrv\_qx\_mecer.c: various routines: do not warn about nonliteral format string in these cases
- drivers/nutdrv\_qx\_blazer-common.c: various routines: do not warn about nonliteral format string in these cases
- drivers/nutdrv\_qx\_bestups.c: various routines: do not warn about nonliteral format string in these cases
- drivers/apcupsd-ups.c: do not warn about nonliteral format string in this case
- drivers/blazer.c: various routines: do not warn about nonliteral format string in these cases
- drivers/powerp-txt.c: do not warn about nonliteral format string in this case
- drivers/mge-utalk.c: various routines: do not warn about nonliteral format string in this case
- drivers/bestfortress.c: setinfo\_float(): comment about a casting problem, and do not warn about nonliteral format string in this case
- drivers/bestfortress.c: do not warn about nonliteral format string in this case
- drivers/serial.c: do not warn about nonliteral format string in this case
- drivers/dstate.c: various routines: do not warn about nonliteral format string in this case
- clients/upssched.c: send\_to\_one(): do not warn about nonliteral format string in this case
- .travis.yml: fix typo in recent fix for clang warnings
- drivers/dstate.h: dstate\_setaux(): fix missed type change for "aux"
- drivers/dstate.c: dstate\_setaux(): fix missed type change for "aux"
- .gitignore: GitIgnore NetBeans project directory

**2.1179 2020-11-17 Jim Klimov <jim@jimklimov.com>**

- drivers/phoenixcontact\_modbus.c: mrir(): do not shadow global varname "ctx" with same-named func argument
  - drivers/usbhid-ups.c: possibly\_supported(): do not shadow global varname "hd" with func argument "hd"
  - drivers/riello\_ser.c: riello\_serialcomm(): do not shadow global varname "bufIn" with same-named func argument
  - tools/nut-scanner/scan\_eaton\_serial.c: shut\_synchronise(): do not shadow global varnames "upsfd" (from scan\_eaton\_serial.c and main.c) with func argument "upsfd"
  - clients/nutclient.cpp, clients/nutclient.h: nutclient.cpp: match a copy constructor with a copy assignment operator (Device, Variable, Command classes)
  - common/common.c: snprintfcat(): do not warn about nonliteral format string in this case
  - server/upsd.c: help(): do not shadow global varnames "progrname" (from upsd.c and main.c) with func argument "progrname"
  - drivers/upsdrvctl.c: annotate help() with noreturn attr
  - drivers/macosex-ups.c: annotate upsdrv\_shutdown() with noreturn attr
  - drivers/nutdrv\_qx.c: annotate upsdrv\_shutdown() with noreturn attr
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- drivers/apcupsd-ups.c: annotate upsdrv\_shutdown() with noreturn attr
  - drivers/ivtsd.c: annotate upsdrv\_shutdown() with noreturn attr
  - drivers/clone.c: annotate upsdrv\_shutdown() with noreturn attr
  - drivers/skel.c: annotate upsdrv\_shutdown() with noreturn attr
  - drivers/liebert.c: annotate upsdrv\_shutdown() with noreturn attr
  - drivers/serial.c: annotate ser\_open\_error() with noreturn attr
  - drivers/dstate.c: annotate sock\_fail() with noreturn attr
  - drivers/main.c: annotate forceshutdown() with noreturn attr
  - common/parseconf.c: annotate pconf\_fatal() with noreturn attr
  - scripts/augeas/gen-nutupsconf-aug.py: drop unused variables Originally PR meant to drop "global" modifier outside a local function context, but found that nothing defines or uses these three names. Must be some leftover from planned but unfinished development. Re-ran ./autogen.sh and it generates the same file for the build.
  - drivers/powerman-pdu.c: query\_one() query\_all(): do not shadow global varname "pm" with same-named func argument
  - drivers/triplite\_usb.c: subdriver\_match\_func(): do not shadow global varname "hd" with func argument "hd"
  - drivers/mge-xml.c: numerous routines: do not shadow global varname "val" (for XML element temp store?) with same-named func argument
  - drivers/netxml-ups.c: send\_http\_request(): do not shadow global varnames "session" and "uri" with func arguments
  - drivers/upscod2.c: upscod2.c: upsc\_setstatus(): do not shadow global varname "status" with func argument "status"
  - drivers/usbhid-ups.c: callback(): do not shadow global varname "udev" with func argument "udev"
  - drivers/usbhid-ups.c: callback(): do not shadow global varname "hd" with func argument "hd"
  - drivers/riello.c: riello\_calc\_CRC(): change data type to fix comparisons
  - drivers/powercom.c: output\_voltage(): avoid a multiplication overflow by casting
  - server/upsd.c: upsd.c: actually include signal.h from system
  - common/common.c: upsdebug\_hex() / upsdebug\_ascii(): fix const-ness of buf casting
  - common/common.c: get\_libname(): fix type to receive strlen()
  - common/state.c, drivers/dstate.c, include/state.h, server/netget.c: state.c dstate.c etc.: fix st\_tree\_t→aux to "long" as we convert via strtol()
  - common/parseconf.c: addchar(): signedness-aware trim of ctx→ch range
  - common/common.c: mark search\_paths[] as a static array
  - common/common.c: snprintfcat(): sort out the messy return types
  - common/common.c: sendsignalfn(): fix pid to "long" as we convert via strtol()
  - common/common.c: writepid(): fix data type for umask()
  - common/parseconf.c: parseconf.c: add\_arg\_word(): fix argpos to size\_t, we do not expect negative offsets
  - clients/upsclient.c, clients/upsclient.h, common/common.c, drivers/apcsmart.c, drivers/serial.c, drivers/serial.h, include/common.h: common, serial, upsclient: change read() and write() operations from "int" to "ssize\_t"
  - include/attribute.h: satisfy pedantic macro parser (defined vs. used value)
  - drivers/powercom.c: do not check "if model >= 2000" just after processing "model < 2000"
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- drivers/pijuice.c: do not check for "powerInput5vIo <= POWER\_PRESENT" twice in a row
- drivers/bcmxcp.c: do not check for "value>=0" when we pick it from "unsigned char[]" answer
- common/common.c: search\_paths[]: comment the reasoning (see also issue NUT [#805](#))
- drivers/apcupsd-ups.c: comment about htons() return value range (why I did not fix an "x<0" check)
- .travis.yml: run Windows test cases with cygwin bash
- .travis.yml: add at least a cygwin automake to Windows test cases
- .travis.yml: limit builds on xcode7.x to C11
- include/parseconf.h: fix trailing whitespace
- .travis.yml: mark clang builds with fatal warnings, additionally with -Wno-reserved-id-macro -Wno-padded to play around system header issues
- drivers/solis.c: convert from localtime() to localtime\_r() which is thread-safe
- drivers/rhino.c: convert from localtime() to localtime\_r() which is thread-safe
- drivers/microdowell.c: convert from localtime() to localtime\_r() which is thread-safe
- drivers/mge-hid.c: convert from localtime() to localtime\_r() which is thread-safe
- clients/upsstats.c: convert from localtime() to localtime\_r() which is thread-safe
- clients/upslog.c: convert from localtime() to localtime\_r() which is thread-safe

## 2.1180 2020-11-16 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>

- .gitignore: GitIgnore .gdb\_history files
  - .gitignore: GitIgnore conf?????/ temporary directories that can remain if configure script is aborted
  - .gitignore: GitIgnore conf\_nut\_report\_feature file (made by m4/nut\_report)
  - configure.ac: rephrase the notice about looking for required C library routines which are beyond strict C standards
  - configure.ac, m4/nut\_stash\_warnings.m4: Introduce m4/nut\_stash\_warnings.m4 and NUT\_STASH\_WARNINGS and NUT\_POP\_WARNINGS in configure.ac
  - ci\_build.sh: build\_to\_only\_catch\_errors(): also report on make check with the current test case
  - .travis.yml: Revert ".travis.yml: DISABLE test case "gnu99-clang-5.0-nowarn": it has some problem with the recently changed "tests/" (and runs clang-7 anyway as it does not use the PPA for 5.0)" This reverts commit 4749e0b26a33990dbd7bb56ff863cfc30db424 as we can now have this test case working again.
  - configure.ac: do not pick C\+11 support if a standard is explicitly requested by caller; fixes NUT [issue #873](#)
  - .travis.yml: fix test cases for NUT\_MATRIX\_TAG="-clang-5.0-" to actually use clang-5.0 explicitly
-

**2.1181 2020-11-15 Jim Klimov <jim@jimklimov.com>**

- .travis.yml: mark test-case "gnu17-gcc-9-warn" as passing now
- .travis.yml: add libnss3-dev and libssl-dev to test against both SSL implems
- .travis.yml: DISABLE test case "gnu99-clang-5.0-nowarn": it has some problem with the recently changed "tests/" (and runs clang-7 anyway as it does not use the PPA for 5.0)
- drivers/snmp-ups.c, m4/nut\_check\_libnetsnmp.m4: drivers/snmp-ups.c: fix the warning about how we get the size of us-mAES128PrivProtocol
- ci\_build.sh: configure\_nut(): sleep more before data dump so interactive devs can react to the broken configure run
- ci\_build.sh: build\_to\_only\_catch\_errors(): report a SUCCESS when we have one
- ci\_build.sh: allow caller to customize their PKG\_CONFIG\_PATH
- tests/Makefile.am: fix include dir for cppunittest
- server/netssl.c: comment about non-fatal build warnings from NSS include names we use
- server/netssl.c: mark up NUT\_UNUSED\_VARIABLES for build with Mozilla NSS
- clients/upsclient.c: mark up NUT\_UNUSED\_VARIABLES for build with Mozilla NSS
- m4/nut\_check\_libnss.m4: nut\_check\_libnss.m4 : warn that nss.pc is more sensitive to matching PKG\_CONFIG\_PATH and build bitness than others
- ci\_build.sh: ci\_build.sh : enable SSL build variants of "default-all-errors" with both OpenSS and Mozilla NSS
- m4/nut\_check\_libnetsnmp.m4: pick correct bitness net-snmp-config-{32,64} script if available

**2.1182 2020-11-14 Jim Klimov <jim@jimklimov.com>**

- tests/Makefile.am: fix include dir for nutlogtest

**2.1183 2020-11-13 Jim Klimov <jim@jimklimov.com>**

- tests/cpputest.cpp: tests/cpputest.cpp : wrap the test run to catch exceptions, if any
- tests/cpputest.cpp: tests/cpputest.cpp : comment the progress through steps
- tests/cpputest.cpp: mark up NUT\_UNUSED\_VARIABLES in the more portable manner
- tests/Makefile.am: tests/Makefile.am : comment the cases where we do not compile CXX tests
- tests/Makefile.am, tests/nutlogtest.c: Introduce tests/nutlogtest.c for upslog\*() and friends

**2.1184 2020-11-12 Jim Klimov <jimklimov@gmail.com>**

- docs/nut.dict: Update nut.dict
- docs/acknowledgements.txt: Update acknowledgements.txt Do not constrain contribution from EVER Power Systems to one person

**2.1185 2020-11-12 Jim Klimov <jim@jimklimov.com>**

- docs/nut.dict: nut.dict: spellcheck new keywords around "fightwarn" chapter
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**2.1186 2020-11-12 Jean-Baptiste Boric <Jean-BaptisteBORIC@Eaton.com>**

- drivers/main.c: Fix faulty dump mode logic

**2.1187 2020-11-11 Jim Klimov <jim@jimklimov.com>**

- docs/developers.txt: document NUT\_UNUSED\_VARIABLE()

**2.1188 2020-11-10 Jim Klimov <jim@jimklimov.com>**

- configure.ac: make checks for "Required C library routine" not fatal: -Wall -Werror frowns upon the ways autotools probe the system
  - configure.ac: detect routines that may be not available in constrained standard-C modes
  - .travis.yml: .travis.yml (#823) : green-light several GCC test cases that now pass even with all warnings enabled as fatal
  - clients/upsset.c: refine whitespace
  - docs/developers.txt: detail how to use ci\_build.sh intended for Travis CI to work on fixing stuff locally
  - configure.ac: configure.ac : detect abs() and fabs() funcs
  - include/common.h: include/common.h : drop NUT\_UNUSED and NUT\_UNUSED\_FUNCTION macros as not portable enough
  - drivers/mge-hid.c: mark up NUT\_UNUSED\_VARIABLEs in the more portable manner
  - drivers/tripplite-hid.c: mark up NUT\_UNUSED\_VARIABLEs in the more portable manner
  - drivers/richcomm\_usb.c: mark up NUT\_UNUSED\_VARIABLEs in the more portable manner
  - drivers/serial.c: mark up NUT\_UNUSED\_VARIABLEs in the more portable manner
  - drivers/bestfcom.c: mark up NUT\_UNUSED\_VARIABLEs in the more portable manner
  - drivers/dummy-ups.c: mark up NUT\_UNUSED\_VARIABLEs in the more portable manner
  - drivers/usbhid-ups.c: mark up NUT\_UNUSED\_VARIABLEs in the more portable manner
  - drivers/apcsmart-old.c: mark up NUT\_UNUSED\_VARIABLEs in the more portable manner
  - drivers/nutdrv\_atcl\_usb.c: mark up NUT\_UNUSED\_VARIABLEs in the more portable manner
  - drivers/cps-hid.c: mark up NUT\_UNUSED\_VARIABLEs in the more portable manner
  - drivers/apcsmart.c: mark up NUT\_UNUSED\_VARIABLEs in the more portable manner
  - drivers/bestfortress.c: mark up NUT\_UNUSED\_VARIABLEs in the more portable manner
  - drivers/bcmxcp\_usb.c: mark up NUT\_UNUSED\_VARIABLEs in the more portable manner
  - drivers/nutdrv\_qx.c: mark up NUT\_UNUSED\_VARIABLEs in the more portable manner
  - drivers/tripplite\_usb.c: mark up NUT\_UNUSED\_VARIABLEs in the more portable manner
  - drivers/blazer\_usb.c: mark up NUT\_UNUSED\_VARIABLEs in the more portable manner
  - drivers/upsdrvctl.c: mark up NUT\_UNUSED\_VARIABLEs in the more portable manner
  - drivers/apc-hid.c: mark up NUT\_UNUSED\_VARIABLEs in the more portable manner
  - drivers/nutdrv\_qx\_voltronic.c: mark up NUT\_UNUSED\_VARIABLEs in the more portable manner
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- drivers/riello\_usb.c: mark up NUT\_UNUSED\_VARIABLES in the more portable manner
  - drivers/explore-hid.c: mark up NUT\_UNUSED\_VARIABLES in the more portable manner
  - drivers/liebert-esp2.c: mark up NUT\_UNUSED\_VARIABLES in the more portable manner
  - server/upsd.c: mark up NUT\_UNUSED\_VARIABLES in the more portable manner
  - clients/upssched.c: mark up NUT\_UNUSED\_VARIABLES in the more portable manner
  - clients/upsset.c: mark up NUT\_UNUSED\_VARIABLES in the more portable manner
  - clients/upsimage.c: mark up NUT\_UNUSED\_VARIABLES in the more portable manner
  - clients/upsstats.c: mark up NUT\_UNUSED\_VARIABLES in the more portable manner
  - clients/upslog.c: mark up NUT\_UNUSED\_VARIABLES in the more portable manner
  - clients/upsmon.c: mark up NUT\_UNUSED\_VARIABLES in the more portable manner
  - tools/nut-scanner/scan\_eaton\_serial.c: mark up NUT\_UNUSED\_VARIABLES in the more portable manner
  - tools/nut-scanner/nut-scanner.c: mark up NUT\_UNUSED\_VARIABLES in the more portable manner
  - tools/nut-scanner/scan\_avahi.c: mark up NUT\_UNUSED\_VARIABLES in the more portable manner
  - drivers/libshut.c, drivers/riello\_ser.c, drivers/snmp-ups.c, tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_snmp.c: libshut.c riello\_ser.c nut-scanner bits: abolish non-standard u\_char and u\_short Probably standard C99 "uint8\_t" and 16(?) bit short would be more proper, especially for serial-line protocols. But the original code used types derived from hardware implementation sized "char" and "short" - so they stayed this way here.
  - drivers/riello\_usb.c: avoid implicit switch fall-through
  - clients/upsc.c: avoid implicit switch fall-through
  - clients/upscmd.c: avoid implicit switch fall-through
  - drivers/nutdrv\_qx.c: avoid implicit switch fall-through
  - drivers/usbhid-ups.c: avoid implicit switch fall-through
  - drivers/blazer\_usb.c: avoid implicit switch fall-through
  - server/upsd.c: add blank lines for readability of opts processing switch
  - server/upsd.c: avoid implicit switch fall-through
  - clients/upsstats.h: wrap with include-guards
  - clients/upssched.h: wrap with include-guards
  - clients/upsmon.h: wrap with include-guards
  - clients/upslog.h: wrap with include-guards
  - clients/upsimagearg.h: wrap with include-guards
  - clients/status.h: wrap with include-guards
  - clients/cgilib.h: wrap with include-guards
  - drivers/tripplite.h: wrap with include-guards
  - drivers/safenet.h: wrap with include-guards
  - drivers/riello.h: reword the wrap with include-guards
  - drivers/powercom.h: wrap with include-guards
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- drivers/mge-utalk.h: include/mge-utalk.h: wrap with include-guards
  - drivers/oneac.h: wrap with include-guards
  - drivers/main.h: reword the wrap with include-guards
  - drivers/libusb.h: reword the wrap with include-guards
  - drivers/libshut.h: reword the wrap with include-guards
  - drivers/libhid.h: reword the wrap with include-guards
  - drivers/hidparser.h: reword the wrap with include-guards
  - drivers/genericups.h: wrap with include-guards
  - drivers/gamatronic.h: wrap with include-guards and fix trailing whitespace
  - drivers/dummy-ups.h: wrap with include-guards
  - drivers/apcupsd-ups.h: wrap with include-guards
  - drivers/apcsmart\_tabs.h: reword the wrap with include-guards
  - drivers/apcsmart.h: reword the wrap with include-guards
  - drivers/apcsmart-old.h: wrap with include-guards
  - include/upsconf.h: wrap with include-guards
  - include/upsconf.h: add © and license header
  - include/upsconf.h: refine whitespace
  - include/timehead.h: add © and license header
  - include/timehead.h: wrap with include-guards
  - include/str.h: reword the wrap with include-guards
  - include/state.h: reword the wrap with include-guards
  - include/proto.h: add © and license header
  - include/proto.h: reword the wrap with include-guards
  - include/nut\_stdint.h: reword the wrap with include-guards
  - include/nut\_platform.h: reword the wrap with include-guards
  - include/extstate.h: add © and license header
  - include/extstate.h: reword the wrap with include-guards
  - include/extstate.h: refine whitespace
  - include/common.h: reword the wrap with include-guards
  - include/attribute.h: add © and license header
  - include/attribute.h: reword the wrap with include-guards
  - server/user.h: update © and license header
  - server/user.h: wrap with include-guards
  - server/user-data.h: update © and license header
  - server/user-data.h: wrap with include-guards
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- server/upstype.h: reword the wrap with include-guards
- server/stype.h: reword the wrap with include-guards
- server/sstate.h: reword the wrap with include-guards
- server/nut\_ctype.h: protect header files for C++ inclusion
- server/netuser.h: wrap with include-guards
- server/netuser.h: add © and license header
- server/netssl.h: reword the wrap with include-guards
- server/netset.h: wrap with include-guards
- server/netset.h: add © and license header
- server/netmisc.h: wrap with include-guards
- server/netmisc.h: add © and license header
- server/netcmds.h: add © and license header
- server/netlist.h: wrap with include-guards
- server/netlist.h: add © and license header
- server/netinstcmd.h: wrap with include-guards
- server/netinstcmd.h: add © and license header
- server/netget.h: wrap with include-guards
- server/netget.h: add © and license header
- server/neterr.h: protect header files for C++ inclusion
- server/neterr.h: wrap with include-guards
- server/neterr.h: add © and license header
- server/netcmds.h: wrap with include-guards
- server/desc.h: add © and license header
- server/desc.h: wrap with include-guards
- server/conf.h: update © and license header
- server/conf.h: wrap with include-guards

## **2.1189 2020-11-09 Jim Klimov <[jimklimov@gmail.com](mailto:jimklimov@gmail.com)>**

- docs/nut.dict: Update nut.dict Add EVER Sinline model name
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**2.1190 2020-11-09 Jim Klimov <jim@jimklimov.com>**

- drivers/rhino.c: drop extraneous parentheses
- drivers/nutdrv\_qx.h: avoid a trailing comma in enum list (C89)
- drivers/asem.c: drivers/al175.c: update Linux i2c include mesh (thanks to pijuice.c)
- drivers/pijuice.c: set\_power\_off(): drop unused "data"
- drivers/pijuice.c: avoid setting "data" during a write Compiler warnings resolved this puzzle: [2020-11-09 15:10:38] [build-err] pijuice.c:737:2: note: in expansion of macro 'I2C\_WRITE\_BYTE' [2020-11-09 15:10:38] [build-err] 737 \ I2C\_WRITE\_BYTE(upsfd, cmd, shutdown\_delay, func) [2020-11-09 15:10:38] [build-err] | ~~~~~ [2020-11-09 15:10:38] [build-err] pijuice.c:710:10: warning: variable 'data' So we did not need to set it at all, can go to simple anonymous negative-return check.
- drivers/pijuice.c: use "\_\_s32" de-facto in headers instead of "s32" from manpages
- drivers/pijuice.c: rearrange I2C\_\*() macros to catch -1 error codes while fetching unsigned ints
- drivers/apcsmart.c: fix variadic macro logx() call to accomodate modern standards
- drivers/apcsmart.c: fix variadic macro logx() call to accomodate modern standards
- drivers/apcsmart.c: fix variadic macro debx() call to accomodate modern standards
- drivers/pijuice.c: set\_poweroff(): fix limited value range exceeded
- drivers/pijuice.c: replace *FUNCTION* by *func* to avoid warnings error: ISO C does not support FUNCTION predefined identifier [-Werror=pedantic]
- drivers/bcmxcp.c: bump string buffer size to avoid potential overflows If we have some bug getting outlet numbers into billions (int at 64-bit) the string might overflow indeed...
- drivers/al175.c: document a warning to address later
- drivers/snmp-ups.c: avoid warning: control may reach end of non-void function

**2.1191 2020-11-08 Jim Klimov <jimklimov@gmail.com>**

- docs/developers.txt: Update developers.txt Another spellcheck fix
- docs/developers.txt: Update developers.txt Avoid "quiesce" to satisfy the spellchecker

**2.1192 2020-11-08 Jim Klimov <jim@jimklimov.com>**

- drivers/nutdrv\_atcl\_usb.c: avoid implicit switch fall-through
  - .travis.yml: our code (and checks) should not rely on specific compiler features; implicit switch FALLTHRU was solved by explicit goto jumps
  - docs/nut.dict: update for conf/upsstats-single.html.sample
  - docs/developers.txt: avoid spellcheck warning
  - drivers/eaton-pdu-marlin-mib.c: rearrange phases\_nb and sanity-check the value to debug-log unexpectancies
  - drivers/eaton-pdu-marlin-mib.c: sanity-check the outlet\_group\_nb (not negative)
  - drivers/blazer\_usb.c: upsdv\_initups(): constrain langid\_fix scanned values to fit into signed int
  - drivers/netxml-ups.c: rearrange sscanf() of inputs to avoid wrong int values
  - drivers/belkin-hid.c: use fabs() for floating-point math
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- drivers/belkin-hid.c: use fabs() for floating-point math
- drivers/netxml-ups.c: instcmd(): find a use for "extra"
- drivers/riello\_usb.c: instcmd(): find a use for "extra"
- drivers/tripplite\_usb.c: instcmd(): find a use for "extra"
- drivers/mge-xml.c: mark up NUT\_UNUSED\_VARIABLEs
- drivers/netxml-ups.c: mark up NUT\_UNUSED\_VARIABLEs
- drivers/nutdrv\_atcl\_usb.c: mark up NUT\_UNUSED\_VARIABLEs
- drivers/riello\_usb.c: mark up NUT\_UNUSED\_VARIABLEs
- drivers/richcomm\_usb.c: mark up NUT\_UNUSED\_VARIABLEs
- drivers/blazer\_usb.c: mark up NUT\_UNUSED\_VARIABLEs
- drivers/tripplite\_usb.c: mark up NUT\_UNUSED\_VARIABLEs
- drivers/bcmxcp\_usb.c: mark up NUT\_UNUSED\_VARIABLEs
- drivers/tripplite-hid.c: mark up NUT\_UNUSED\_VARIABLEs
- drivers/explore-hid.c: mark up NUT\_UNUSED\_VARIABLEs
- drivers/explore-hid.c: a few whitespace fixes
- drivers/cps-hid.c: mark up NUT\_UNUSED\_VARIABLEs
- drivers/usbhid-ups.c: mark up NUT\_UNUSED\_VARIABLEs
- drivers/apc-hid.c: mark up NUT\_UNUSED\_VARIABLEs (and comment a FIXME about possible use for that)
- drivers/snmp-ups.c: comment about issue found by pedantic compiler snmp-ups.c: In function *nut\_snmp\_init*: snmp-ups.c:599:66: error: division *sizeof(oid \* {aka long unsigned int}) / sizeof(oid {aka long unsigned int})* does not compute the number of array elements [-Werror=sizeof-pointer-div] 599 \ g\_snmp\_sess.securityPrivProtoLen = sizeof(usmAESPrivProtocol)/sizeof(oid);  
\ ^ In file included from /usr/include/net-snmp/snmppv3\_api.h:27, from /usr/include/net-snmp/net-snmp-includes.h:78, from snmp-ups.h:79, from snmp-ups.c:39: /usr/include/net-snmp/library/transform\_oids.h:50:26: note: first sizeof operand was declared here 50 \ NETSNMP\_IMPORT oid \*usmAES128PrivProtocol; / backwards compat / \ ^~~~\~ cc1: all warnings being treated as errors make[1]: \*\* [Makefile:1953: snmp\_ups-snmp-ups.o] Error 1
- drivers/apc-hid.c: a few whitespace fixes
- drivers/openups-hid.c: initialize all fields of info\_lkp\_t arrays
- drivers/tripplite-hid.c: initialize all fields of info\_lkp\_t arrays
- drivers/powercom-hid.c: initialize all fields of info\_lkp\_t arrays
- drivers/cps-hid.c: initialize all fields of info\_lkp\_t arrays
- drivers/belkin-hid.c: initialize all fields of info\_lkp\_t arrays
- drivers/apc-hid.c: initialize all fields of info\_lkp\_t arrays
- drivers/apc-pdu-mib.c: define APC\_PDU\_DEVICE\_MODEL macro on top of file
- drivers/apc-pdu-mib.c: initialize all fields of mib2nut\_info\_t arrays
- drivers/apc-pdu-mib.c: initialize all fields of info\_lkp\_t arrays
- drivers/apc-ats-mib.c: initialize all fields of mib2nut\_info\_t array
- drivers/apc-ats-mib.c: initialize all fields of info\_lkp\_t arrays

- drivers/eaton-ats16-mib.c: initialize all fields of mib2nut\_info\_t arrays
  - drivers/eaton-ats16-mib.c: initialize all fields of info\_lkp\_t arrays
  - drivers/huawei-mib.c: initialize all fields of mib2nut\_info\_t array
  - drivers/huawei-mib.c: initialize all fields of info\_lkp\_t arrays
  - drivers/hpe-pdu-mib.c: initialize all fields of mib2nut\_info\_t array
  - drivers/hpe-pdu-mib.c: initialize all fields of info\_lkp\_t arrays
  - drivers/eaton-ats30-mib.c: initialize all fields of mib2nut\_info\_t array
  - drivers/eaton-ats30-mib.c: initialize all fields of info\_lkp\_t arrays
  - drivers/delta\_ups-mib.c: initialize all fields of mib2nut\_info\_t array
  - drivers/delta\_ups-mib.c: initialize all fields of info\_lkp\_t arrays
  - drivers/cyberpower-mib.c: initialize all fields of mib2nut\_info\_t array
  - drivers/cyberpower-mib.c: initialize all fields of info\_lkp\_t arrays
  - drivers/bestpower-mib.c: initialize all fields of mib2nut\_info\_t array
  - drivers/bestpower-mib.c: initialize all fields of info\_lkp\_t arrays
  - drivers/xppc-mib.c: initialize all fields of info\_lkp\_t arrays, and end sentinel entries to close them off
  - docs/developers.txt, docs/nut.dict: Satisfy the spellchecker
  - drivers/xppc-mib.c: initialize all fields of mib2nut\_info\_t array
  - drivers/raritan-pdu-mib.c: initialize all fields of mib2nut\_info\_t array
  - drivers/raritan-px2-mib.c: initialize all fields of mib2nut\_info\_t array
  - drivers/raritan-px2-mib.c: fix indentations
  - drivers/raritan-px2-mib.c: initialize all fields of info\_lkp\_t arrays, and fix indentations in the table
  - drivers/raritan-pdu-mib.c: initialize all fields of info\_lkp\_t arrays
  - drivers/powerware-mib.c: initialize all fields of info\_lkp\_t arrays
  - drivers/netvision-mib.c: initialize all fields of mib2nut\_info\_t array
  - drivers/netvision-mib.c: initialize all fields of info\_lkp\_t arrays
  - drivers/mge-mib.c: initialize all fields of mib2nut\_info\_t array
  - drivers/mge-mib.c: initialize all fields of info\_lkp\_t arrays
  - drivers/ietf-mib.c: initialize all fields of mib2nut\_info\_t arrays
  - drivers/ietf-mib.c: initialize all fields of info\_lkp\_t arrays
  - drivers/emerson-avocent-pdu-mib.c: initialize all fields of info\_lkp\_t arrays
  - drivers/emerson-avocent-pdu-mib.c: initialize all fields of mib2nut\_info\_t array
  - drivers/eaton-pdu-revelation-mib.c: initialize all fields of mib2nut\_info\_t array
  - drivers/eaton-pdu-revelation-mib.c: initialize all fields of info\_lkp\_t arrays
  - drivers/eaton-pdu-pulizzi-mib.c: initialize all fields of mib2nut\_info\_t array
  - drivers/eaton-pdu-pulizzi-mib.c: initialize all fields of info\_lkp\_t arrays
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- drivers/eaton-pdu-marlin-mib.c: initialize all fields of mib2nut\_info\_t array
- drivers/eaton-pdu-marlin-mib.c: initialize all fields of info\_lkp\_t arrays
- drivers/eaton-pdu-genesis2-mib.c: initialize all fields of mib2nut\_info\_t array
- drivers/compaq-mib.c: initialize all fields of mib2nut\_info\_t array
- drivers/compaq-mib.c: initialize all fields of info\_lkp\_t arrays
- drivers/baytech-mib.c: initialize all fields of mib2nut\_info\_t array
- drivers/baytech-mib.c: initialize all fields of info\_lkp\_t arrays
- drivers/apc-mib.c: initialize all fields of mib2nut\_info\_t array (and comment concern whether the addition was right?)
- drivers/apc-mib.c: replace verbatim OID string we seek with a macro APC\_UPS\_DEVICE\_MODEL like elsewhere
- drivers/apc-mib.c: initialize all fields of info\_lkp\_t arrays
- drivers/mge-xml.c: avoid implicit switch fall-through (comment whether that wondering is the right thing to do though)
- drivers/blazer\_usb.c: avoid implicit switch fall-through
- drivers/riello\_usb.c: avoid implicit switch fall-through
- drivers/tripplite\_usb.c: avoid implicit switch fall-through
- ci\_build.sh: refactor to track failing "default-all-errors" so we can extend it to "configure\_nut()" and "build\_to\_only\_catch\_errors()" more variants
- ci\_build.sh: refactor to have a build\_to\_only\_catch\_errors() routine
- ci\_build.sh: refactor to have a configure\_nut() routine
- docs/developers.txt: document a valid use-case of goto for clean switch-case fall-through

### 2.1193 2020-11-07 Jim Klimov <jimklimov@gmail.com>

- drivers/eaton-ats16-mib.c: Update eaton-ats16-mib.c Reworded the comments
- drivers/nutdrv\_qx.c: Update nutdrv\_qx.c drivers/nutdrv\_qx.c: rectify indentations
- drivers/tripplite\_usb.c: Update tripplite\_usb.c drivers/tripplite\_usb.c: drop trailing whitespace
- docs/acknowledgements.txt: Update acknowledgements.txt Acknowledge a vendor contribution from EVER Power Systems
- drivers/ever-hid.c: Update ever-hid.c Small whitespace fixes
- docs/acknowledgements.txt: Update acknowledgements.txt Add vendor contribution from AMETEK Powervar for UPM series
- drivers/liebert-hid.c: Update liebert-hid.c Minor whitespace fixes

### 2.1194 2020-11-06 amccartney <andrew.mccartney@ametek.com>

- drivers/powervar-hid.c: Final clean up and edits for Powervar UPM support
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**2.1195 2020-11-06 Jim Klimov <jim@jimklimov.com>**

- tools/nut-scanner/scan\_xml\_http.c: drop g\_usec\_timeout which is not actually used
  - drivers/libusb.c: fix debug string formatting
  - drivers/nutdrv\_qx.c: upsdrv\_initups(): constrain langid\_fix scanned values to fit into signed int
  - drivers/nutdrv\_qx\_voltronic.c: avoid buffer overflows iterating item→info\_rw, possible NPE, and fix the check for hitting the sentinel entry Fix warnings like: nutdrv\_qx\_voltronic.c:4037:39: error: division *sizeof (info\_rw\_t \*) / sizeof (info\_rw\_t)* does not compute the number of array elements [-Werror=sizeof-pointer-div] 4037 \l if (i >= (int)(sizeof(item→info\_rw) / sizeof(item→info\_rw[0]))) { \l ^ nutdrv\_qx\_voltronic.c: In function *voltronic\_p3lg\_set*:
  - drivers/nutdrv\_qx\_voltronic.c: voltronic\_fault(): avoid buffer overflows with sprintf()
  - tools/nut-scanner/scan\_xml\_http.c: avoid possible buffer overflow
  - drivers/snmp-ups.c: su\_alarm\_set(): bump alarm\_info\_value size to avoid print overflows
  - drivers/upscode2.c: use fabs() for floating-point math
  - drivers/riello\_ser.c: instcmd(): find a use for "extra"
  - drivers/apcsmart-old.c: instcmd(): find a use for "extra"
  - drivers/ivtsd.c: instcmd(): find a use for "extra"
  - drivers/clone.c: instcmd(): find a use for "extra"
  - drivers/powerman-pdu.c: instcmd(): find a use for "extra"
  - drivers/powerp-txt.c: powpan\_instcmd(): find a use for "extra"
  - drivers/powerp-bin.c: powpan\_instcmd(): find a use for "extra"
  - drivers/victronups.c: instcmd(): find a use for "extra"
  - drivers/nutdrv\_qx\_voltronic.c: mark up NUT\_UNUSED\_VARIABLEs
  - drivers/nutdrv\_qx.c: mark up NUT\_UNUSED\_VARIABLEs
  - drivers/apcsmart-old.c: mark up NUT\_UNUSED\_VARIABLEs
  - tools/nut-scanner/nut-scanner.c: mark up NUT\_UNUSED\_VARIABLEs
  - server/netuser.c: mark up NUT\_UNUSED\_VARIABLEs
  - server/netmisc.c: mark up NUT\_UNUSED\_VARIABLEs
  - server/netssl.c: mark up NUT\_UNUSED\_VARIABLEs
  - server/upsd.c: mark up NUT\_UNUSED\_VARIABLEs
  - drivers/upsdrvctl.c: mark up NUT\_UNUSED\_VARIABLEs
  - drivers/apcsmart.c: mark up NUT\_UNUSED\_VARIABLEs
  - tools/nut-scanner/scan\_eaton\_serial.c: mark up NUT\_UNUSED\_VARIABLEs
  - tools/nut-scanner/scan\_avahi.c: mark up NUT\_UNUSED\_VARIABLEs
  - drivers/apcsmart\_tabs.c: initialize all fields of upsdrv\_info\_t array
  - drivers/apcsmart\_tabs.c: initialize all fields of apc\_vartab\_t arrays
  - tools/nut-scanner/nutscan-serial.c: initialize all fields of device\_portname\_t arrays
  - drivers/upscode2.c: initialize all fields of cmd\_t and simple\_t arrays
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- drivers/upscore2.c: comment the fallback in upsc\_simple() switch, so far consider it explicitly desired as it was before
  - drivers/isbmex.c: replace FALLTHRU comments with more portable and reliable goto jumps
  - tools/nut-scanner/nut-scanner.c: explicit fall through to displaying help
  - drivers/nutdrv\_qx.c: qx\_command(): explicit fall through the switch
  - drivers/mge-hid.c: replace FALLTHRU comments with same returns as the next default case
  - drivers/usbhid-ups.c: replace FALLTHRU comments with more portable and reliable goto jumps
  - clients/upsc.c: replace FALLTHRU comments with more portable and reliable goto jumps
  - common/snprintf.c: replace FALLTHRU comments with more portable and reliable goto jumps
  - configure.ac: drop trailing whitespace
  - tools/nut-usbinfo.pl: drop trailing whitespace
  - tools/nut-recorder.sh: drop trailing whitespace
  - tools/nut-ddl-dump.sh: drop trailing whitespace
  - tests/nutclienttest.cpp: drop trailing whitespace
  - server/user.c: drop trailing whitespace
  - server/upstype.h: drop trailing whitespace
  - server/ssstate.c: drop trailing whitespace
  - server/sockdebug.c: drop trailing whitespace
  - server/netlist.c: drop trailing whitespace
  - server/netinstcmd.c: drop trailing whitespace
  - server/netget.c: drop trailing whitespace
  - server/conf.c: drop trailing whitespace
  - common/upsconf.c: drop trailing whitespace
  - common/state.c: drop trailing whitespace
  - common/setenv.c: drop trailing whitespace
  - common/parseconf.c: drop trailing whitespace
  - clients/upsmon.h: drop trailing whitespace
  - clients/upsimagearg.h: rectify whitespace
  - clients/upsclient.h: drop trailing whitespace
  - clients/nutclient.cpp, clients/nutclient.h: clients/nutclient.{cpp,h}: drop trailing whitespace
  - clients/cgilib.c: drop trailing whitespace
  - drivers/nut-ipmipsu.c, drivers/nut-libfreeipmi.c: drivers/nut-**ipmi**\*.{c,h}: drop trailing whitespace
  - drivers/netxml-ups.c, drivers/netxml-ups.h: drivers/netxml-ups.{c,h}: drop trailing whitespace
  - drivers/mge-utalk.h, drivers/mge-xml.c, drivers/mge-xml.h: drivers/mge\*.{c,h}: drop trailing whitespace
  - drivers/main.h: drop trailing whitespace
  - drivers/main.c: Drop exec bit from source file
-

- drivers/liebert-hid.h, drivers/liebert.c: drivers/liebert\*: drop trailing whitespace
  - drivers/libhid.c: drivers/libhid.h: drop trailing whitespace
  - drivers/idowell-hid.c: drivers/idowell-hid.h: drop trailing whitespace
  - drivers/hidtypes.h: drop trailing whitespace
  - drivers/genericups.h: drop trailing whitespace
  - drivers/everups.c: drop trailing whitespace
  - drivers/eaton-pdu-pulizzi-mib.c: drop trailing whitespace
  - drivers/dummy-ups.h: drop trailing whitespace
  - drivers/dstate.c: drop trailing whitespace
  - drivers/delta\_ups-mib.c: drop trailing whitespace
  - drivers/cyberpower-mib.c: drop trailing whitespace
  - drivers/blazer.c, drivers/blazer\_usb.c: drivers/blazer\*.{c,h}: drop trailing whitespace
  - drivers/bestuferrups.c: rectify indentations
  - drivers/bestuferrups.c: drop trailing whitespace
  - drivers/belkin-hid.c, drivers/belkin-hid.h: drivers/belkin\*.{c,h}: drop trailing whitespace
  - drivers/bcmxcp\_io.h, drivers/bcmxcp\_ser.c, drivers/bcmxcp\_usb.c: drivers/bcmxcp\*.{c,h}: drop trailing whitespace
  - drivers/baytech-mib.c: drop trailing whitespace
  - drivers/apc-mib.c: drop trailing whitespace
  - drivers/apc-hid.c, drivers/apc-hid.h: drivers/apc-hid.{c,h}: drop trailing whitespace
  - drivers/xppc-mib.c: drivers/xppc-mib.h: drop trailing whitespace
  - drivers/tripplite-hid.h: drop trailing whitespace
  - drivers/snmp-ups.h: drop trailing whitespace
  - drivers/skel.c: drop trailing whitespace
  - drivers/richcomm\_usb.c: drop trailing whitespace
  - drivers/powerware-mib.c: drop trailing whitespace
  - drivers/openups-hid.c: drop trailing whitespace
  - drivers/oneac.c, drivers/oneac.h: drivers/oneac.{c,h}: drop trailing whitespace
  - drivers/nutdrv\_atcl\_usb.c: drop trailing whitespace
  - drivers/riello.c, drivers/riello\_ser.c, drivers/riello\_usb.c: drivers/riello\*.{c,h}: drop trailing whitespaces
  - drivers/apcsmart-old.c, drivers/apcsmart-old.h: drivers/apcsmart-old.{c,h}: drop trailing whitespaces
  - tools/nut-scanner/nut-scanner.c: fix whitespaces
  - tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-ip.c, tools/nut-scanner/nutscan-ip.h, tools/nut-scanner/scan\_avahi.c, tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_usb.c: tools/nut-scanner\*.{c,h}: drop trailing whitespaces
  - server/netmisc.c: drop trailing whitespaces
  - server/netssl.c: drop trailing whitespaces
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- server/upsd.c: drop trailing whitespaces
- drivers/ivtsd.c: drop trailing whitespaces
- drivers/powerp-bin.h, drivers/powerp-txt.h, drivers/powerpanel.c, drivers/powerpanel.h: drivers/powerp\*.{c,h}: drop trailing whitespaces
- drivers/powerp-txt.c: drop trailing whitespaces
- drivers/powerp-bin.c: drop trailing whitespaces
- drivers/victronups.c: rectify whitespace
- drivers/upscore2.c: rectify whitespace

## 2.1196 2020-11-05 Jim Klimov <jim@jimklimov.com>

- drivers/hidparser.c: hide logging check that never fires hidparser.c:347:28: error: comparison is always false due to limited range of data type [-Werror=type-limits] 347 \l if(pParser→Data.ReportID >= MAX\_REPORT) uint8\_t vs "500" CC @aquette
- drivers/solis.h: swap "const static" ⇒ "static const" Avoids error: *static* is not at beginning of declaration [-Werror=old-style-declaration]
- drivers/solis.c: rectify C-style comments
- drivers/isbmex.c: comment about magic D() macro got debug logging vs. upsdebugx()
- drivers/rhino.c: ScanReceivePack(): rephrase if-clause to avoid warnings Seems this is a correct change logically: - if( !( SourceFail ) == RedeAnterior ) \+ if( RedeAnterior == !( SourceFail ) ) given this assignment just below the if-clause: RedeAnterior = !( SourceFail ); to avoid a compiler warning that "!" might apply not in a way intended by author
- drivers/masterguard.c: StringSplit(): use the maxlen
- drivers/liebert-esp2.c: setvar(): find a use for "val"
- drivers/bestfcom.c: increase buffers to avoid overflow (warnings)
- drivers/bcmxcp.c: setvar(): increase buffers to avoid overflow (warnings)
- drivers/tripplitesu.c: instcmd(): find a use for "extra"
- drivers/tripplite.c: instcmd(): find a use for "extra"
- drivers/solis.c: instcmd(): find a use for "extra"
- drivers/nutdrv\_siemens\_sitop.c: instcmd(): find a use for "extra"
- drivers/safenet.c: instcmd(): find a use for "extra"
- drivers/rhino.c: instcmd(): find a use for "extra"
- drivers/powercom.c: instcmd(): find a use for "extra"
- drivers/optiups.c: instcmd(): find a use for "extra"
- drivers/mge-utalk.c: instcmd(): find a use for "extra"
- drivers/metasys.c: instcmd(): find a use for "extra"
- drivers/liebert-esp2.c: instcmd(): find a use for "extra"
- drivers/etapro.c: instcmd(): find a use for "extra"
- drivers/dummy-ups.c: instcmd(): find a use for "extra"
- drivers/bestups.c: instcmd(): find a use for "extra"



- drivers/bestfortress.c: instcmd(): find a use for "extra"
  - drivers/belkinunv.c: instcmd(): find a use for "extra"
  - drivers/belkin.c: instcmd(): find a use for "extra"
  - drivers/bcmxcp.c: instcmd(): find a use for "extra"
  - drivers/mge-hid.c: mark up NUT\_UNUSED\_VARIABLEs
  - drivers/libshut.c: mark up NUT\_UNUSED\_VARIABLEs
  - drivers/liebert-esp2.c: mark up NUT\_UNUSED\_VARIABLEs
  - drivers/dummy-ups.c: mark up NUT\_UNUSED\_VARIABLEs
  - drivers/bestfortress.c: mark up NUT\_UNUSED\_VARIABLEs
  - drivers/bestfcom.c: mark up NUT\_UNUSED\_VARIABLEs
  - drivers/optiups.c: initialize all fields of ezfill\_t tables
  - drivers/mge-hid.c: update arrays of info\_lkp\_t with fourth (nuf) field and comment where a real nuf() might be useful
  - drivers/usbhid-ups.c: update arrays of info\_lkp\_t with fourth (nuf) field and comment where a real nuf() might be useful
  - drivers/usbhid-ups.c: update arrays of info\_lkp\_t with fourth (nuf) field
  - drivers/usbhid-ups.c: update HIDDevice\_t object with missing initializer for bcdDevice
  - drivers/mge-hid.c: drivers/mge-utalk.c: update arrays of info\_lkp\_t with fourth (nuf) field
  - drivers/gamatronic.h: initialize the "value" field in the struct array
  - drivers/gamatronic.h: avoid anonymous struct
  - drivers/isbmex.c: upsdry\_updateinfo(): fix switch/break
  - drivers/mge-hid.c: quiesce -Wimplicit-fallthrough=3 warnings about fall-through in switch
  - drivers/usbhid-ups.c: quiesce -Wimplicit-fallthrough=3 warnings about fall-through in switch
  - .travis.yml: in NUT\_MATRIX test cases, specify -Werror=implicit-fallthrough=3 to let special comments quiesce the warning where a FALLTHRU is intentional
  - .travis.yml: in clang test cases, do not insist that all macros are used, or we can not pass even autoconf
  - drivers/tripplitesu.c: drop trailing whitespaces
  - drivers/solis.c, drivers/solis.h: drivers/solis.{c,h}: rectify whitespaces
  - drivers/safenet.c: drop trailing whitespaces
  - drivers/rhino.c: normalize whitespace heavily
  - drivers/powercom.c: rectify leading whitespaces
  - drivers/powercom.c: drop trailing whitespaces
  - drivers/powercom.h: drop trailing whitespaces
  - drivers/optiups.c: rectify whitespaces
  - drivers/hidparser.c: drop trailing whitespaces
  - drivers/usb-common.c: drop trailing whitespaces
  - drivers/libshut.h, drivers/libusb.h, drivers/usb-common.h: drivers/libshut.h libusb.h usb-common.h: drop trailing whitespaces
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- drivers/libshut.c: rectify whitespaces per style guide
- drivers/mge-utalk.c: drop trailing whitespaces
- drivers/metasys.c: drop trailing whitespaces
- drivers/masterguard.c: rectify whitespaces and drop comments opposing the project style guide
- drivers/masterguard.c: drop trailing whitespaces
- drivers/liebert-esp2.c: rectify whitespaces
- drivers/liebert-esp2.c: drop trailing whitespaces
- drivers/isbmex.c: rectify whitespaces
- drivers/isbmex.c: drop trailing whitespaces
- drivers/gamatronic.h: rectify whitespaces
- drivers/dummy-ups.c: drop trailing whitespaces
- drivers/bestups.c: drop trailing whitespaces
- drivers/bestfortress.c: rectify whitespaces
- drivers/bestfcom.c: rectify whitespaces
- drivers/belkinunv.c: drivers/belkin.c: rectify whitespaces
- drivers/belkin.c: drop trailing whitespaces
- drivers/bcmxcp.c: fix leading whitespaces

#### **2.1197 2020-11-04 Jim Klimov <jimklimov@gmail.com>**

- drivers/solis.c: Update solis.c Drop temporary unicode comment for PR
- drivers/nutdrv\_qx\_voltronic.c: Update nutdrv\_qx\_voltronic.c Drop temporary comment with unicode for PR

#### **2.1198 2020-11-04 Jim Klimov <jim@jimklimov.com>**

- clients/upssched.c: main(): find use for argc
  - clients/upsmon.c: sigpipe(): find use for sig
  - clients/upsset.c: print\_rw(): find use for upsname
  - clients/upscmd.c: increase buffers to avoid overflow (warnings)
  - clients/upsrw.c: increase buffers to avoid overflow (warnings)
  - clients/upssched.c: increase buffers to avoid overflow (warnings)
  - drivers/al175.c: instcmd(): find use for "extra"
  - drivers/serial.c: mark up NUT\_UNUSED\_VARIABLEs
  - clients/upssched.c: mark up NUT\_UNUSED\_VARIABLEs
  - clients/upsmon.c: mark up NUT\_UNUSED\_VARIABLEs
  - clients/upsset.c: mark up NUT\_UNUSED\_VARIABLEs
  - clients/upsimage.c, clients/upsstats.c: clients/upsimage.c: mark up NUT\_UNUSED\_VARIABLEs
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- clients/upsstats.c: mark up NUT\_UNUSED\_VARIABLES
  - clients/upslog.c: mark up NUT\_UNUSED\_VARIABLES
  - clients/upsclient.c: mark up NUT\_UNUSED\_VARIABLES for ifdef-ed codepaths
  - include/common.h: introduce NUT\_UNUSED\* macros to mark up codebase
  - drivers/bcmxcp.c: fix info\_lkp\_t arrays to consider fourth "nuf" field
  - clients/upsc.c: quiesce -Wimplicit-fallthrough=3 warnings about fall-through in switch
  - common/snprintf.c: quiesce -Wimplicit-fallthrough=3 warnings about fall-through in switch
  - include/common.h: introduce NUT\_UNUSED\* macros to mark up codebase
  - .travis.yml: .travis.yml : enable "-Wextra -Weverything" for clang (follow-up to [issue #823](#))
  - .travis.yml: .travis.yml : enable "-Wextra" for newer gcc versions on Linux (follow-up to [issue #823](#))
  - .travis.yml: .travis.yml : enable "-Wextra" for default gcc versions on Linux (follow-up to [issue #823](#))
  - configure.ac: revise the fix for AC\_PROG\_LIBTOOL to only revert settings already passed to the compiler (that older releases may not understand if we just force them)
  - configure.ac: configure.ac : work around libtool weakness seen by
  - configure.ac: configure.ac : work around libtool weakness seen by pedantic compilers
  - ci\_build.sh: do not hide autogen.sh stderr
  - ci\_build.sh: if configure failed, sleep a bit before dumping config.log
  - drivers/bcmxcp.c: drop trailing whitespaces
  - drivers/bcmxcp.h: drop trailing whitespaces
  - drivers/serial.c: drop trailing whitespaces
  - clients/upssched.c: drop trailing whitespaces
  - clients/upsmon.c: drop trailing whitespaces
  - clients/upsset.c: drop trailing whitespaces
  - clients/upsimage.c: drop indented whitespaces
  - clients/upsstats.c: drop trailing whitespaces
  - clients/upslog.c: drop trailing whitespaces
  - clients/upsc.c: drop trailing whitespaces
  - clients/upsclient.c: drop trailing whitespaces
  - common/snprintf.c: rectify whitespace
  - configure.ac: Fix [issue #833](#) for (sys/)termios.h on BSD ... And generally check if we CAN build serial drivers before trying to (and/or guessing if we should try).
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**2.1199 2020-11-03 Jim Klimov <jim@jimklimov.com>**

- .travis.yml: comment for exploring ways to get 32-bit travis builds
- .travis.yml: Issue #823 follow-up: add explicitly x86 32-bit builds in Travis CI
- ci\_build.sh: ci\_build.sh : if configure script fails, dump its log before exiting
- .travis.yml: .travis.yml : rephrase some comments
- .travis.yml: .travis.yml : separate the "\_matrix\_gnustd\_nowarn"
- .travis.yml: Issue #823 follow-up: support branches named like "fightwarn" to build more test cases in Travis CI (actually enable those build matrices)
- .travis.yml: Issue #823 follow-up: support branches named like "fightwarn" to build more test cases in Travis CI

**2.1200 2020-11-03 Eric Clappier <ericclappier@eaton.com>**

- drivers/eaton-ats16-mib.c: Apply patch "Nut-scanner fix for discovery ats16 with legacy NMC and newer Network-M2"

**2.1201 2020-10-26 Arnaud Quette <ArnaudQuette@eaton.com>**

- drivers/eaton-pdu-marlin-mib.c: snmp-ups: fix outlet ID on Eaton ePDU Tie outlet ID to a real OID, to avoid erroneous indexes (-1, 0)
- docs/nut-names.txt, drivers/eaton-pdu-marlin-mib.c: snmp-ups: fix Eaton ePDU switch ability Expose a general switchability of the unit, using outlet.switchability, along with a more suitable per-outlet mechanism

**2.1202 2020-10-25 Jim Klimov <jim@jimklimov.com>**

- docs/man/Makefile.am: docs/man/Makefile.am : @echo diagnostic messages without a trace by default

**2.1203 2020-10-22 Arnaud Quette <ArnaudQuette@eaton.com>**

- drivers/main.c: Fix dstate init call WRT data dump Closes: <https://github.com/networkupstools/nut/issues/835>

**2.1204 2020-10-15 Jim Klimov <jim@jimklimov.com>**

- docs/man/Makefile.am: docs/man/Makefile.am : in check-man-\* targets, count the checked files (to see better the cases where none were available)
- docs/man/Makefile.am: docs/man/Makefile.am : typo fix ">&@" ⇒ ">&2" for stderr

**2.1205 2020-10-13 Jim Klimov <jim@jimklimov.com>**

- .travis.yml: .travis.yml (#823) : in default builds, disable whatever is not in "\_matrix\_required"
- .travis.yml: .travis.yml (#823) : define a \_matrix\_linux and \_matrix\_all groupings
- .travis.yml: .travis.yml (#823) : clarify the distro-dependent relations of matrix jobs as required and allowfail per distro

**2.1206 2020-10-12 amccartney <andrew.mccartney@ametech.com>**

- docs/man/usbhid-ups.txt, drivers/powervar-hid.c: Changes per NUT review comments. Removed info fields from polling. Added company/contributor info. Updated docs/man/usbhid-ups.txt
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**2.1207 2020-10-12 Konstantin Gizdov <[kgizdov@gmail.com](mailto:kgizdov@gmail.com)>**

- drivers/usbhid-ups.c: address some comments

**2.1208 2020-10-12 Jim Klimov <[jimklimov@gmail.com](mailto:jimklimov@gmail.com)>**

- docs/man/usbhid-ups.txt: Update usbhid-ups.txt Rearranged lines to keep "all" block together, and finish the list item with a comma without much context change ;)
- docs/nut.dict: Update nut.dict for [PR #733](#) Add new product name and vendor keywords
- configure.ac: Update configure.ac Whitespace mess
- .travis.yml: .travis.yml (#823) : win bash has no time

**2.1209 2020-10-12 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>**

- docs/acknowledgements.txt: revise the last paragraph for listing corporate contributors
- docs/nutdrv\_qx-subdrivers.txt: revise a few typos
- docs/configure.txt: update for gdlb pkg-config support (follow-up to [#809](#))
- docs/configure.txt: update for gdlb pkg-config support (follow-up to [#809](#))
- docs/man/upsd.conf.txt: mention that ALLOW\_NO\_DEVICE envvar (e.g. from nut.conf) can override the setting in upsd.conf
- conf/nut.conf.sample: fix ALLOW\_NO\_DEVICE example to "export" it on a separate line
- .travis.yml: ci\_build.sh (#823) : add gnu99-clang-win-nowarn
- ci\_build.sh: ci\_build.sh (#823) : only call dpkg on linux
- ci\_build.sh: ci\_build.sh (#823) : investigate win autogen
- .travis.yml: .travis.yml (#823) : fix delivery of ccache to win builds

**2.1210 2020-10-11 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>**

- .travis.yml: .travis.yml (#823) : do not cache /usr/local/Cellar on osx, it is too big and rejected anyway
  - .travis.yml: .travis.yml (#823, [#828](#)) : extend matrix for osx builds with -std=gnu\* variants that seem to pass
  - .travis.yml: .travis.yml (#823) : for osx builds, avoid "brew update" by default, that since 2.0.0 release involves cleanup automatically and takes a needless 15-30 minutes hit on a Travis worker When desired we can set HOMEBREW\_NO\_AUTO\_UPDATE customizable per run
  - .travis.yml: .travis.yml (#823) : for osx builds, add ccache; and only bother for asciidoc \+ docbook-xsl if building docs
  - .travis.yml: .travis.yml (#823) : cache locations related to Brew between runs
  - .travis.yml: .travis.yml (#823) : for now, enable CI\_TRACE on Win always (to find where ci\_build.sh script dies)
  - .travis.yml: .travis.yml : set jobs.fast\_finish:true
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**2.1211 2020-10-10 Jim Klimov <jim@jimklimov.com>**

- .travis.yml: .travis.yml (#823) : group tests into YAML \_matrix-\* lists to pick some easier for particular runs on dev branches
- .travis.yml: .travis.yml (#823) : xcode6.4 is deprecated on Travis, try a newer oldest alternative (7.3)
- .travis.yml: .travis.yml (#823) : add c99-clang-xcode10.2-warn
- .travis.yml: .travis.yml (#823) : reorder some allowed\_failure tests to group logically
- .travis.yml: .travis.yml (#823) : drop gnu14-gcc-8-nowarn (no C14), add gnu17-clang-8-nowarn
- .travis.yml: .travis.yml (#823) : drop gnu14 and gnu17 attempts with gcc-7; try gnu14 with gcc-8
- .travis.yml: .travis.yml (#823) : mark gnu17-gcc-9-nowarn as OK
- ci\_build.sh: .travis.yml (#823) : give up on gdlb (--with-cgi) on win for now
- .travis.yml: .travis.yml (#823) : add a few MacOS X and Windows\+clang9 build combos for diversity
- .travis.yml: .travis.yml (#823) : add more compilers and standards to try, to collect max diags: c17-clang-8-warn gnu17-gcc-9-warn
- .travis.yml: .travis.yml (#823) : add more compilers and standards to try : gnu14-gcc-7-nowarn gnu17-gcc-7-nowarn gnu17-gcc-9-nowarn c99-clang-3.5-nowarn c17-clang-8-nowarn
- .travis.yml: .travis.yml (#823) : specify "compiler" in our handmade matrix to hint to Travis which env we want
- .travis.yml: .travis.yml (#823) : comment the reference of C/C++ standard support by gcc and clang versions used
- .travis.yml: .travis.yml : reshuffle default required builds order to have the quicker ones more likely to fail in development iterations to run first
- .travis.yml: .travis.yml : move BUILD\_TYPE=default and BUILD\_TYPE=default-tgt:distcheck-light into common stack for manageability
- .travis.yml: declare linux "dist" that we want by default
- ci\_build.sh: handle runs with unspecified BUILD\_TYPE
- ci\_build.sh: report if PATH includes ccache, and if CC and CXX understand passed C(XX)FLAGS
- ci\_build.sh: report values of PATH, CC and CXX (and versions of the latter) before adding CCACHE into the mix

**2.1212 2020-10-09 Konstantin Gizdov <kgizdov@gmail.com>**

- drivers/usbhid-ups.c: more compact logic
  - drivers/usbhid-ups.c: remove leftover lines
  - drivers/usbhid-ups.c: lay the groundwork for CyberPower UT cputquirk
  - drivers/usbhid-ups.c: fix indentation style
-

**2.1213 2020-10-09 Jim Klimov <jim@jimklimov.com>**

- docs/developers.txt: docs/developers.txt : document coding style examples for tabs vs spaces
- docs/developers.txt: docs/developers.txt : document a "for loop initial declarations are only allowed in C99 or C11 mode" portability offense
- docs/developers.txt: docs/developers.txt : document the official C99\+ standard support and that we have CI to help make sure what is upheld
- .travis.yml: .travis.yml : update comment for the NUT\_MATRIX\_TAG block of tests
- .travis.yml: .travis.yml : fix comment-naming for cDefault-gcc-default-nowarn/gnu99-gcc-default-nowarn primary not-failing case to keep up
- .travis.yml: .travis.yml : mark gnu89-gcc-default-nowarn as a not-failing case to keep up
- drivers/solis.c: drivers/solis.c : fix C89 for-loop var declarations
- .travis.yml: .travis.yml : mark gnu11-gcc-7-nowarn gnu99-clang-5.0-nowarn as not-failing cases to keep up
- .travis.yml: .travis.yml : add gnu89-gcc-default-nowarn to the test matrix to check if at least the basic syntax is okay (note that current warnings for C89 seem to indicate faults that may be fatal in binary code)
- .travis.yml: .travis.yml : mark gnu99-gcc-7-nowarn as a not-failing case to keep up
- .travis.yml: .travis.yml : add gnu99-clang-5.0-nowarn to the test matrix (hope clang can do GNU C dialect)
- .travis.yml: .travis.yml : add gnu11-gcc-7-nowarn to the test matrix

**2.1214 2020-10-08 Jim Klimov <jim@jimklimov.com>**

- .travis.yml: .travis.yml : add c11-clang-5.0-nowarn and c11-clang-5.0-warn to the matrix
  - .travis.yml: .travis.yml : add gnu99-gcc-7-nowarn c99-clang-5.0-nowarn to test matrix (expected to be green)
  - .travis.yml: .travis.yml : warning comment about multitoken CFLAGS and distcheck
  - ci\_build.sh: ci\_build.sh : spell case statements in consistent style
  - ci\_build.sh: ci\_build.sh : define default-all-errors separately from default-alldrv
  - ci\_build.sh: ci\_build.sh : revise multi-token CONFIG\_OPTS entries
  - .travis.yml, ci\_build.sh: .travis.yml / ci\_build.sh : define a BUILD\_TYPE=default-all-errors specifically to list all files with errors fatal for current build config (but not list whatever succeeds)
  - ci\_build.sh: ci\_build.sh : allow to stack multi-token CC="ccache clang" and such
  - ci\_build.sh: ci\_build.sh : recognize is\_clang() for ccache wrapping
  - ci\_build.sh: ci\_build.sh : recognize is\_clang()
  - .travis.yml, ci\_build.sh: Issue #823 : Set up Travis CI testing for more compiler implementations and C/C+\+ standards
  - ci\_build.sh: ci\_build.sh : fix a few historic typos
  - ci\_build.sh: make sure we build all possible binaries in default-alldrv mode
  - drivers/Makefile.am: drivers/Makefile.am : drop redundant pijuice\_SOURCES listed in wrong section
-

**2.1215 2020-10-08 Alexey Rodionov <[alexey.rodionov@red-soft.ru](mailto:alexey.rodionov@red-soft.ru)>**

- .../python/app/locale/ru/LC\_MESSAGES/NUT-Monitor.mo, scripts/python/app/locale/ru/ru.po: Fixed two typos and translation of the term load
- .../app/locale/ru/LC\_MESSAGES/NUT-Monitor.mo, scripts/python/app/locale/ru/ru.po: Additional corrections of the Russian translation
- .../app/locale/ru/LC\_MESSAGES/NUT-Monitor.mo, scripts/python/app/locale/ru/ru.po: Fixed typos, made changes according to comments

**2.1216 2020-10-07 Jim Klimov <[jimklimov@gmail.com](mailto:jimklimov@gmail.com)>**

- drivers/snmp-ups.c: Update snmp-ups.c Fixed indentation for multiline if-clause
- clients/upsmon.c: Update upsmon.c Log a warning if an UPS is both OB\+LB+Calibrating so due to this combo we do not tell the host to shut down gracefully. Comment some ideas to work around such situation in a smarter way if we have additional info to know if we are in a safe environment just calibrating, or a known-unsafe one with a real outage in progress.
- common/state.c: state.c: state\_delinfo(): comment on immutables For state\_delinfo() not deleting immutable variables, comment this near the function and log for runtime hits to help troubleshooting.

**2.1217 2020-10-07 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>**

- docs/man/snmp-ups.txt, docs/nut.dict: Update snmp-ups manpage for symmetrathreephase quirk to complete [PR #788](#)
- docs/man/Makefile.am, docs/man/index.txt, docs/man/pijuice.txt, docs/nut.dict: Add initial manpage for pijuice driver, hastily ripped off one for asem driver
- drivers/pijuice.c: pijuice.c cleanup : rectify leading indentations
- drivers/pijuice.c: pijuice.c cleanup : rectify tabulation of definitions
- drivers/pijuice.c: pijuice.c cleanup : comment end of big block of nested #if macros
- drivers/pijuice.c: pijuice.c cleanup : rectify indentation and blank-line the default return
- drivers/pijuice.c: pijuice.c cleanup : indent stacked #if\* macros
- drivers/pijuice.c: pijuice.c cleanup : trailing whitespaces

**2.1218 2020-10-06 Arnaud Quette <[ArnaudQuette@eaton.com](mailto:ArnaudQuette@eaton.com)>**

- drivers/main.c: Driver datadump improvements Do not switch to statepath, nor write pidfile, when using the datadump (-s -d) mode

**2.1219 2020-09-22 Ross Williams <[ross@ross-williams.net](mailto:ross@ross-williams.net)>**

- clients/upsmon.c, clients/upsmon.h: Do not shutdown if UPS is performing calibration Some UPS calibration procedures (e.g. CyberPower) involve discharging the battery below the LB level, but we don't want systems to shut down if the UPS is only on battery because it is calibrating.

**2.1220 2020-08-12 Konstantin Gizdov <[kgizdov@gmail.com](mailto:kgizdov@gmail.com)>**

- drivers/usbhid-ups.c: initial patch that works
-



**2.1221 2020-08-08 Sean McBride <[sean@rogue-research.com](mailto:sean@rogue-research.com)>**

- clients/cgilib.c, clients/nutclient.cpp, clients/upsmon.c, clients/upsset.c, drivers/all175.c, drivers/apcsmart-old.c, drivers/asem.c, drivers/bcmxcp.c, drivers/belkinunv.c, drivers/dstate.c, drivers/gamatronic.c, drivers/isbmex.c, drivers/mge-utalk.c, drivers/nut-libfreeipmi.c, drivers/nutdrv\_qx\_voltronic-qs-hex.c, drivers/nutdrv\_qx\_voltronic.c, drivers/oneac.c, drivers/powercom.c, drivers/rhino.c, drivers/riello\_ser.c, drivers/snmp-ups.c, drivers/solis.c, drivers/tripplite\_usb.c, drivers/tripplitesu.c, server/netssl.c, tools/nut-scanner/scan\_nut.c: WIP: Fixed various warnings and errors identified by cppcheck Specifically: arrayIndexThenCheck,drivers/qs-hex.c:222,style,Array index *i* is used before limits check. arrayIndexThenCheck,drivers/oneac.c:176,style,Array index *i* is used before limits check. clarifyCalculation,drivers/belkinunv.c:1063,style,Clarify calculation precedence for & and ?. clarifyCalculation,drivers/belkinunv.c:922,style,Clarify calculation precedence for & and ?. clarifyCalculation,drivers/powercom.c:677,style,Clarify calculation precedence for & and ?. clarifyCalculation,drivers/powercom.c:732,style,Clarify calculation precedence for & and ?. clarifyCondition,drivers/asem.c:248,style,Boolean result is used in bitwise operation. Clarify expression with parentheses. duplicateConditionalAssign,drivers/solis.c:725,style,The statement *if (DaysOnWeek!=DaysOffWeek) DaysOnWeek=DaysOffWeek* is logically equivalent to *DaysOnWeek=DaysOffWeek*. duplicateExpression,clients/cgilib.c:49,style,Same expression on both sides of  $\mathbb{N}$ . duplicateExpression,drivers/nutdrv\_qx\_voltronic.c:270,style,Same expression on both sides of  $\mathbb{N}$ . duplicateExpression,drivers/nutdrv\_qx\_voltronic.c:303,style,Same expression on both sides of  $\mathbb{N}$ . duplicateExpression,drivers/nutdrv\_qx\_voltronic.c:303,style,Same expression on both sides of  $\mathbb{N}$ . identicalInnerCondition,drivers/tripplite\_usb.c:579,warning,Identical inner *if* condition is always true. incorrectLogicOperator,drivers/dstate.c:1170,warning,Logical conjunction always evaluates to false: *c2 && !c2*. incorrectLogicOperator,drivers/rhino.c:190,warning,Logical disjunction always evaluates to true: *BattVoltage > 129 || BattVoltage < 144*. incorrectStringBooleanError,drivers/mge-utalk.c:899,warning,Conversion of string literal "*\r\n*" to bool always evaluates to true. invalidPrintfArgType\_sint,clients/upsset.c:393,warning,%d in format string (no. 1) requires *int* but the argument type is *unsigned int*. invalidPrintfArgType\_sint,clients/upsset.c:676,warning,%d in format string (no. 1) requires *int* but the argument type is *unsigned int*. invalidPrintfArgType\_sint,drivers/isbmex.c:178,portability,%d in format string (no. 1) requires *int* but the argument type is *ssize\_t {aka signed long}*. invalidPrintfArgType\_sint,drivers/tripplitesu.c:435,warning,%d in format string (no. 1) requires *int* but the argument type is *unsigned int*. knownConditionTrueFalse,clients/upsmon.c:919,style,Condition *un* is always true knownConditionTrueFalse,drivers/gamatronic.c:111,style,Condition *ret>=0* is always true knownConditionTrueFalse,drivers/powercom.c:696,style,Condition *battval>bat0* is always true knownConditionTrueFalse,drivers/solis.c:485,style,Condition *AppPower==0* is always false knownConditionTrueFalse,tools/nut-scanner/scan\_nut.c:180,style,Condition *numa>=3* is always true memleak,clients/upsset.c:664,error,Memory leak: *val nullptrRedundantCheck,drivers/snmp-ups.c:1554,warning,Either the condition info\_template==NULL is redundant or there is possible null pointer dereference: info\_template. pointerLessThanZero,drivers/nut-libfreeipmi.c:864,style,A pointer can not be negative so it is either pointless or an error to check if it is. pointerLessThanZero,drivers/nut-libfreeipmi.c:884,style,A pointer can not be negative so it is either pointless or an error to check if it is. postfixOperator,clients/nutclient.cpp:896,performance,Prefer prefix *+|-* operators for non-primitive types. redundantInitialization,drivers/all175.c:1175,style,Initialization for *reply*. The initialized value is overwritten before it is read. uninitMemberVar,clients/nutclient.cpp:504,warning,Member variable *TcpClient::\_timeout* is not initialized in the constructor. uninitMemberVar,clients/nutclient.cpp:513,warning,Member variable *TcpClient::\_timeout* is not initialized in the constructor. uninitvar,server/netssl.c:546,error,Uninitialized variable: *ret* unsignedLessThanZero,drivers/apcsmart-old.c:928,style,Checking if unsigned expression *sdtype* is less than zero. unsignedPositive,drivers/bcmxcp.c:785,style,Unsigned expression *commandByte* can't be negative so it is unnecessary to test it. uselessAssignmentPtrArg,drivers/riello\_ser.c:105,warning,Assignment of function parameter has no effect outside the function. Did you forget dereferencing it?*

**2.1222 2020-07-29 Fabrice Fontaine <[fontaine.fabrice@gmail.com](mailto:fontaine.fabrice@gmail.com)>**

- m4/nut\_check\_libgd.m4: nut\_check\_libgd.m4: try to find gd through pkg-config gdlb-config has been dropped from version 2.3.0 with <https://github.com/libgd/libgd/commit/d62f608c7c4a814c70d4ba777725e3e62d9e2cde>

**2.1223 2020-07-21 Luka Kovačič <[luka.kovacic@buitin.io](mailto:luka.kovacic@buitin.io)>**

- drivers/delta-hid.c: drivers: delta-hid: Update entry flags appropriately Update entry flags to use *HU\_FLAG\_QUICK\_POLL* for status and alarm variables, *HU\_FLAG\_SEMI\_STATIC* for variables that can change on user changes and *HU\_FLAG\_STATIC* for variables that don't need to be updated after init.

**2.1224 2020-07-17 Alexey Rodionov <[alexey.rodionov@red-soft.ru](mailto:alexey.rodionov@red-soft.ru)>**

- `.../app/locale/ru/LC_MESSAGES/NUT-Monitor.mo`, `scripts/python/app/locale/ru/ru.po`: Add Russian translation for NUT-Monitor

**2.1225 2020-07-11 Matt Merhar <[mattmerhar@protonmail.com](mailto:mattmerhar@protonmail.com)>**

- `docs/security.txt`: Fix typo in TCP Wrappers documentation

**2.1226 2020-07-02 Luka Kovačič <[luka.kovacic@bultin.io](mailto:luka.kovacic@bultin.io)>**

- `drivers/Makefile.am`, `drivers/delta-hid.c`, `drivers/delta-hid.h`, `drivers/usbhid-ups.c`, `scripts/upower/95-upower-hid.rules`: `drivers: delta-hid`: Add Delta HID subdriver Delta HID subdriver is added to support Delta RT Series, Single Phase, 1/2/3 kVA UPS devices. The driver was tested and tweaked on Delta RT 3 kVA UPS.

**2.1227 2020-06-15 Florian Bernd <[flobernd@users.noreply.github.com](mailto:flobernd@users.noreply.github.com)>**

- `drivers/apcupsd-ups.c`: Do not overwrite `poll_interval` in `apcupsd-ups` This commit removes the hardcoded poll-interval of 60 seconds and instead only makes sure that the user-defined interval is greater than a minimum-interval.
- `drivers/apcupsd-ups.c`, `drivers/apcupsd-ups.h`: Do not call `dstate_delinfo()` for LB-condition variables This commit fixes the `ignorelb` flag for the `apcupsd-ups` driver. Previously "battery.charge" and "battery.runtime" was cleared before invoking `status_commit()` which caused the LB-condition to always be false.
- `common/state.c`: Respect `ST_FLAG_IMMUTABLE` in `dstate_delinfo()`

**2.1228 2020-06-11 Peter Klein <[kleinpa00@gmail.com](mailto:kleinpa00@gmail.com)>**

- `clients/nutclient.cpp`, `clients/nutclient.h`: Remove dynamic exception specifications from `clients/nutclient.cpp` These are invalid in `c\+\+17` and must be removed for compatibility with modern compilers.

**2.1229 2020-06-11 Eric Zinnikas <[eric@zinnikas.org](mailto:eric@zinnikas.org)>**

- `drivers/cyberpower-mib.c`: Support CyberPower RMCARD205

**2.1230 2020-06-02 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>**

- `drivers/apc-ats-mib.c`: `apc-ats-mib.c` : use a `..._MODEL_NAME` macro and bump version to complete earlier fix

**2.1231 2020-05-31 Timothy Pearson <[tpearson@raptorengineering.com](mailto:tpearson@raptorengineering.com)>**

- `drivers/snmp-ups.c`: Fix long-standing transfer threshold read bug with APCC 3 phase Symmetra units

**2.1232 2020-05-14 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- `tools/nut-scanner/scan_snmp.c`: SNMP scan: check the match dup on `mib` instead of `sysoid` This actually avoids duplication when multiple sysOIDs are declared for the same MIB

**2.1233 2020-05-01 gprints <[g.s@arcor.de](mailto:g.s@arcor.de)>**

- `drivers/liebert-hid.c`: Update `liebert-hid.c`
-

**2.1234 2020-04-29 Jim Klimov <jim@jimklimov.com>**

- scripts/systemd/nut-driver-enumerator-daemon-activator.service.in: nut-driver-enumerator-daemon-activator.service : use older Service/StartLimitInterval for broader compatibility Should help avoid this warning and unachieved functionality on systemd-229 and older: \* systemd[1]: [/lib/systemd/system/nut-driver-enumerator-daemon-activator.service:30] Unknown lvalue *StartLimitIntervalSec* in section *Service*

**2.1235 2020-04-28 Arnaud Quette <Arnaud.Quette@free.fr>**

- drivers/eaton-ats16-mib.c: snmp-ups: cleanup Eaton ATS16 with new Network-M2 Duplicate the definition, as a workaround to the bugged scanner data extraction, and point at the same eaton\_ats16 name, since there is no interest in separating mib2nut entries pointing at the same MIB mapping
- tools/nut-snmppinfo.py: Fix Python issue in the SNMP scan extractor
- drivers/huawei-mib.c: Huawei MIB: add a counter check OID This avoids getting a false result when trying all OIDs, due to the use of Net SNMP sysOID (.1.3.6.1.4.1.8072.3.2.10), found in various implementations

**2.1236 2020-04-21 Jim Klimov <jim@jimklimov.com>**

- scripts/augeas/nutupsdconf.aug.in: nutupsdconf.aug.in: complete the ALLOW\_NO\_DEVICE definition
- conf/nut.conf.sample, conf/upsd.conf.sample, docs/man/upsd.conf.txt, scripts/augeas/nutupsdconf.aug.in, scripts/augeas/test-s/test\_nut.aug, server/conf.c, server/upsd.c, server/upsd.h: Rename NUT\_NOCONF\_ALLOWED to ALLOW\_NO\_DEVICE as suggested in PR comments
- conf/nut.conf.sample: nut.conf.sample: update the comment about NUT\_NOCONF\_ALLOWED
- server/upsd.c: upsd.c : CONST char\* temp "envvar" as we do not change the string later

**2.1237 2020-04-20 Jim Klimov <jim@jimklimov.com>**

- scripts/systemd/nut-driver-enumerator-daemon-activator.service.in: nut-driver-enumerator-daemon-activator.service.in : disable quick-start throttling

**2.1238 2020-04-17 Jim Klimov <jim@jimklimov.com>**

- conf/upsd.conf.sample, docs/man/upsd.conf.txt: Re-spell "Boolean" to satisfy spell-checker
- conf/upsd.conf.sample, docs/man/upsd.conf.txt, scripts/augeas/nutupsdconf.aug.in, scripts/augeas/tests/test\_nut.aug, server/conf.c, server/upsd.c, server/upsd.h: Allow to configure NUT\_NOCONF\_ALLOWED option via upsd.conf

**2.1239 2020-04-17 Arnaud Quette <Arnaud.Quette@Eaton.com>**

- drivers/eaton-ats16-mib.c, drivers/eaton-ats16-mib.h, drivers/snmp-ups.c: snmp-ups: add Eaton ATS16 with new Network-M2 Add support for Eaton ATS16 using the new Network-M2 communication cards, and including a fixed sysOID fingerprint

**2.1240 2020-04-03 Jim Klimov <jim@jimklimov.com>**

- clients/nutclient.cpp: sanity-check getDevicesVariableValues() called with empty device list
-

**2.1241 2020-03-14 Jim Klimov <jim@jimklimov.com>**

- docs/nut.dict: nut.dict : fixes for NUT\_NOCONF\_ALLOWED addition
- scripts/systemd/nut-driver-enumerator.service.in, scripts/systemd/nut-driver@.service.in, scripts/systemd/nut-monitor.service.in, scripts/systemd/nut-server.service.in: SystemD service units: source EnvironmentFile=...nut.conf if available
- conf/nut.conf.sample: nut.conf.sample : prepare an uncommentable line for NUT\_NOCONF\_ALLOWED=true
- server/upsd.c: introduce support for envvar NUT\_NOCONF\_ALLOWED=true to allow starting with 0 ups.conf sections

**2.1242 2020-02-19 Jim Klimov <jim@jimklimov.com>**

- scripts/upsdrvsvctlnut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in: when autostarting/reloading upsd (nut-server), do it for previously "failed" unit too
- scripts/upsdrvsvctlnut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in: do systemctl daemon-reload between editing a unit definition and auto-starting it

**2.1243 2020-02-09 Laurent Bigonville <bigon@users.noreply.github.com>**

- scripts/python/app/nut-monitor.appdata.xml, scripts/python/app/nut-monitor.desktop: Update the appdata file to the latest version of the specification (#727) \* nut-monitor: Update the appdata file to the latest version of the specification Fixes: #724 \* nut-monitor: Update the desktop file to follow the last version of the specification

**2.1244 2020-02-09 Jim Klimov <jim@jimklimov.com>**

- docs/Makefile.am, docs/documentation.txt, docs/nut.dict, docs/solaris-usb.txt, scripts/Solaris/README: Add docs/solaris-usb.txt for posterity (#755)

**2.1245 2020-01-20 Jim Klimov <jim@jimklimov.com>**

- NEWS: described nut-driver-enumerator introduction

**2.1246 2020-01-15 Clappier, Eric <EricClappier@eaton.com>**

- drivers/ietf-mib.c: Issue corection filter ietf mib (cherry picked from commit 93a64efbdae28355be60329b651d3c42c7ddedf8)
- tools/nut-scanner/scan\_snmp.c, tools/nut-snmpinfo.py: Fix nutscan snmp (cherry picked from commit bc5a6c218e21c0af454007e292)
- drivers/apc-ats-mib.c: Issue correction no pointer null at beginning of the SNMP IDs device table (cherry picked from commit 9d167892a36bf75d30839e7d4d6b53f037751666)

**2.1247 2020-01-08 Fernando Chaves <38504809+fernandolcx@users.noreply.github.com>**

- drivers/apcupsd-ups.h: apcupsd-ups: add real power and current variables LOAD\_W ⇒ ups.realpower LOADAPNT ⇒ power.percent OUTCURNT ⇒ output.current LOAD\_VA ⇒ ups.power NOMAPNT ⇒ ups.power.nominal Closes: <https://github.com/networkupstools/nut/pull/753>

**2.1248 2019-11-07 Arnaud Quette <ArnaudQuette@Eaton.com>**

- drivers/powerware-mib.c: SNMP Eaton Gb Network Card: various data completion \* fix reading of input.voltage, related to the ending ".0", \* fix existing commands handling, \* add support for the load segment (managed outlets), including status information and commands
-

**2.1249 2019-11-06 Charles Lepple <clepple+nut@gmail.com>**

- data/driver.list.in: HCL: Add PowerWalker VFI 1000 CG PF1 Closes: <https://github.com/networkupstools/nut/issues/648>

**2.1250 2019-09-25 Arnaud Quette <ArnaudQuette@Eaton.com>**

- drivers/snmp-ups.c: Fix false positive when communication is lost

**2.1251 2019-09-19 Arnaud Quette <ArnaudQuette@Eaton.com>**

- drivers/eaton-pdu-marlin-mib.c, drivers/powerware-mib.c: SNMP Eaton EMP002: handle sensor presence Sensor may not be present (or connected). However, the values (temperature, humidity, ...) are still available, but should not be considered
- drivers/eaton-pdu-marlin-helpers.c: SNMP Eaton ePDU: always return celsius for temperature since the value reading is always adapted to celsius

**2.1252 2019-09-18 andrewmccartney <andrew.mccartney@ametek.com>**

- drivers/Makefile.am, drivers/libusb.c, drivers/powervar-hid.c, drivers/powervar-hid.h, drivers/usbhid-ups.c: Changes to add support for Powervar UPM as usb-hid UPS. Includes adding a report index to libusb.c in order to handle the composite device in the UPM.

**2.1253 2019-09-12 Arnaud Quette <ArnaudQuette@Eaton.com>**

- docs/nut-names.txt: Fix wording on ambient collection
- drivers/eaton-pdu-marlin-helpers.c, drivers/eaton-pdu-marlin-mib.c, drivers/powerware-mib.c, drivers/snmp-ups.c, drivers/snmp-ups.h: Typo fix: sorry Mr Fahrenheit And thanks to Jim Klimov for the review!
- drivers/eaton-pdu-marlin-mib.c: Fix compilation warning

**2.1254 2019-09-12 Andrew Anderson <andrew@lirn.net>**

- drivers/pijuice.c: Conditionally include linux/i2c.h Check for I2C\_FUNC\_I2C to avoid errors caused by conflicts between linux/i2c-dev.h and linux/i2c.h
  - configure.ac, drivers/pijuice.c: Add more granular I2C support checks Accommodate one more variation of SMBUS/I2C support where both the headers and the libraries exist and are usable.
  - drivers/pijuice.c: Pull over the latest development version Clean up the upsdebugX() labels Pull the conditional I2C support code closer to the includes block Don't report battery temp as UPS temp Warn if we adjust shutdown\_delay
  - drivers/pijuice.c: Fix the length passed into memset()
  - drivers/asm.c: Add pijuice I2C driver for PiJuice HAT 4/4 Update asem.c to compile cleanly by adding an include for <sys/ioctl.h>
  - configure.ac: Add pijuice I2C driver for PiJuice HAT 3/4 Check for both the i2c-tools 3.x and 4.x include files (i2c-dev.h/smbus.h) and set flags accordingly. Link with the i2c library file from i2c-tools 4.x if it is available.
  - drivers/Makefile.am: Add pijuice I2C driver for PiJuice HAT 2/4 Update the driver Makefile.am to add pijuice driver to the LINUX\_I2C\_DRIVERLIST
  - drivers/pijuice.c: Add pijuice I2C driver for PiJuice HAT 1/4 Add pijuice driver
-

**2.1255 2019-09-09 Arnaud Quette <ArnaudQuette@Eaton.com>**

- docs/nut-names.txt: nut-names: increase ambient collection Add several variables to the ambient collection, to support smart sensors like Eaton EMPDT1H1C2
- drivers/powerware-mib.c: SNMP Eaton Gb Network Card: support for EMPDT1H1C2
- drivers/eaton-pdu-marlin-helpers.c, drivers/eaton-pdu-marlin-helpers.h, drivers/eaton-pdu-marlin-mib.c: SNMP Eaton ePDU: support for EMPDT1H1C2
- drivers/snmp-ups.c, drivers/snmp-ups.h: snmp-ups: support for daisy chained ambient sensor

**2.1256 2019-09-02 Laurent Bigonville <bigon@bigon.be>**

- scripts/python/app/nut-monitor.desktop: nut-monitor: Drop the .png extension for the Icon in the .desktop file

**2.1257 2019-08-18 Laurent Bigonville <bigon@bigon.be>**

- scripts/python/Makefile.am, scripts/python/app/icons/256x256/nut-monitor.png, .../python/app/{ ⇒ icons/48x48}/nut-monitor.png, scripts/python/app/icons/64x64/nut-monitor.png, scripts/python/app/icons/scalable/nut-monitor.svg: nut-monitor: Add scalable, 64x64 and 256x256 icon for nut-monitor FTR, this icon comes from gnome-icon-theme 2.28

**2.1258 2019-07-30 Daniele Pezzini <hyouko@gmail.com>**

- drivers/nutdrv\_siemens\_sitop.c: nutdrv\_siemens\_sitop: move to the new "battery.charge.approx" var
- data/cmdvartab, docs/nut-names.txt: Add and document a new "battery.charge.approx" var

**2.1259 2019-07-22 rpveloso <rveloso@gmail.com>**

- drivers/solis.c: solis: avoid index out of bounds Since the parameter taken by autonomy\_calc() is used to index a couple of arrays of 5 positions and the variable `im`, which is passed to autonomy\_calc(), can be equal to 4, blindly incrementing it by one, when it's 4, leads to an index out of bounds.

**2.1260 2019-07-12 Spencer Shimko <spencer@quarksecurity.com>**

- drivers/triplite\_usb.c: Report load for Tripp Lite USB 3005 protocol The debug output for a device using the Tripp Lite 09ae 3005 protocol seems to show that the `ups.debug.L` is the load as noted on mailing list posts. Decode it and report it as `ups.load`. Tested on TRIPP LITE SMART500RT1U.

**2.1261 2019-07-11 Jim Klimov <jim@jimklimov.com>**

- scripts/Solaris/nut-driver.xml.in: Solaris/nut-driver.xml.in : constrain the impact of managing SMF instances for missing devices
- scripts/systemd/nut-driver@.service.in: `nut-driver@.service.in` : fix back templated `@SBINDIR@`
- scripts/systemd/nut-driver@.service.in: Problem: Attempts to start a `nut-driver@bogusname` actually run `upsdrvctl` on everything Solution: First check if service instance name is valid, then use it Should fix <https://github.com/42ity/nut/issues/87>

**2.1262 2019-07-10 Laurent Bigonville <bigon@bigon.be>**

- clients/Makefile.am, tools/nut-scanner/Makefile.am: libupsclient, libnutscan: Only export symbols part of the public API Fixes: [#713](#)

**2.1263 2019-07-09 Laurent Bigonville <bigon@bigon.be>**

- clients/upsclient.c, clients/upsmon.c, drivers/apcsmart.c, drivers/bcmxcp.h, drivers/bestuferrups.c, drivers/main.c, drivers/masterguard.c, drivers/metasys.c, drivers/mge-hid.c, drivers/mge-mib.c, drivers/nutdrv\_qx\_q1.c, drivers/nutdrv\_qx\_q1.h, drivers/optiups.c, drivers/solis.c, scripts/python/app/NUT-Monitor, tools/nut-scanner/nut-scanner.c: Fix several typos
- configure.ac, lib/libupsclient.pc.in, m4/nut\_check\_libnss.m4, m4/nut\_check\_libopenssl.m4: Use pkg-config module names instead of listing the libraries Fixes: #709

**2.1264 2019-07-02 Jim Klimov <jim@jimklimov.com>**

- common/common.c: common.c : BUILD\_64 not detected in some distros, needs stdint.h

**2.1265 2019-04-26 William Chase <wchome@freet.org>**

- drivers/bestfcom.c: Fix for Ferrups FE7000 "off" command (#692) "off" command for FE7000 required at least 5 seconds for the command to be accepted. Also should match the off with autostart or "o" with "a" to be consistent with the manual: <https://www.eaton.com/content/dam/eaton/products/backup-power-ups-surge-it-power-distribution/backup-power-ups/eaton-ferrups-tower-ups/eaton-ferrups-FE-QFE-userguide-.pdf> (o [time] a is how the manual references the "short" command)

**2.1266 2019-04-16 Ross Williams <ross@ross-williams.net>**

- drivers/snmp-ups.c: snmp-ups: add ability to set TimeTicks correctly (#687) \* snmp-ups: add ability to set TimeTicks correctly Driver had been setting read/write parameters as either Integer or String, but OIDs that expect TimeTicks cannot be set using an Integer. snmp-ups already supported getting TimeTicks correctly and had helper functions for setting TimeTicks, but logic had not been implemented in su\_setOID(). \* Missing semicolon ;-(
- snmp-ups: use NUT's str\_to\_long() in su\_setOID() Safer conversion from provided strings to instant command or read/write value. Omitted default value if !SU\_MODE\_INSTCMD because it is not possible for read/write variable functions to be called without a value (unlike instant commands).

**2.1267 2019-04-15 Jim Klimov <jim@jimklimov.com>**

- scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : optimize large string-emptiness tests
- scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : expose for debugging hook\_findSavedDeviceName and hook\_getSavedDeviceName
- scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : fix systemd\_findSavedDeviceName() to return expected values
- scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : avoid sub-shelling and varname clash in smf\_setSavedU and smf\_setSavedMD5()

**2.1268 2019-04-11 Jim Klimov <jimklimov@gmail.com>**

- drivers/eaton-pdu-marlin-mib.c, drivers/snmp-ups.c: [DNMY] Fix snmp templates (#681) \* eaton-pdu-marlin-mib.c : move "outlet.count" query higher \* snmp-ups.c : anticipate lack of OIDs in templates

**2.1269 2019-04-11 Jim Klimov <jim@jimklimov.com>**

- scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : in systemd\_getSavedDeviceName() strip quotes around returned DEVICE == "... " value
  - scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : escape the verbatim dollar in doublequotes
-



**2.1270 2019-04-05 Jim Klimov <jimklimov@gmail.com>**

- .travis.yml, Makefile.am, ci\_build.sh: Introduce shell script syntax checks (#675) \* Introduce shell script syntax checks \* Makefile.am : do not shellcheck/spellcheck by default as it can fail for external circumstances (e.g. missing tools) \* Makefile.am : visibly separate the "check-scripts-syntax" implementation (with current system shells) vs "shellcheck" which may get implemented differently (with external tools) in later iterations \* Makefile.am : update the check-scripts-syntax comment (clarify text, fix typo) \* Makefile.am : clarify the check-scripts-syntax vs shellcheck comment \* .travis.yml and ci\_build.sh : leave TBDs for future shellcheck tool integration \* ci\_build.sh : call both shellcheck and check-scripts-syntax targets; it does not duplicate the work and reports while one calls another for now - and will do two tests when they become independent
- configure.ac: configure.ac : fix mismatched usage of have\_cxx11 envvar (#689)
- server/conf.c: Problem: isdigit() receives a char\* instead of char (#690) Solution: as a quick fix, pick the first char of the string we pass. The proper fix would be to use the str\_\*() API for safe conversions, in a later iteration. See-also: <https://github.com/networkupstools/nut/issues/676>

**2.1271 2019-04-05 Jim Klimov <jim@jimklimov.com>**

- scripts/upsdrvsvctlnut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : typo fix in systemd\_findSavedDeviceName()

**2.1272 2019-04-01 Ross Williams <ross@ross-williams.net>**

- drivers/cyberpower-mib.c: cyberpower-mib: fix instant command declarations Had desired OID values in default value field. Also, default value for SU\_TYPE\_CMD should be NULL.
- drivers/cyberpower-mib.c: cyberpower-mib: got delay OID wrong Left off .0
- drivers/cyberpower-mib.c: cyberpower-mib: Add delay variables Add some read/write variables affecting the sleep delay and return delay.
- drivers/cyberpower-mib.c: cyberpower-mib: fix instant command declarations Had desired OID values in default value field. Also, default value for SU\_TYPE\_CMD should be NULL.
- drivers/cyberpower-mib.c: cyberpower-mib: NUT runtime is seconds not minutes
- drivers/cyberpower-mib.c: cyberpower-mib: clarify status values
- drivers/cyberpower-mib.c: cyberpower-mib: correct sysOID At least newer CyberPower management cards report a sysOID of CPS-MIB::ups, not the base CyberPower enterprise MIB that was previously defined.

**2.1273 2019-04-01 Jim Klimov <jimklimov@gmail.com>**

- include/common.h: common.h : use the common do/while idiom for macro with if clause

**2.1274 2019-04-01 Jim Klimov <jim@jimklimov.com>**

- common/common.c, include/common.h: Problem: upsdebug\*() pass data and allocate vars always Solution: wrap old well-known API routines into macros that check debugging level first, and only invest into calling routines and passing data later - if that would not be in vain.
- docs/nut.dict: nut.dict : add "daemonize"
- docs/man/nut-driver-enumerator.txt, scripts/upsdrvsvctlnut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in man/nut-driver-enumerator.txt : document --daemon-after mode



**2.1275 2019-03-29 Ross Williams <ross@ross-williams.net>**

- drivers/cyberpower-mib.c: cyberpower-mib: Add instant commands
- drivers/cyberpower-mib.c: cyberpower-mib: Add instant commands
- drivers/cyberpower-mib.c: cyberpower-mib: add support for battery status Reports LB, CAL, and RB flags

**2.1276 2019-03-29 Jim Klimov <jimklimov@gmail.com>**

- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : refactor nut\_driver\_enumerator\_full\_reconfigure() into a routine
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : refactor get\_service\_for\_device() into a routine
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : added update\_upslist\_savednames\_find\_missing() into single-run and daemonized modes, to update inconsistent configs
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : refactor list\_services\_for\_devices(\_once) and get\_device\_for\_service() into routines
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : introduce upslist\_savednames\_missing() and upslist\_savednames\_find\_mismatch() to upgrade entries without saved names
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : comment that we trust hook\_getSavedDeviceName data to be consistent (ensuring it is expensive and belongs elsewhere)
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : to be sure, chop instance names from SMF FMRIs more intensively
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : introduce hook\_findSavedDeviceName() for faster --get-service-for-device processing
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : use hook\_getSavedDeviceName() to speed up --get-device-for-service processing where possible (typo fix)
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : standardize hook\_setSavedDeviceName()
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : use hook\_getSavedDeviceName() to speed up --get-device-for-service processing where possible
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : update © 2019
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : refactor expansions "\$\_VAR" =>
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : add a BIG NOTE about shell interpreter

**2.1277 2019-03-28 Jim Klimov <jimklimov@gmail.com>**

- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : save original device name into service props
  - scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : run smf\_setSaved\*() in subprocesses to avoid variable pollution in caller
  - scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : smf\_setSavedMD5() : refactor the actual setter into smf\_setSavedUniq() for other use-cases
  - scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : smf\_setSavedMD5() : do not spam stderr about yet-missing property
  - scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : smf\_setSavedMD5() : do not try to refresh the non-instance service (for global config)
-

- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : smf\_getSavedMD5() : do not spam stderr about yet-missing property
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh : do not create a hashed SMF instance if failed to add a normally-named one because it already exists (clean it up and then add)

#### 2.1278 2019-03-25 Jean-Baptiste Boric <[boricj@users.noreply.github.com](mailto:boricj@users.noreply.github.com)>

- tools/nut-scanner/scan\_snmp.c: Fix nut-scanner SNMPv3 (#680)

#### 2.1279 2019-03-19 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>

- drivers/main.c: drivers/main.c : rearrange handling of configured nut\_debug\_level\_global vs nut\_debug\_level\_driver vs ultimately used nut\_debug\_level
- drivers/main.c: driver/main.c : separate toggles for driver debugging and backgrounding

#### 2.1280 2019-03-19 Jean-Baptiste Boric <[boricj@users.noreply.github.com](mailto:boricj@users.noreply.github.com)>

- tools/nut-scanner/scan\_snmp.c: Fix SNMPv3 in nut-scanner (#679)

#### 2.1281 2019-03-19 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>

- drivers/compaq-mib.c, drivers/eaton-ats16-mib.c, drivers/eaton-pdu-marlin-mib.c, drivers/hpe-pdu-mib.c, drivers/netxml-ups.c, drivers/powerware-mib.c: Refresh firmware information for Eaton/HPE devices Despite the static nature of these data, firmware can be updated by various means, and should thus be refreshed by the driver, without needing a driver restart. A "semi static" approach should be done in the end, as in usbhid-ups, but is not part of the present development, though commented in the code. For the time being, simply remove the STATIC flags to refresh the data (snmp-ups) and allow to refresh product information (netxml-ups)

#### 2.1282 2019-03-18 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>

- drivers/main.c: drivers/main.c : allow to configure debug\_min=NUM to ease service debugging

#### 2.1283 2019-03-15 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>

- NEWS: Add entry for openssl-1.1.0 support

#### 2.1284 2019-03-15 Arjen de Korte <[build+github@de-korte.org](mailto:build+github@de-korte.org)>

- clients/upsclient.c, clients/upssched.c, m4/nut\_check\_libopenssl.m4, server/netssl.c: Add support for openssl-1.1.0 (#504) \* Add support for openssl-1.1.0 \* Allow TLSv1 and higher (not just TLSv1) \* Fix check for empty string \* Report TLS handshake in debug mode \* Update nut\_check\_libopenssl.m4 \* Update upsclient.c \* Update netssl.c

#### 2.1285 2019-03-14 Charles Lepple <[clepple+nut@gmail.com](mailto:clepple+nut@gmail.com)>

- docs/man/nutupsdrv.txt, docs/man/ups.conf.txt: nutupsdrv: reword "user" directive section Closes: <https://github.com/networkupstools/nut/issues/336> Closes: <https://github.com/networkupstools/nut/issues/671>

**2.1286 2019-03-13 Arnaud Quette <arnaud.quette@free.fr>**

- docs/nut.dict: Update spelling dictionary
- docs/nut.dict: Update spelling dictionary

**2.1287 2019-03-11 Jean-Baptiste Boric <boricj@users.noreply.github.com>**

- clients/nutclient.cpp, clients/nutclient.h, docs/new-clients.txt, docs/nut.dict: Implement tracking commands in libnutclient (#673)
- Implement tracking commands in libnutclient \* Add TrackingResult::INVALID\_ARGUMENT

**2.1288 2019-03-11 Arnaud Quette <arnaud.quette@free.fr>**

- docs/new-clients.txt: libnutclient: add comments to the code sample

**2.1289 2019-02-28 Arnaud Quette <arnaud.quette@free.fr>**

- NEWS: Update NEWS for next release

**2.1290 2019-02-26 Roberto Panerai Velloso <rvelloso@gmail.com>**

- drivers/solis.c, drivers/solis.h: Added author info for previous merge <https://github.com/networkupstools/nut/pull/511> (#672)  
\* added author information

**2.1291 2019-02-26 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/solis.c: Fix regression in solis authors list
- clients/Makefile.am, clients/upsclient.c, clients/upsclient.h, clients/upscmd.c, clients/upsrw.c, common/snprintf.c, conf/upsd.conf.sample, docs/man/Makefile.am, docs/man/upscli\_cleanup.txt, docs/man/upscli\_readline.txt, docs/man/upscli\_sendline.txt, docs/man/upscmd.txt, docs/man/upsd.conf.txt, docs/man/upsrw.txt, docs/net-protocol.txt, docs/nut-names.txt, docs/nut.dict, docs/sock-protocol.txt, drivers/dstate.c, drivers/upshandler.h, include/common.h, scripts/augeas/nutupsdconf.aug.in, scripts/augeas/tests/test\_nut.aug, server/conf.c, server/netget.c, server/netinstcmd.c, server/netset.c, server/nut\_ctype.h, server/sstate.c, server/upsd.c, server/upsd.h, tools/nut-scanner/nut-scanner.c: INSTCMD and SET VAR status tracking implementation (#659) \* INSTCMD and SET VAR status tracking implementation This commit implements the instant commands (instcmd) and variables settings (setvar) status tracking, to get the actual execution status from the driver \* Missing Revision history \* Fix nut-names.txt modification that should not be here \* Augeas support: add CMDSETSTATUSDELAY for upsd.conf \* INSTCMD and SET VAR status tracking completion Following Daniele Pezzini thorough review, sanitize and improve the code, and also complete documentation \* INSTCMD and SET VAR status tracking completion implement support for status tracking in upscmd and upsrw \* upscmd/upsrw: delay retries for status tracking \* Remove comment There is no need to condition CMDSET\_STATUS commands received by upsd from the driver, on cmdset\_status\_enabled, since what matters is the presence of a list and id \* Complete comment \* UUID v4 implementation replaced the initial rxi/uuid4 library used by a cross platform version. Though more basic, it is enough for our needs, at least for now \* status\_info should be static \* No need for else, since fatalx is called before \* Suppress \n from debug output \* Group sanity checks \* Get rid of dynamic memory allocation \* Improve and enforce the use of UUID4\_LEN \* Comment on the size of dest for nut\_uuid\_v4() \* Move structures and defines to more appropriate places \* Add functions with timeout Add upscli\_sendline\_timeout and upscli\_readline\_timeout, beside from the classic blocking versions. Also make a common define for timeout, and use it in upsclient and nut-scanner \* upscmd/upsrw: add a timeout option
- Basic homebrew UUID v4 implementation \* Prefer to use static buffer for UUID \* log actual result of instcmd / setvar \* Fix tracking ID reporting due to static memory changes \* upsclient: use unsigned int for timeouts Also, explicit that upscli\_cleanup() takes no argument. \* upscmd/upsrw: use unsigned int for timeout \+ our str\_to\_uint() for it Also, slightly reword the help message for -t (timeout) option, in order to clarify which is the unit (seconds) used for the provided value. \*

upscmd/upsrw: don't sleep after receiving a non-PENDING CMDSET\_STATUS Also, remove some nesting in do\_cmd() and do\_set(). \* net-protocol: clarify the format of GET CMDSET\_STATUS \+ <status\_id> <status\_id> is not optional to get the status of a command/setvar with CMDSET\_STATUS, so drop the [square brackets] from it. Also drop "quotes" in SET CMDSET\_STATUS's <value>, since it's expected to be a single word. Plus, fix markup of INSTCMD's <cmdparam> parameter. \* sock-protocol: align case and markup of command parameters \* dstate: fix handling of INSTCMD's optional parameters We should still support the old INSTCMD <cmdname> [<cmdparam>] format, and not only consider <cmdparam> when also STATUS\_ID <id> is provided. Also, fix the format of our sock-protocol commands mentioned in comments, and add function names to debug info. \* common: document the recently added things \* upsd: in INSTCMD/SET handlers, also accept NULL for status\_id Plus: - use a simpler approach to test if status\_id is not empty, - align the way the SET command is built to the one used for the INSTCMD command. \* upsd: drop unnecessary/unused global \* upsd: move sanity checks of cmdset\_status\_get() after declaration of vars Also, drop some nesting in that function. \* Move from CMDSET\_STATUS / STATUS\_ID to TRACKING This is just a big, big rename, no code changes. \* upsd: refine the tracking API Add a couple of functions to change in a predictable way the value of the general enablement of tracking and make it visible only inside upsd.c. Also, move the tracking type (tracking\_t) and the list of items inside upsd.c. \* net-protocol: also return TRACKING between OK and <id>, for INSTCMD/SET VAR \* dstate: **really** fix handling of INSTCMD's optional parameters Erroring out on INSTCMD <cmdname> doesn't seem like a good idea... \* common: massage default timeouts Rename the default timeout used in network operations by upsclient and nut-scanner to be more specific: from DEFAULT\_TIMEOUT to DEFAULT\_NETWORK\_TIMEOUT. Plus, make the default timeout used when retrieving the result of an INSTCMD/SET VAR with TRACKING enabled a common #define'd value (DEFAULT\_TRACKING\_TIMEOUT), and use it also to publish the default value of the -t option in the help messages of upscmd and upsrw. As suggested by Charles Lepple. \* upsd: ignore case of UUID4 in tracking API Also, remove some nesting in tracking\_del(). \* libupsclient: generate manpages for upscli\_{read,send}line\_timeout() To keep things simple, at least for now, only generate manpages and not html pages (and, as such, don't even think of using our linkman AsciiDoc macro with those functions, to avoid dead links). \* libupsclient: bump version as per recent changes - addition of upscli\_{read,send}line\_timeout(),

- upscli\_cleanup() → upcli\_cleanup(void) Note: only increase *current* and not *age*, because the upscli\_cleanup() change could (potentially) make it not compatible with previous versions. \* upscmd/upsrw: warn that also the drivers need to support TRACKING, for -w \* Fix typo and spelling \* Add check around atoi() conversion

## 2.1292 2019-02-25 Roberto Panerai Velloso <rveloso@gmail.com>

- drivers/solis.c, drivers/solis.h: solis: various improvements and fixes - fixed two memory leaks (unnecessary strdup's), - removed ser\_flush calls that were causing the driver to desync, - refactored code, mostly bit manipulation functions, - other minor improvements in source code.

## 2.1293 2019-02-23 Jim Klimov <jim@jimklimov.com>

- clients/Makefile.am: clients/Makefile.am : also consider HAVE\_CXX11 for .la target
- tests/Makefile.am: tests/Makefile.am : explicitly consider HAVE\_CXX11
- clients/Makefile.am, tests/Makefile.am: tests, clients Makefiles : consider HAVE\_CXX11
- configure.ac: configure.ac : expose HAVE\_CXX11 into automake
- configure.ac: configure.ac : add C++0X as draft C\+\+11 support detection (older GCC on some systems)
- configure.ac: configure.ac : refactor C\+\+11 detection for readability
- configure.ac: Problem: OpenBSD mktemp complains on short pattern Solution: bump from XXXXX to XXXXXXXX which did not complain in another part of the configure script

## 2.1294 2019-02-20 Jim Klimov <jim@jimklimov.com>

- clients/Makefile.am, tools/nut-scanner/Makefile.am: nut-scanner and clients Makefile.am : comments about version-information

**2.1295 2019-02-16 Jim Klimov <jim@jimklimov.com>**

- docs/nut.dict: nut.dict : add words for upsdrcvscctl doc

**2.1296 2019-02-08 Jim Klimov <jim@jimklimov.com>**

- common/common.c: Problem: 32-bit builds fail to load 64-bit libs Solution: Do our best to guess the bitness of a build, and use it in search paths for get\_libname()

**2.1297 2019-02-03 Daniele Pezzini <hyouko@gmail.com>**

- server/upsd.c: upsd: fix the calling of netcmds items' func() Since, as per our network protocol, it's perfectly legal to have single-word commands (and we already have a few, e.g. VER, NETVER, HELP, ...), we do not do an early check to ensure that at least one argument was provided to the command. As such, the list of words generated by parseconf could actually end with the command itself. That said, trying to access something that should not be there doesn't seem like a good idea, so, only pass to netcmds items' func() the list of arguments (which starts at the second item of the list of words), if there are arguments, otherwise just pass NULL.
- server/sstate.c: sstate: make sure ADDRANGE/DELRANGE have all the needed parameters Since ADDRANGE and DELRANGE take 3 arguments (<varname>, <minvalue>, <maxvalue>), we have to ensure all of them were provided, before attempting to use them.
- drivers/dstate.c: dstate: fix dstate\_delrange() socket protocol command The documented (and used in server-side) command for deleting a range is DELRANGE <varname> <minvalue> <maxvalue>, not DELRANGE <varname> "<minvalue> <maxvalue>", as used in dstate\_delrange(). So, fix that unused (well, at least in NUT) function to use the correct format. Also, remove an extraneous additional space in the command used in dstate\_addrange().

**2.1298 2019-02-01 Arnaud Quette <arnaud.quette@free.fr>**

- configure.ac: Fix wording that breaks some syntax highlighting systems
- configure.ac, scripts/augeas/Makefile.am: Augeas support: execute lenses tests if possible This is however disabled for now, while waiting to fix the reported issue Ref: <https://github.com/networkupstools/nut/issues/657>
- configure.ac: Fix wording that breaks some syntax highlighting systems
- docs/nut-names.txt: Add the missing delayed versions of some commands

**2.1299 2019-01-30 Jean-Baptiste Boric <boricj@users.noreply.github.com>**

- clients/nutclient.cpp, clients/nutclient.h: libnutclient: introduce getDevicesVariableValues() (#654) A performance bottleneck was identified within the 42ity project, where querying all variable values from 300 ePDUs through upsd and libnutclient took 15 seconds to complete. The new method TcpClient::getDevicesVariableValues() allows querying device variable values in bulk, by sending all LIST VAR commands ahead of time and then parsing all the results at once. Throughput is vastly improved, with the mega-query completing about 15 times faster.

**2.1300 2019-01-28 Arnaud Quette <arnaud.quette@free.fr>**

- clients/Makefile.am, clients/nutclient.h: libnutclient: fix version and interface \* Library version should be updated to reflect changes, and is now 1:0:0 \* Interface should be adapted so that the additional argument to instant commands can be optional
- drivers/eaton-pdu-marlin-mib.c, drivers/hpe-pdu-mib.c: snmp-ups: support extra param for instcmd (Eaton/HPE) Add support for extra parameter for instant commands on Eaton and HPE ePDU

- drivers/snmp-ups.c: snmp-ups: fix potential segfault when using delayed instant commands, with a NULL default value, and not providing a value, the driver can segfault
- docs/nut.dict: Fix spellcheck
- clients/nutclient.cpp, clients/nutclient.h, docs/net-protocol.txt: Add support for extra parameter for instant commands Instant commands were almost ready for supporting additional parameter. However, it was not documented, and libnutclient was not supporting it yet

### 2.1301 2019-01-24 Arnaud Quette <arnaud.quette@free.fr>

- drivers/apc-ats-mib.c, drivers/apc-mib.c, drivers/apc-pdu-mib.c, drivers/baytech-mib.c, drivers/bestpower-mib.c, drivers/compaq-mib.c, drivers/cyberpower-mib.c, drivers/eaton-ats16-mib.c, drivers/eaton-ats30-mib.c, drivers/eaton-pdu-genesis2-mib.c, drivers/eaton-pdu-marlin-mib.c, drivers/eaton-pdu-pulizzi-mib.c, drivers/eaton-pdu-revelation-mib.c, drivers/emerson-avocent-pdu-mib.c, drivers/hp-pdu-mib.c, drivers/ietf-mib.c, drivers/mge-mib.c, drivers/netvision-mib.c, drivers/powerware-mib.c, drivers/raritan-pdu-mib.c, drivers/raritan-px2-mib.c, drivers/snmp-ups.c, drivers/snmp-ups.h, scripts/subdriver/gen-snmp-subdriver.sh: snmp-ups: Rework instant commands handling Use snmp\_info\_t→dfl, which is a char\*, instead of snmp\_info\_t→info\_len for instant commands default value. This allows to distinguish between commands that do not require a mandatory value. For instcmd requiring a parameter (such as \*.delay), a NULL snmp\_info\_t→dfl and no extradata will result in STAT\_INSTCMD\_INVALID value returned Also adapt subdrivers and gen-snmp-subdriver.sh to match this
- drivers/delta\_ups-mib.c, drivers/eaton-pdu-marlin-mib.c, drivers/huawei-mib.c, drivers/snmp-ups.c, drivers/snmp-ups.h, drivers/xppc-mib.c, scripts/subdriver/gen-snmp-subdriver.sh: snmp-ups: Simplify the mapping structure \* snmp\_info\_t→setvar is not used anymore, so drop it, \* hence, also delete flag SU\_FLAG\_SETINT and references to it, \* adapt subdrivers and gen-snmp-subdriver.sh to match this

### 2.1302 2019-01-23 Arnaud Quette <arnaud.quette@free.fr>

- drivers/snmp-ups.c: snmp-ups: Fix warnings (memset-elt-size/pointer-sign)
- drivers/snmp-ups.c: snmp-ups: Actually fix commands offset (off by 1) The last fix was wrongly setting the offset to negative, and subtracting it again from the current device number, which resulted in an addition, not a subtraction
- drivers/mge-hid.c, drivers/usbhid-ups.c: usbhid-ups / MGE: bump versions to reflect changes

### 2.1303 2019-01-22 Jean-Baptiste Boric <boricj@users.noreply.github.com>

- drivers/mge-xml.c, drivers/netxml-ups.c, drivers/netxml-ups.h: netxml-ups: Report calibration status (#650)

### 2.1304 2019-01-22 Arnaud Quette <arnaud.quette@free.fr>

- drivers/mge-hid.c, drivers/usbhid-ups.c, drivers/usbhid-ups.h: usbhid-ups: Fix erroneous OB report on Eaton UPS Also created a read accessor on status bits and move the related definitions to the driver header
- data/driver.list.in, drivers/Makefile.am, drivers/hpe-pdu-mib.c, drivers/hpe-pdu-mib.h, drivers/snmp-ups.c: snmp-ups: Add support for HPE ePDU

### 2.1305 2019-01-21 Arnaud Quette <arnaud.quette@free.fr>

- drivers/snmp-ups.c: snmp-ups: Improve ALARM flag handling
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**2.1306 2019-01-17 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/snmp-ups.c: snmp-ups: Fix ALARM flag on non-daisychained devices
- drivers/snmp-ups.c: snmp-ups: Fix erroneous integration of hpe\_pdu
- drivers/snmp-ups.c: snmp-ups: Fix commands offset (off by 1)
- drivers/snmp-ups.c: snmp-ups: Fix detection and display of hex strings

**2.1307 2019-01-11 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/compaq-mib.c: snmp-ups: Add firmware version for new Network card Also bump HPE/Compaq subdriver version to 1.62

**2.1308 2018-12-18 Jim Klimov <jim@jimklimov.com>**

- scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : centralize management of TIMEOUT\_CMD and TIMEOUT\_ARGS, and use it for driver stop/start - it hangs too sometimes
- scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : centralize management of TIMEOUT\_CMD and TIMEOUT\_ARGS, and use it for driver stop/start - it hangs too sometimes
- docs/man/upsdrvsvctctl.txt, scripts/upsdrvsvctctl/upsdrvsvctctl.in: upsdrvsvctctl.in : support --timeout-cmd and --timeout-args to limit running the systemctl/svcadm commands

**2.1309 2018-12-07 Scott Shambarger <devel@shambarger.net>**

- clients/upsmon.c, clients/upssched.c, common/parseconf.c: Add FD\_CLOEXEC flag to config files, pipes and sockets File descriptors are leaking to processes spawned by upsmod and upssched, leading to SELinux errors when (for example) sendmail attempts to read from fd #4.

**2.1310 2018-12-05 Jim Klimov <jim@jimklimov.com>**

- scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : log the reevaluation frequency when daemonizing
  - scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : reword a log message
  - scripts/Solaris/nut-driver-enumerator.xml.in: nut-driver-enumerator.xml.in : use --daemon-after to verify that the config was correct, and only then daemonize
  - scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : handle TERM et al more visibly
  - scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : re-evaluate ups.conf checksum if interrupted during sleep
  - scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : refactor \$RECONFIGURATION\_SIGNALS in daemonize() mode and add graceful termination support
  - scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : refactor SIGHUP trap handling in daemonize() mode
  - scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : do not further subshell the already backgrounded daemonize()
  - scripts/systemd/nut-driver-enumerator-daemon.service.in, scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: nut-driver-enumerator-daemon.sh / nut-driver-enumerator-daemon.service.in : support a daemon-after mode
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- scripts/systemd/nut-driver-enumerator-daemon-activator.service.in: nut-driver-enumerator-daemon-activator.service.in : Make it a short-lived oneshot service after all
- scripts/systemd/nut-driver-enumerator-daemon.service.in: nut-driver-enumerator-daemon.service.in : remove irrelevant comments (from non-daemonized origins) and we do forking
- scripts/systemd/nut-driver-enumerator-daemon-activator.service.in: nut-driver-enumerator-daemon-activator.service.in : Limit the ammount of times we try to reload/restart nut-driver-enumerator-daemon.service
- .../systemd/nut-driver-enumerator-daemon-activator.service.in: nut-driver-enumerator-daemon-activator.service.in : This unit is intentionally not installed as PartOf/WantedBy anything, no auto-start

### 2.1311 2018-12-04 Jim Klimov <jim@jimklimov.com>

- configure.ac, docs/config-notes.txt, scripts/systemd/.gitignore, scripts/systemd/Makefile.am, scripts/systemd/README, .../nut-driver-enumerator-daemon-activator.path.in, ...t-driver-enumerator-daemon-activator.service.in, .../nut-driver-enumerator-daemon.service.in, scripts/systemd/nut-driver-enumerator.path.in, scripts/systemd/nut-driver-enumerator.service.in: nut-driver-enumerator-daemon\* : Introduce a systemd service unit bundle for daemonized mode
- scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh : note to not skip full "main" evaluation in daemon mode
- scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh : support SIGHUP causing a quick reconfig when received both during the sleep and processing in-progress
- scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh : avoid continuous reconfiguration (esp. in daemon mode)
- scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : for many discovered changes, avoid the lag of running systemctl daemon-reload for every item in the loop
- scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : in single-run, daemon and full-reconfig modes, take note if the config file had changed while we were running - re-sync services vs sections ASAP then
- scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : introduce calc\_md5\_file() and comment calc\_md5() a bit better

### 2.1312 2018-12-01 mjan <mjmail@correo.casa.loc>

- drivers/Makefile.am, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx\_hunnox.c, drivers/nutdrv\_qx\_hunnox.h: Add support for Hunnox HNX-850

### 2.1313 2018-11-19 Jim Klimov <jim@jimklimov.com>

- scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : critical typo fix (Environment is valid in section Service, not Unit)

### 2.1314 2018-11-16 Jim Klimov <jim@jimklimov.com>

- scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : refactor upsconf\_getSection\_content() to have one place of logic to add the parsed section line
  - scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in, tests/nut-driver-enumerator-test—ups.conf, tests/nut-driver-enumerator-test.sh: nut-driver-enumerator.sh.in : section-name brackets should contain a single token and not be inside another string
  - scripts/upsdrvsvctctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : refactor upslist\_normalizeFile\_filter() into a more readable standalone routine
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**2.1315 2018-11-13 Jim Klimov <jim@jimklimov.com>**

- scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : update the list of config factors that mean an USB nutdrv\_qx device
- scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in, tests/nut-driver-enumerator-test.sh: nut-driver-enumerator-test.sh / nut-driver-enumerator-test—ups.conf / nut-driver-enumerator.sh.in : extend upsconf\_getValue() to query for several values in the same call to more efficiently check if any key/flag is set
- scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in, tests/nut-driver-enumerator-test—ups.conf, tests/nut-driver-enumerator-test.sh: nut-driver-enumerator-test.sh / nut-driver-enumerator-test—ups.conf / nut-driver-enumerator.sh.in : do not ignore driver flags followed by a comment
- scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : fix \t into TABCHAR
- tests/nut-driver-enumerator-test.sh: nut-driver-enumerator-test.sh : show the expected vs actual diff in any shell interpreter
- scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : add a disclaimer about config parser (probable non-)conformity to NUT binary definitions
- tests/nut-driver-enumerator-test—ups.conf: nut-driver-enumerator-test—ups.conf : test a section with indented name
- scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in, tests/nut-driver-enumerator-test—ups.conf, tests/nut-driver-enumerator-test.sh: nut-driver-enumerator-test.sh / nut-driver-enumerator-test—ups.conf / nut-driver-enumerator.sh.in : in section-name lines, ignore anything outside the first set of brackets
- tests/nut-driver-enumerator-test.sh: nut-driver-enumerator-test.sh : show a diff of expected vs actual, if the shell allows in-place docs
- tests/nut-driver-enumerator-test.sh: nut-driver-enumerator-test.sh : suggest to a dev how to re-run the failed test verbosely

**2.1316 2018-11-05 Jim Klimov <jimklimov@gmail.com>**

- tools/Makefile.am, tools/nut-scanner/Makefile.am: tools/ Makefiles : refactor with clarifications from DMF branch (#636)

**2.1317 2018-11-04 Jim Klimov <jim@jimklimov.com>**

- scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : fix svcprop queries to base service level
  - scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : consider "unknown" systemd unit state as one to be restarted
  - scripts/upsdrvsvccctl/upsdrvsvccctl.in: upsdrvsvccctl.in : fix -D for debugging level
  - scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in, tests/nut-driver-enumerator-test—ups.conf, tests/nut-driver-enumerator-test.sh: nut-driver-enumerator-test.sh / nut-driver-enumerator.sh.in : support USB and Serial modes for nutdrv\_qx
  - scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : track changes of global config and restart drivers and nut-server if that happened
  - scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in, tests/nut-driver-enumerator-test.sh: nut-driver-enumerator-test.sh / nut-driver-enumerator.sh.in : in upslst\_debug() show also the global config section
  - scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in, tests/nut-driver-enumerator-test—ups.conf, tests/nut-driver-enumerator-test.sh: nut-driver-enumerator-test.sh / nut-driver-enumerator.sh.in : support flag values (line is a single token)
  - scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : do not use an "other" section as a magic value
  - scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : "break" the loop, not return from it (artefact of moving code from a sub-shell)
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**2.1318 2018-11-01 Jim Klimov <jim@jimklimov.com>**

- scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh : Use a timeout to restart/reload nut-server (systemd)
- scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh : Do not restart/reload nut-server if not already running (systemd)

**2.1319 2018-10-22 Robert W. Cashman <rob@cashmans.org>**

- drivers/cyberpower-mib.c: Added UPS load, battery charge, input voltage/frequency, and output voltage, MIB mappings to cyberpower-mib.c

**2.1320 2018-10-12 Jim Klimov <jim@jimklimov.com>**

- .travis.yml: .travis.yml : move nut-driver-enumerator-test jobs lower in stack - we want slow jobs to start first
- .travis.yml: .travis.yml : matrix job seems to require having at least two items

**2.1321 2018-10-11 Jim Klimov <jimklimov@gmail.com>**

- tests/nut-driver-enumerator-test.sh: Update nut-driver-enumerator-test.sh Standardize the testing setup

**2.1322 2018-10-11 Jim Klimov <jim@jimklimov.com>**

- builds/nut-driver-enumerator-test/ci\_build.sh: builds/nut-driver-enumerator-test/ci\_build.sh : use the "selftest" dummy service framework if systemd is not available in the testing OS environment
- scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : support a "selftest" dummy service framework
- builds/nut-driver-enumerator-test/ci\_build.sh: builds/nut-driver-enumerator-test/ci\_build.sh : let the tests have some SERVICE\_FRAMEWORK
- tests/nut-driver-enumerator-test.sh: tests/nut-driver-enumerator-test.sh : update envvar processing
- builds/nut-driver-enumerator-test/ci\_build.sh: builds/nut-driver-enumerator-test/ci\_build.sh : export BUILDDIR SRCDIR for the test script
- builds/nut-driver-enumerator-test/ci\_build.sh: builds/nut-driver-enumerator-test/ci\_build.sh : debug the testing script itself
- .travis.yml, builds/nut-driver-enumerator-test/ci\_build.sh, tests/nut-driver-enumerator-test.sh: Problem: nut-driver-enumerator not Travisized Solution: Add call to its selftest

**2.1323 2018-10-10 Jim Klimov <jim@jimklimov.com>**

- docs/nut.dict: nut.dict : add components of --show-all-configs
  - scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : echo if there is nothing to reconfigure (add timestamp, do not spam in daemonized loop by default)
  - scripts/Solaris/postinstall.in, scripts/Solaris/preremove.in: Solaris preremove.in postinstall.in : pass the last-active nut-driver-enumerator instance across package upgrades done over a short timeframe
  - scripts/Solaris/postinstall.in, scripts/Solaris/preremove.in: Solaris preremove.in postinstall.in : less spam from "svcadm clear" of not-failed services
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- scripts/Solaris/postinstall.in, scripts/Solaris/preremove.in: Solaris preremove.in postinstall.in : support the multi-instance nut-driver-enumerator service now
- tests/Makefile.am: tests/Makefile.am : EXTRA\_DIST the new nut-driver-enumerator-test script and config
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : echo if there is nothing to reconfigure (early on or after the loop has done some changes)
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : update comments regarding SMF service instance wrapping
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : test for changed sections before testing for changed set of section vs service names
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : small sanity check in upslst\_checksums\_unchanged()
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : update comments regarding new support for detection of changed device section contents
- scripts/upsdrvsvcctl/upsdrvsvcctl.in: upsdrvsvcctl.in : SMF service management should wait for completion, to be same as systemd
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : optimize loop work
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : basic support for detecting changes in ups.conf
- tests/nut-driver-enumerator-test.sh: nut-driver-enumerator-test.sh : commented a couple of FIXMEs illustrated by the test expected data
- tests/nut-driver-enumerator-test.sh: nut-driver-enumerator-test.sh : call testcase\_upslst\_debug() last in the suite
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : store SECTION\_CONTENT in a variable and spit it out once
- tests/nut-driver-enumerator-test.sh: nut-driver-enumerator-test.sh : update tests for only trimming whitespace around first "=" character
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : refer to systemd unit via SVCINST not \$1 when registering
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : update comments
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : drop unneeded assignment in calc\_md5()
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : in upslst\_normalizeFile() only trim whitespace around first "=" character (do not touch subsequent ones in value part)
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : optimize upsconf\_getValue() since we use pre-normalized data
- tests/nut-driver-enumerator-test.sh: nut-driver-enumerator-test.sh : add DEBUG=trace
- tests/nut-driver-enumerator-test—ups.conf, tests/nut-driver-enumerator-test.sh: nut-driver-enumerator-test.sh : add a test case for dummy-ups proxying to a localhost "remote" device; add examples of quoted key values with spaces

## 2.1324 2018-10-09 Jim Klimov <jim@jimklimov.com>

- tests/nut-driver-enumerator-test—ups.conf, tests/nut-driver-enumerator-test.sh: nut-driver-enumerator-test.sh : add a test case for querying global config pseudo-section
  - scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : support getting global config values (when device section value is empty)
  - scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : zsh not supported
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- tests/nut-driver-enumerator-test.sh: nut-driver-enumerator-test.sh : add a test case for config value that was quoted
- tests/nut-driver-enumerator-test.sh: nut-driver-enumerator-test.sh : control values of section and device name checksums in upsconf\_debug()
- scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : expose section and device name checksums in upsconf\_debug()
- scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : introduce upsconf\_getSection\_MD5() to checksum the normalized payload of a config section
- scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : in --reconfigure should exit() not return()
- scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : in systemd\_validFullUnitName() add the .service suffix if needed
- tests/.gitignore, tests/nut-driver-enumerator-test—ups.conf, tests/nut-driver-enumerator-test.sh: Introduce simple unit tests for nut-driver-enumerator.sh
- scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : expose upsconf\_debug() and upslist\_debug() to CLI
- scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : avoid direct exit during loop processing
- scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : use a variable SYSTEMD\_CONFPATH
- scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : use UPSCONF\_DATA\_SDP and rearrange getSection() routines for certain use-cases
- scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : use upslist\_readFile\_once() in command-line tools to avoid re-parsing the config many times
- scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : use cached UPSCONF\_DATA in upsconf\_getSection() rather than FS access every time
- scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : rearrange and document the initial slurping and normalization of ups.conf, reducing the work done
- docs/man/nut-driver-enumerator.txt, scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in, scripts/upsdrvsvccctl/upsdrvsvccctl.in: nut-driver-enumerator.sh.in : add --show-configs to expose UPSCONF\_DATA with normalized content of ups.conf

## 2.1325 2018-10-05 Jim Klimov <jim@jimklimov.com>

- scripts/upsdrvsvccctl/upsdrvsvccctl.in: upsdrvsvccctl.in : add "reconf(igure)" call to pass into nut-driver-enumerator.sh
  - scripts/upsdrvsvccctl/upsdrvsvccctl.in: upsdrvsvccctl.in : update usage()
  - docs/man/nut-driver-enumerator.txt, scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.txt : make spellchecker happy
  - scripts/Solaris/postinstall.in: solaris postinstall : REPORT\_RESTART\_42=no when reconfiguring
  - scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : update message for reconfig dropping of old service
  - scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : fix fall-through daemonization for DASH
  - scripts/Solaris/README: Solaris README : update about two nut-driver-enumerator instances
  - docs/man/nut-driver-enumerator.txt: nut-driver-enumerator.txt : add recently introduced options into manpage
  - scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : typo fix
  - scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : typo fix
-

- scripts/Solaris/nut-driver-enumerator.xml.in: nut-driver-enumerator.xml.in : support daemonization into background (contract service)
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : support daemonization into background
- scripts/Solaris/nut-driver-enumerator.xml.in: nut-driver-enumerator.xml.in : typo fix
- scripts/Solaris/nut-driver-enumerator.xml.in: nut-driver-enumerator.xml.in : avoid creating default service twice
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : support SIGHUP for the daemon
- scripts/Solaris/README, scripts/Solaris/nut-driver-enumerator.xml.in: nut-driver-enumerator : use --daemon(=freq) in Solaris SMF service, implement it as an option (two prepackaged services, with and without loop)
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator : add --daemon(=freq) to monitor ups.conf vs. services changes ourselves in a loop
- scripts/Solaris/postinstall.in: nut-driver-enumerator : use --reconfigure to remake units from scratch in Solaris postinstall
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator : add --reconfigure to remake units from scratch

### 2.1326 2018-10-04 Jim Klimov <jim@jimklimov.com>

- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : for network-dependent connections, wait for ifplugd to set up physical network, if enabled
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : for network-dependent connections, wait for DNS resolver to appear
- scripts/systemd/nut-driver-enumerator.service.in: nut-driver-enumerator.service.in : do NOT remain active when done, allow nut-driver-enumerator.path to start this again
- scripts/Solaris/README: Solaris README : note that there is no dynamic refresh when ups.conf is changed
- scripts/Solaris/README: Solaris README : update reference to upsdrvsvcctl directory
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : when removing a systemd instance, also remove systemd complaints about it (if any)
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : less ambiguity - manage ".service" instances as such

### 2.1327 2018-10-03 Jim Klimov <jimklimov@gmail.com>

- common/common.c: get\_libname() : support more 64-bit pathname patterns (#609)

### 2.1328 2018-10-02 Jim Klimov <jim@jimklimov.com>

- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : in systemd use-case, fall back to rude restart if reload-or-restart of nut-server stalled and failed

### 2.1329 2018-09-28 Jim Klimov <jimklimov@gmail.com>

- scripts/systemd/nutshutdown.in: Update nutshutdown.in No strict restrictions for fallback timeout
-

**2.1330 2018-09-27 Jim Klimov <jim@jimklimov.com>**

- scripts/Solaris/nut-server.xml.in, scripts/Solaris/svc-nut-server.in, scripts/upsdrvsvctlnut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in / nut-server.xml.in / svc-nut-server.in : reload the running upsd instead of restarting it fully when possible (Solaris SMF)
- scripts/upsdrvsvctlnut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : reload the running upsd instead of restarting it fully when possible (Linux SystemD)

**2.1331 2018-09-26 Jim Klimov <jim@jimklimov.com>**

- scripts/systemd/nut-driver-enumerator.path.in: nut-driver-enumerator.path.in : typo fix for CONFDIR  $\Rightarrow$  CONFPATH
- docs/man/Makefile.am: docs/man/Makefile.am : handle other nutclient\*.3 manpages that are mass-implemented by some libnutclient\*.txt
- scripts/systemd/nutshutdown.in: nutshutdown.in : fallback short timeout if config is absent or not parsable
- scripts/systemd/nutshutdown.in: nutshutdown.in : check that needed programs exist first

**2.1332 2018-09-19 Jim Klimov <jim@jimklimov.com>**

- configure.ac: configure.ac : syntactic sugar
- drivers/usbhid-ups.c: usbhid-ups.c : report the libusb version involved in the driver at this time - reformatted
- drivers/usbhid-ups.c: usbhid-ups.c : report the libusb version involved in the driver at this time - also the values registered with comm\_driver structure
- drivers/usbhid-ups.c: usbhid-ups.c : report the libusb version involved in the driver at this time
- drivers/usbhid-ups.c: usbhid-ups.c : report the libusb version involved in the driver at this time - reformatted
- drivers/usbhid-ups.c: usbhid-ups.c : report the libusb version involved in the driver at this time - also the values registered with comm\_driver structure
- drivers/usbhid-ups.c: usbhid-ups.c : report the libusb version involved in the driver at this time
- tools/Makefile.am, tools/nut-scanner/Makefile.am: Update comments in tools(/nut-scanner)/Makefile.am regarding new more proper dependency definitions

**2.1333 2018-09-19 Arnaud Quette <ArnaudQuette@Eaton.com>**

- server/upsd.c: upsd should return EXIT\_FAILURE when -c failed

**2.1334 2018-09-17 Daniele Pezzini <hyouko@gmail.com>**

- data/driver.list.in: HCL: update support level of some Meta System devices As per the provided protocol: see nut-website's 66d30c90401ff7929b25e5a87f9299b728f861ea

**2.1335 2018-09-08 Jim Klimov <jimklimov@gmail.com>**

- drivers/usbhid-ups.c: usbhid-ups.c : libusb/libshut tracing debug text
-

**2.1336 2018-09-08 Jim Klimov <jim@jimklimov.com>**

- tools/Makefile.am: tools/Makefile.am : GENERATED\_USB\_FILES also depend on nutdrv\_qx.c
- tools/Makefile.am: tools/Makefile.am : generalize GENERATED\_SNMP\_FILES too for consistency
- tools/Makefile.am: Makefile.am : fix back calling scripts from distdir while being in builddir
- scripts/Solaris/postinstall.in: Solaris/postinstall.in : clarify tests for present vs non-empty config files
- scripts/Solaris/postinstall.in, scripts/Solaris/postremove.in, scripts/Solaris/preinstall.in, scripts/Solaris/preremove.in: Insert or update header comments in Solaris pre/post-install/remove scripts

**2.1337 2018-09-07 Jim Klimov <jimklimov@gmail.com>**

- tools/Makefile.am, tools/nut-snmppinfo.py, tools/nut-usbinfopl: tools/nut-snmppinfo.py tools/nut-usbinfopl tools/Makefile : use TOP\_SRCDIR/TOP\_BUILDDIR to pass with distcheck too
- tools/Makefile.am: tools/Makefile.am : update dependency on C sources
- Makefile.am: Makefile.am : "dist" drivers/\*.c before tools (which generates further files from that)
- drivers/libusb0.c, drivers/libusb1.c: libusb0/1.c : ease debugging by trace messages
- drivers/libusb1.c: libusb1.c : inverted order of usb\_communication\_subdriver\_t name/ver fields
- drivers/libusb0.c: libusb.c : inverted order of usb\_communication\_subdriver\_t name/ver fields
- configure.ac: configure.ac : syntactic sugar
- drivers/libusb.c: libusb.c : inverted order of usb\_communication\_subdriver\_t name/ver fields
- scripts/upsdrvsvctlnut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : fix initial setup with 0 service instances present
- scripts/upsdrvsvctlnut-driver-enumerator.sh.in: nut-driver-enumerator.sh.in : try to enable "nut-server" when restarting it
- tools/Makefile.am: tools/Makefile.am : avoid rebuilding generated files after "make dist" over and over
- tools/nut-scanner/Makefile.am: tools/nut-scanner/Makefile.am : structurally arrange built dependencies, reduce hardcoded references to their names

**2.1338 2018-09-06 Jim Klimov <jimklimov@gmail.com>**

- drivers/libshut.c, drivers/libusb.c, drivers/usbhid-ups.c: libusb tracing debug text

**2.1339 2018-09-06 Gabriele Taormina <gabriele.taormina@legrand.com>**

- drivers/metasys.c: metasys: retrieve also battery charge and runtime The added command is only supported by devices with an *id code* >= 14, while for other, older, models the command is not enabled by default, and the user has to perform a specific procedure via serial to enable it (where supported).

**2.1340 2018-09-06 Daniele Pezzini <hyouko@gmail.com>**

- data/driver.list.in: HCL: add some Legrand devices supported by nutdrv\_qx Also, specify that Legrand Multiplug is USB-only.
- data/driver.list.in: HCL: update support level of some Meta System devices As per the provided protocol: see nut-website's 570c1e5e9f1fb4f82abef9359897b5159e88fc50 Also, fix name of "HF Line /2".



**2.1341 2018-09-05 Daniele Pezzini <hyouko@gmail.com>**

- drivers/metasys.c: metasys: remove useless initialisation of vars

**2.1342 2018-08-29 Jim Klimov <jim@jimklimov.com>**

- scripts/systemd/Makefile.am: EXTRA\_DIST scripts/systemd/nut.target also

**2.1343 2018-08-27 Gabriele Taormina <gabriele.taormina@legrand.com>**

- data/driver.list.in, drivers/metasys.c: metasys: support some newer Meta System and Legrand devices Add to the metasys driver a few new models (Meta System DHEA, and others now branded Legrand) speaking the Meta System UPS protocol.
- drivers/metasys.c: metasys: treat any \0 in the serial number as a 0
- drivers/metasys.c: metasys: for bypass mode, call status\_set() with "BYPASS", not "BY"
- drivers/metasys.c: metasys: fix handling of errors/special values As per protocol documentation, data is sent by the device with unsigned integers of 8, 16 or 32 bits, with errors/special values being: - for uint16: 0xFFFF and 0xFFFE, - for uint32: 0xFFFFFFFF. Alas, those values are (and, probably, have always been) actually reported in the documentation (mostly) as if their types were not unsigned (so, in decimal: -1, and -2) and the metasys driver used them like that, converting the values to non-fixed width signed types (int and long) and then expecting a value of -1 or -2 to signal a particular event, but this only happens on platforms where int is exactly 16 bits, and long 32 bits. So, leave values as unsigned types (adjusting all the printf formats accordingly), and use the right hex values, instead.
- data/driver.list.in, drivers/Makefile.am, drivers/legrand-hid.c, drivers/legrand-hid.h, drivers/usbhid-ups.c: usbhid-ups: add Legrand subdriver
- data/driver.list.in, drivers/nutdrv\_qx.c: nutdrv\_qx: add support for some Legrand USB devices

**2.1344 2018-08-21 Jim Klimov <jim@jimklimov.com>**

- m4/nut\_check\_libneon.m4: nut\_check\_libneon.m4 : shell typo fix
- m4/nut\_check\_libneon.m4: nut\_check\_libneon.m4 : do not AC\_MSG\_WARN inside a standard message chain
- m4/nut\_check\_libneon.m4: nut\_check\_libneon.m4 : provide fallback defaults when pkg-config fails

**2.1345 2018-08-19 Daniele Pezzini <hyouko@gmail.com>**

- configure.ac: configure: fix messages of pkg-config checks The PKG\_\*() macros we use there already print messages, therefore we can't use AC\_MSG\_CHECKING() before calling them, and AC\_MSG\_RESULT() after, or we will get something like: checking for autoconf macro support of pkg-config... checking for pkg-config... /usr/bin/pkg-config ^ AC\_MSG\_CHECKING() ^ PKG\_\*() macro output checking pkg-config is at least version 0.9.0... yes ^ PKG\_\*() macro output — continuation ok ^ AC\_MSG\_RESULT() checking for autoconf macro support of pkg-config module checker... checking for dummy\_PKG\_CONFIG... yes ^ AC\_MSG\_CHECKING() ^ PKG\_\*() macro output ok ^ AC\_MSG\_RESULT() ... which is not exactly desirable. So, move the messages to AC\_MSG\_NOTICE(), with the result being explicitly printed only on failure (AC\_MSG\_WARN() call).
- docs/man/Makefile.am: docs/man: fix man8 target for linux/i2c
- docs/man/Makefile.am, drivers/Makefile.am: nutdrv\_qx: don't duplicate make targets Since nutdrv\_qx is both a serial and a USB driver, up until now, its executable and manpages appeared in two lists: serial and USB drivers, in order to be built in both cases, when ./configure'd for only one of them... but, by doing this, when ./configure'd for both, we ended up with dupes, which could potentially cause problems, e.g. when installing them (and this just happened). For the executable, luckily, libtool calls install one file at a time, so this was not, and it still should not be, a problem. For the manpages, we were previously saved by automake, which splits the list of files to be installed in different calls if they are too many (see automake's am\_\_install\_max var, currently set to 40), so the two nutdrv\_qx entries ended up in different calls to install, but the 8b75b03 commit, by adding



more manpages before nutdrv\_qx's ones, pushed also the first occurrence to the second call to install, which already contained the other one, causing an error. While other alternative, more flexible, but also less portable, ways for solving this exist (e.g. using GNU make's \$(sort) on the generated lists), at least for now, prefer a more portable solution, adding new intermediate lists for serial/USB drivers and using simple automake conditionals. Close <https://github.com/networkupstools/nut/issues/594>

## 2.1346 2018-08-14 Jim Klimov <[jimklimov@gmail.com](mailto:jimklimov@gmail.com)>

- .gitignore, Makefile.am, README, common/Makefile.am, configure.ac, docs/FAQ.txt, docs/config-notes.txt, docs/developers.txt, docs/features.txt, docs/man/Makefile.am, docs/man/index.txt, docs/man/nut-driver-enumerator.txt, docs/man/upsdrvctl.txt, docs/man/upsdrvsvctl.txt, docs/net-protocol.txt, docs/nut.dict, include/Makefile.am, scripts/Aix/.gitignore, scripts/Aix/nut.init, scripts/Aix/nut.init.in, scripts/Makefile.am, scripts/Solaris/.gitignore, scripts/Solaris/Makefile.am, scripts/Solaris/README, scripts/Solaris/makelocal.sh, scripts/Solaris/nut-driver-enumerator.xml.in, scripts/Solaris/nut-driver.xml.in, scripts/Solaris/nut-monitor.xml.in, scripts/Solaris/nut-server.xml.in, scripts/Solaris/nut.in, scripts/Solaris/nut.xml.in, scripts/Solaris/pkginfo.in, scripts/Solaris/postinstall.in, scripts/Solaris/postremove, scripts/Solaris/postremove.in, scripts/Solaris/preinstall, scripts/Solaris/preinstall.in, scripts/Solaris/prepackage.py, scripts/Solaris/{preproto.pl ⇒ preproto.pl.in}, scripts/Solaris/preremove.in, scripts/Solaris/sv-nut-monitor.in, scripts/Solaris/svc-nut-server.in, scripts/systemd/.gitignore, scripts/systemd/Makefile.am, scripts/systemd/README, scripts/systemd/nut-driver-enumerator.path.in, scripts/systemd/nut-driver-enumerator.service.in, scripts/systemd/nut-driver.service.in, scripts/systemd/nut-driver.target, scripts/systemd/nut-driver@.service.in, scripts/systemd/nut-monitor.service.in, scripts/systemd/nut-server.service.in, scripts/systemd/nut.target, scripts/systemd/nutshutdown.in, scripts/upsdrvsvctl/.gitignore, scripts/upsdrvsvctl/Makefile.am, scripts/upsdrvsvctl/README, scripts/upsdrvsvctl/nut-driver-enumerator.sh.in, scripts/upsdrvsvctl/upsdrvsvctl.in: Use target for drivers in Linux systemd (updated) and SMF instances for drivers in new Solaris-like systems (and bring AIX initscript into better shape) (#330) \* Use target for drivers in systemd This allows much better granularity and better monitoring in case of multiple UPSes.
- nut-driver.target improvements suggested by @peterhoeg in [PR #229](#)
- systemd units dependencies revised and commented \* nut-driver-enumerator.sh initial commit \* **nut-driver@.service.in** : integrate comments from @peterhoeg about extending unit requirements \* WIP : initial integration of nut-driver-enumerator.sh/service into makefiles etc. \* nut-driver-enumerator.sh renamed into nut-driver-enumerator.sh.in as it has processable templates in code \* nut-driver-enumerator.sh.in : add its own config-file support to set the variables used inside (if not via command-line env) \* nut-driver-enumerator.sh.in : fix up the copyright header \* Subject: Fix systemd service file for Debian From: Laurent Bigonville <[bigon@debian.org](mailto:bigon@debian.org)> Forwarded: not-needed \* nut-driver-enumerator.sh.in : complete the Solaris SMF support in the helper script \* EXTRA\_DIST the scripts/systemd/nut-driver.target (non-templated) file \* nut-driver-enumerator.sh.in : updated comments (esp. about usage and exit-codes) and runtime messages \* nut-driver-enumerator.service.in : define an actual service payload
- nut-driver-enumerator.sh.in : refactor the logic of MAIN PROGRAM into smaller routines for readability \* nut-driver-enumerator.sh.in : introduce routines to help define custom dependencies of particular drivers on other services \* nut-driver-enumerator.sh.in : allow custom NUT\_CONF\_DIR from envvar, to facilitate testing \* nut-server.service.in : typo fix in comments \* nut-driver-enumerator.sh.in : support the concept of localhost networking dependencies, and define vars with lists of services to depend on \* nut-driver-enumerator.sh.in : use proper FMRI:instance separator for SMF \* nut-driver-enumerator.sh.in : added variables for dependency type on third-party service units \* nut-driver-enumerator.sh.in : change upsconf\_getDriverMedia() output from tab-separated to multiline; add upsconf\_getMedia() and upsconf\_debug() and upslit\_debug() \* nut-driver-enumerator.sh.in : refactor with upsconf\_getValue() and cached pre-cooked ups.conf data; infrastructure to configure service dependencies when adding the service instance \* Remove hardcoded dependencies on udev and network from provided systemd units; add comments about extending via drop-in files and that nut-driver-enumerator will do this for nut-drivers \* nutshutdown.in : mark executable \* nut-driver-enumerator.sh.in : complete the systemd drop-in support for custom dependencies for a driver \* nut-driver-enumerator.sh.in : complete the SMF drop-in support for custom dependencies for a driver \* nut-driver-enumerator.sh.in : comment-away upslit\_debug() in default runs \* WIP Adding Solaris SMF manifests for NUT \* Sanitize Solaris SVR4 packaging rules \* Sanitize Solaris packaging scripts some more \* Add configure options for Solaris packaging variants \* Sanitize Solaris packaging scripts some more - consider DESTDIR for installation root \* Turn solaris preproto.pl into a template so it uses proper (configured) user/group strings \* Makefile.am : ensure there is a DESTDIR set before packaging \* Makefile.am : use \$(MAKE) \$(AM\_MAKEFLAGS) instead of explicit "make" (mostly in packaging recipe) \* makelocal.sh : commented and revised \* Solaris/Makefile.am : put generated SVR4 package into builddir (not srcdir that may be readonly) to match other OS recipes \* Makefile.am : ensure the DESTDIR is used for packaging purposes (when calling sub-makes) \* Solaris/pkginfo.in : ARCH is CPU\_TYPE, not OS\_NAME \* GitIgnore built Solaris/NUT\*.local.gz product \* GitIgnore built systemd files \* GitIgnore install\_pkgprotodir \* Makefile.am : ensure only the custom DESTDIR is used for packaging purposes \* Makefile.am :

*convert the big packaging "if" into "case"; link steps with "&&"; retain DESTDIR if Solaris packaging fails; ensure the correct custom DESTDIR is absent before packaging (and after Solaris packaging) \* Solaris/Makefile.am : Revise recipe-names and comments for Solaris packaging variants \* Solaris/Makefile.am and .xml.in : relocate SMF methods and manifests under NUT DATADIR to package compactly \* Solaris-SMF : svc-nut.in svc-nut-client.in : use @RUN\_AS@ and @PIDPATH@ vars instead of hardcoding \* Solaris/Makefile.am : list helper scripts and installation scripts and data in variables and depend on them in packaging; chmod \+x the scripts after copying over to proto area \* GitIgnore config.cache*

- Remove Solaris/prepackage.py (unreferenced duplicate of precheck.py) \* Solaris/nut.in : sanitize the default init-script
- Solaris/Makefile.am : put init-scripts under NUT share (DATADIR) to package it compactly; copy to OS dirs in postinstall \* Makefile.am .gitignore etc. relocate successfully built package files to abs\_top\_builddir \* Change Aix/nut.init to a .in template
- svc-nut.in svc-nut-client.in : consider nut.conf if available \* Solaris/Makefile.am and SVR4 scripts : install Augeas lenses as part of NUT package (in DATADIR at least) \* configure.ac : comment about sysconfdir for NUT \* Sanitize Aix/nut.init.in \* More standardization of Solaris initscripts and SMF methods; use LD\_LIBRARY\_PATH to prefer NUT provided libs in case of conflicts (facilitate bundling with third-party packages) \* Solaris/Makefile.am : add ability to "make check" something here, e.g. validate manifest XMLs \* Solaris SMF XML manifests : fix "dependent" definitions, and add dependencies on required config files \* configure.ac : fix a manually crafted "Checking for" into using AC\_MSG\_Routines \* Solaris SVR4 packaging should now take care of SMF service registration/teardown \* Solaris preremove.in pop up - define the vars \* Solaris scripts : use lower-cased @datadir@ in templates processed by configure \* Solaris/preremove.in : fix FMRI pattern when removing package \* Solaris/postinstall.in : fix SMF manifest dir \* Solaris/postremove.in : fix verbose RM; wipe the /var/run/nut dir too \* Solaris/preremove.in : fix commands when removing package \* Solaris/postinstall.in : enable SMF services if configs are already available (esp. create nut-driver instances) \* Solaris/preremove.in : fix commands when removing package \* Solaris/postinstall.in : enable SMF services if configs are already available (esp. create nut-driver instances) - verbosity \* Solaris/nut-driver-enumerator.xml.in : use a unique dependency name (avoid conflict in nut-driver instances chain of deps) \* systemd manifests after generation \* systemd/README : add recent authors
- Define a NUT\_DATADIR and NUT\_LIBEXECDIR with expanded path values to use in service manifests \* Solaris : packaged service addition/removal more verbose \* nut-driver-enumerator.xml.in nut-driver.xml.in : do not block startup of nut server \* nut.xml.in : do not block startup of nut server due to failed nut-driver-enumerator \* nut-driver-enumerator.sh.in : improve portability by using TAB char as is (not regex \t which gets misinterpreted by some tools) \* nut-driver-enumerator.sh.in : comment the caveats \* nut-driver-enumerator.sh.in : apcsmart is serial only \* nut-driver-enumerator.sh.in : By default, update wrapping of devices into services. ... but keep the door open to other uses of the script \* nut-driver-enumerator.sh.in : refactor a bit and add externally callable actions \* Introduce upsdrcvscctl with semantics similar to upsdrcvctl, but managing stop/start of SMF or systemd unit instances \* nut-driver-enumerator.sh.in : consider possible difference of device and service instance names \* nut-driver-enumerator.sh.in : refactor md5 \* nut-driver-enumerator.xml.in : add REFRESH action and do not die on RESTART \* Mention nut-driver-enumerator and upsdrcvscctl in (systemd/\Solaris/)README \* upsdrcvscctl.in : updated comments \* upsdrcvscctl.in : added a resync option \* Rename Solaris SMF services to match systemd patterns and ease life for sysadmins \* Add systemd nut.target to manage the bundle of NUT services \* config-notes.txt : document the systemd and SMF support in NUT \* nut.dict : update spellchecker \* Solaris/Makefile.am : support copying where attrs can not be preserved \* Solaris postinstall : report if services were not instantly enabled due to missing config files \* upsdrcvscctl.in : reformat prettily \* nut-driver-enumerator.sh.in : wrap usage() \* nut-driver-enumerator.sh.in : added --list-services-for-devices \* **nut-driver@.service.in** : comment about aligning timeouts with ups.conf maxstartdelay \* nut.xml.in : Revise comments \* nut-driver-enumerator.sh.in : when amending service unit instance config for systemd, update the Description to state the NUT device section name \* nut-driver-enumerator.sh.in : support common NUT\_CONFPATH envvar \* Add upsdrcvscctl.txt manpage and references to upsdrcvscctl in other docs \* upsdrcvscctl.txt manpage : refer to service management system logs \* upsdrcvscctl : support "list upname" CLI action to help troubleshooting \* upsdrcvscctl : add handling for "shutdown" command \* Docs about upsdrcvscctl - clarify that it may not be preinstalled with non-SMF/non-systemd OS packages \* Pass spellcheck for upsdrcvscctl doc updates \* Solaris packaging of nut-driver-enumerator.sh : deliver into libexecdin same as in Linux \* Move nut-driver-enumerator.sh.in and upsdrcvscctl.in into scripts/upsdrcvscctl to share on par between Linux and Solaris (for starters) \* Use @NUT\_LIBEXECDIR@ for nut-driver-enumerator.sh \* Introduce nut-driver-enumerator.path.in for systemd \* nut-driver-enumerator.service.in : be part of nut.target, not common multi-user \* Systemd services : be PartOf=nut.target to propagate service stops \* postinstall.in : use NUT\_DATADIR \* nut-monitor.xml.in : depend on nut-server (if locally running) \* nut.xml.in : fix path (use pre-eval-ed version)
- nut-driver-enumerator.sh.in : add a way to print out just an instance suffix name \* nut-driver-enumerator.sh.in : when printing full instance name, do not add stuff if the argument is already a full name \* nut-driver-enumerator.sh.in : implement --get-device-for-service \* nut-driver (systemd/SMF) : use "nut-driver-enumerator.sh --get-device-for-service" for current service instance name \* nut.xml.in : this service is transient \* upsdrcvscctl.in : fix parameter passing \* upsdrcvscctl.in : "clear" the SMF

service state when stopping/starting, just in case it was failed \* nut-driver-enumerator.sh.in : restart upsd IFF the set of known-device mappings was changed \* Revise and relax some dependencies for Solaris SMF services \* nut-driver-enumerator.sh.in : info messages go to stderr; reply for request only goes to stdout \* nut-driver-enumerator.sh.in : complete the upslst\_equals() method \* nut.xml.in : never fail on stop (if component services did not stop, it is their problem) \* Solaris preremove.in SMF : clear services before stopping them, just in case \* upsdrvsvctl.in : post-process clearing of SMF service instances if any have failed \* nut.xml.in : never fail on stop (if component services did not stop, it is their problem) \* Solaris preremove.in SMF : remove nut before services it depends on \* main.c upsdrvctl.c : make debug messages a bit more useful \* Solaris preremove.in SMF : do not block stopping NUT driver services, but follow up with upsdrv(svc)ctl stop of everything \* Solaris preremove.in SMF : sleep after stopping drivers before removing their services \* Solaris preremove.in SMF : force-remove services of drivers \* nut-driver.xml.in : rename a dependency to avoid conflicts \* Solaris nut.xml.in : add a refresh action handler \* Solaris postinstall.in SMF : first use nut-driver-enumerator.sh.in to just register the mappings, no autostarts \* Solaris preremove.in SMF : stop drivers with common method (and use NUT\_SBINDIR) before going one by one \* Solaris postinstall.in SMF : start the drivers via upsdrvsvctl after registering (so the mapping is stable) \* Solaris postinstall.in preremove.in : NUT\_SBINDIR ⇒ SBINDIR \* Add manpage for nut-driver-enumerator[8] \* Handle EXTRA\_DIST of scripts/upsdrvsvctl/ with their own Makefile \* nut-driver-enumerator.txt : change to be more like other page sources \* Spellcheck nut-driver-enumerator.txt \* Add scripts/upsdrvsvctl/README \* Update gitignores \* List new manpages upsdrvsvctl nut-driver-enumerator in index \* Add upsdrvsvctl do scripts/Makefile.am SUBDIRS \* upsdrvsvctl.in nut-driver-enumerator.sh.in : Add a way to show configs per device

- nut-driver-enumerator.sh.in : fix upsconf\_getValue() to return success if key was found, or report an error if not \* nut-driver-enumerator.sh.in : expose upsconf\_getValue() as --show-device-config-value \* nut-driver-enumerator.sh.in : NOTE on top about the choice of simplified shell \* nut-driver-enumerator.sh.in : in upsconf\_getSection() stop after printing out the section contents \* nut-driver-enumerator.sh.in : refactor upsconf\_getValue() to use upsconf\_getSection() \* nut-driver-enumerator.sh.in : update comment in header \* nut-driver-enumerator.service.in : do not fail the systemd unit, it cannot restart \* Fix references for configure.in to point to configure.ac nowadays \* nut-driver-enumerator.sh.in : use fully-pathed SMF svccfg in all parts of code consistently \* nut-driver-enumerator.sh.in : comment about not-detecting reconfigurations of existing sections currently
- docs/man/Makefile.am, scripts/subdriver/gen-snmplib-subdriver.sh: Upstream smaller fixes from 42ity NUT (#587) \* gen-snmplib-subdriver.sh : replace multiline "echo" with questionnal tabbing by a single-string "printf" \* docs/man/Makefile.am : fix merge error that broke manpage packaging

## 2.1347 2018-08-14 Jim Klimov <jim@jimklimov.com>

- m4/nut\_check\_libneon.m4: nut\_check\_libneon.m4 : comment about detecting without pkgconfig as a fallback
- m4/nut\_check\_libavahi.m4: nut\_check\_libavahi.m4 : typo fix

## 2.1348 2018-08-07 Jim Klimov <jim@jimklimov.com>

- drivers/powerware-mib.c: powerware-mib.c : fix fallout from "snmp-ups: support newer Genepi management cards" (unused variable warning)

## 2.1349 2018-08-07 Arnaud Quette <ArnaudQuette@Eaton.com>

- drivers/powerware-mib.c: snmp-ups: support newer Genepi management cards \* duplicate some OIDs, with refinement to point at the first index (i.e ".0" or ".1.0") since otherwise the agent doesn't respond to queries. This could be fixed at the snmp-ups level later
- fixed "ups.type" (power topology of the UPS) which was pointing at the output.source or ups.mode

## 2.1350 2018-08-02 Arnaud Quette <ArnaudQuette@Eaton.com>

- drivers/eaton-pdu-marlin-mib.c: snmp-ups: Eaton feed color is semi static

**2.1351 2018-07-31 Daniele Pezzini <hyouko@gmail.com>**

- tools/nut-scanner/nut-scanner.c: nutscanner: get debug level early (for nutscan\_init()) and restore options (#541) \* Revert "Problem: nutscan\_init() called before debug is enabled" This reverts commit f613d45f78c96c290a1d63d4a2c3f28385d90d42. When parsing the command line (or showing help), many options rely on a nutscan\_avail\_\* var already initialized by nutscan\_init() — moving that call after the parsing of opts renders those options unavailable. \* nutscanner: parse debug level opts separately before anything else In order to have early the value of the desired debug level (needed to correctly debug nutscan\_init()), split the parsing of command line options into two loops: - the first one, before the call to nutscan\_init(), will only care about debug level, - the second one, after the call to nutscan\_init(), will consider the remaining (and possibly depending on a nutscan\_avail\_\* var already initialized by nutscan\_init()) arguments (and moan in case of errors). Closes <https://github.com/networkupstools/nut/issues/500>

**2.1352 2018-07-28 Daniele Pezzini <hyouko@gmail.com>**

- drivers/nutdrv\_qx.c: nutdrv\_qx: support USB devices that don't close their replies with a CR Since some devices, when communicating via USB, don't close their replies to our commands/queries with the expected (and mandated by the specs) CR, rendering the driver almost useless as protocols get one less character than they expect, update the various USB subdrivers (leaving out the ones that rely on a CR to stop reading from the device) to add the missing terminating CR in such cases (as long as we get anything usable). This is a bit of a cheat, but, at least for now, it will do — not to mention the fact that it is way less invasive than touching all the places of the driver that expect a closing CR and all the qx2nut tables of the various protocols. Close <https://github.com/networkupstools/nut/issues/441>

**2.1353 2018-07-25 mbastiaan <35669404+mbastiaan@users.noreply.github.com>**

- drivers/tripplite\_usb.c: input\_voltage\_nominal, added case 6 SMX500RT1U 230V requires case 6.
- drivers/tripplite\_usb.c: Update tripplite\_usb.c Incremented driver version for [pull request #584](#)
- data/driver.list.in: Update driver.list.in Added new line for SMX500RT1U with product ID 0001. Updated line for other product IDs

**2.1354 2018-07-24 mbastiaan <35669404+mbastiaan@users.noreply.github.com>**

- drivers/tripplite\_usb.c: Update tripplite\_usb.c Added battery.charge status for 3005 protocol. Tested on SMX500RT1U, charge level seems ok-ish considering how it's calculated and the voltage jumping up and down.

**2.1355 2018-06-26 Arnaud Quette <ArnaudQuette@Eaton.com>**

- docs/nut-names.txt: Complete missing variables input.feed.{desc,color}, input.realpower.nominal and outlet.group.n.input. Also add a note on outlet.group actions NOTE: Cherry-picked from FTY branch commit e5505f63eab which had a conflicting definition of input.realpower.nominal dropped here (and in original FTY branch by later commits).
- docs/nut-names.txt, drivers/eaton-pdu-marlin-mib.c: snmp-ups: Eaton ePDU input.power.nominal is realpower Fix data name, since the published value is in Watts, so realpower, not power

**2.1356 2018-06-17 Links <help.markus+gitk@gmail.com>**

- drivers/mge-hid.c: get PowerWalker VFI 2000 TGS working, read values correctly

**2.1357 2018-05-24 Charles Lepple <clepple+nut@gmail.com>**

- drivers/tripplite-hid.c: usbhid-ups: Add support for Delta/Minuteman UPS <https://github.com/networkupstools/nut/issues/555>

**2.1358 2018-05-22 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>**

- .travis.yml, ci\_build.sh: Change the Travis test-case for NO\_PKG\_CONFIG==true

**2.1359 2018-05-18 Arnaud Quette <[ArnaudQuette@Eaton.com](mailto:ArnaudQuette@Eaton.com)>**

- scripts/subdriver/gen-snmp-subdriver.sh: Improve the SNMP subdriver generation script Provide a 3rd mode to allow an offline creation for a complete MIB walk. In this mode, we get data from 1 file (numeric snmpwalk dump of the whole SNMP tree). The sysOID is extracted from the dump, and only the pointed subtree is used. A MIB file MUST be provided, and is used to produce the string SNMP walk. Also reformatted the whole script using tab only, and reconciled with the DMF version.

**2.1360 2018-05-15 Bernhard M. Wiedemann <[githubbmw@lsmode.de](mailto:githubbmw@lsmode.de)>**

- tools/nut-snmppinfo.py, tools/nut-usbinfopl: Sort input file list (#528) so that nut builds in a reproducible way in spite of indeterministic filesystem readdir order and <http://bugs.python.org/issue30461> See <https://reproducible-builds.org/> for why this is good.

**2.1361 2018-05-04 Matthijs ten Berge <[m.tenberge@awl.nl](mailto:m.tenberge@awl.nl)>**

- docs/man/nutdrv\_siemens\_sitop.txt: Spelling fix
- drivers/nutdrv\_siemens\_sitop.c: Remove %-sign from variable values
- drivers/nutdrv\_siemens\_sitop.c: Fix line endings
- docs/man/nutdrv\_siemens\_sitop.txt: Better explanation of serial port polling

**2.1362 2018-05-02 Daniele Pezzini <[hyouko@gmail.com](mailto:hyouko@gmail.com)>**

- drivers/nutdrv\_qx.c: nutdrv\_qx: in sgs USB subdriver, use #define'd value for USB timeouts

**2.1363 2018-04-11 Matthijs ten Berge <[m.tenberge@awl.nl](mailto:m.tenberge@awl.nl)>**

- data/driver.list.in, docs/man/Makefile.am, docs/man/{siemens-sitop.txt ⇒ nutdrv\_siemens\_sitop.txt}, drivers/Makefile.am, drivers/{siemens-sitop.c ⇒ nutdrv\_siemens\_sitop.c}: Rename driver siemens-sitop to nutdrv\_siemens\_sitop As requested in <https://github.com/networkupstools/nut/pull/545#pullrequestreview-106712942>

**2.1364 2018-03-26 Matthijs ten Berge <[m.tenberge@awl.nl](mailto:m.tenberge@awl.nl)>**

- drivers/siemens-sitop.c: Various code improvements after review - The number of delimiter characters is no longer hard-coded, but will be detected and thrown away at runtime - Discard any remains in the RX buffer after communication errors - collapse repeating code - upsdrv\_shutdown now uses instcmd (removes duplicate code) - obsolete ups.\* variables removed - poll\_interval not hard-coded, but give a warning when a large value is encountered - option parsing improved
- docs/man/siemens-sitop.txt: Improve manpage layout

**2.1365 2018-03-23 Matthijs ten Berge <[m.tenberge@awl.nl](mailto:m.tenberge@awl.nl)>**

- docs/man/siemens-sitop.txt, docs/nut.dict: Spellcheck fixes
  - data/driver.list.in, docs/man/Makefile.am, docs/man/siemens-sitop.txt, drivers/Makefile.am, drivers/siemens-sitop.c: Initial commit of siemens-sitop: driver for Siemens SITOP UPS500-series UPSes
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**2.1366 2018-03-17 Steve Gilbert <stevegilbert23@gmail.com>**

- drivers/libhid.c: In HIDGetEvents.c call to get\_interrupt, increase timeout from 250 to 750 ms to allow more time for UPS response (cherry picked from commit 5cea18c04a79cd873347efeffb6bb869edd8643e --@clepple) Closes: <https://github.com/networkupstools/nut/pull/543> Closes: <https://github.com/networkupstools/nut/issues/542>

**2.1367 2018-03-15 Daniele Pezzini <hyouko@gmail.com>**

- tools/nut-scanner/scan\_usb.c: nutscanner: in scan\_usb.c, nullify free()'d pointers that are later reused We assign 'device\_name', 'serialnumber' and 'vendor\_name' only if the analyzed device provides that data and, since we use these pointers also to check if those items are available so that we can store and free() them, after free()'ing them we must make them NULL, or the next device, if it does not provide that data, will inherit the old (now free()'d) pointer and will attempt to access it and re-free() it.
- drivers/libusb1.c: libusb1: don't use the same var to iterate both devices and interface descriptor From our old libusb.c, libusb1.c inherited a for loop that iterates over the interface descriptor in order to try and find the HID descriptor among its *extra* bytes. Unluckily, it uses the same var (i) that's now used, at the same time, for the iteration through the device list, in which it happens to be nested. Since this obviously spells disaster, make these vars unique (and add a bit of debugging info).

**2.1368 2018-03-14 Daniele Pezzini <hyouko@gmail.com>**

- data/cmdvartab, docs/nut-names.txt: libusb: update example of driver.version.usb and add it to cmdvartab
- data/cmdvartab, docs/nut-names.txt: libusb: update example of driver.version.usb and add it to cmdvartab
- drivers/libusb1.c: libusb1: publish actual libusb version
- tools/nut-scanner/scan\_usb.c: libusb: in nutscanner, free busname also on nutscan\_new\_device() errors or when done with it
- drivers/bcmxcp\_usb.c, drivers/libusb0.c, drivers/libusb1.c, drivers/nutdrv\_atcl\_usb.c, drivers/richcomm\_usb.c, tools/nut-scanner/scan\_usb.c: libusb: improve handling of errors when allocating new memory - libusb 0.1 (when not shared with libusb 1.0): prefer our xstrdup() function — on errors, it'll automatically call fatal\*(), - libusb 1.0 (and nutscanner): don't use our x{ malloc, strdup, ... }() functions, so that we can free the list of devices (and close the device and call libusb\_exit() in nutscanner) before exiting.
- drivers/libusb1.c: libusb1: publish the interface we are actually using
- drivers/richcomm\_usb.c: richcomm\_usb: use the local USB device handle in usb\_device\_open() Although at that point of usb\_device\_open(), both the local (handle) and the global (udev) device handles point to the same thing, prefer the local one to make things clearer.
- drivers/bcmxcp\_usb.c, drivers/libusb0.c, drivers/libusb1.c, drivers/nutdrv\_atcl\_usb.c, drivers/richcomm\_usb.c, tools/nut-scanner/scan\_usb.c: libusb: clean up after ourselves libusb 1.0: - a device list allocated with libusb\_get\_device\_list() must be deallocated with a call to libusb\_free\_device\_list(), - ditto for the config descriptor. libusb 0.1 and 1.0: - release (commented-out) interfaces when done with them, - remove unnecessary goto's after calls to fatal\*() functions, - nutscanner: also close the USB device handle (and libusb\_exit() for libusb 1.0) on errors.

**2.1369 2018-03-13 Georg Altmann <george@george-net.de>**

- docs/nut.dict: doc: update nut.dict
- INSTALL.nut: doc: Update installation instructions for FreeBSD Details usb device permissions. Also pkg and new port config style.

**2.1370 2018-03-13 Daniele Pezzini <hyouko@gmail.com>**

- drivers/bcmxcp\_usb.c, drivers/tripplite\_usb.c: usb drivers: free USBDevice\_t's dynamically allocated items when cleaning

**2.1371 2018-03-10 Patrik Dufresne <ikus060@kase>**

- drivers/powerp-txt.c: Fix tabs
- drivers/powerp-txt.c: Change status line parsing for CyberPower OR1500LCDRTL2U Add a new way to parse the status line in powerpanel text driver to support CyberPower model OR1500LCDRTL2U with serial cable. This model doesn't provide temperature, but does provide runtime.

**2.1372 2018-03-09 Jim Klimov <jim@jimklimov.com>**

- drivers/main.c, drivers/upsdrvctl.c: main.c upsdrvctl.c : make debug messages a bit more useful

**2.1373 2018-03-05 Daniele Pezzini <hyouko@gmail.com>**

- drivers/richcomm\_usb.c: richcomm\_usb: don't libusb\_exit() when closing a previously opened device
- drivers/nutdrv\_atcl\_usb.c: nutdrv\_atcl\_usb: don't libusb\_exit() when closing a previously opened device
- drivers/libusb1.c: libusb1: don't libusb\_exit() when closing a previously opened device
- drivers/riello\_usb.c: riello\_usb: use libusb\_bulk\_transfer() for bulk operations
- drivers/nutdrv\_atcl\_usb.c: nutdrv\_atcl\_usb: add missing *inline* keyword

**2.1374 2018-03-04 Charles Lepple <clepple+nut@gmail.com>**

- drivers/usbhid-ups.c: usbhid-ups: fix instcmd logging before fallback check The hidups\_item pointer needs to be checked for NULL before dereferencing.

**2.1375 2018-02-28 Jim Klimov <jimklimov@gmail.com>**

- drivers/snmp-ups.c: Fix the recently added update for Avocent support (#532) \* Problem: snmp-ups segfaults Solution: base\_snmp\_template\_index() prevented from processing empty argument
- Problem: index has to be counted for any device not just for daisychain Solution: counted for both \* Problem: debug info needs improvement Solution: added \* drivers/snmp-ups.c : bump the version for public-release driver fix \* snmp-ups.c : Fix indentation for recent fixes

**2.1376 2018-02-28 Arnaud Quette <ArnaudQuette@Eaton.com>**

- docs/nut.dict: Add Avocent to the spell check list

**2.1377 2018-02-27 Arnaud Quette <ArnaudQuette@Eaton.com>**

- NEWS: Update NEWS for Emerson Avocent PM3000 PDU

**2.1378 2018-02-20 Bernhard M. Wiedemann <bwiedemann@suse.de>**

- tools/nut-usbinfo.pl: Cleanup usbinfo code to reduce code duplication and solve an associated FIXME
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**2.1379 2018-02-16 Arnaud Quette <ArnaudQuette@Eaton.com>**

- data/driver.list.in, drivers/Makefile.am, drivers/emerson-avocent-pdu-mib.c, drivers/emerson-avocent-pdu-mib.h, drivers/snmp-ups.c: snmp-ups: Add support for Emerson Avocent PM3000 PDU
- drivers/snmp-ups.c, drivers/snmp-ups.h: snmp-ups: various improvements This prepares the addition of newer devices

**2.1380 2018-01-11 Daniele Pezzini <hyouko@gmail.com>**

- m4/nut\_check\_libusb.m4: autoconf: support libusb 0.1 implementations identified as *libusb-0.1* Make NUT\_CHECK\_LIBUSB macro aware of those libusb 0.1 implementations named in their pkg-config files as *libusb-0.1*, instead of just *libusb* (e.g. on FreeBSD).

**2.1381 2018-01-10 Daniele Pezzini <hyouko@gmail.com>**

- drivers/nutdrv\_qx.c: nutdrv\_qx: update USB errors handling to support both libusb 0.1 and 1.0

**2.1382 2018-01-03 Jim Klimov <jim@jimklimov.com>**

- configure.ac, scripts/augeas/Makefile.am: Define an auglenstestsdire to install the augeas test\_nut.aug file

**2.1383 2018-01-02 Charles Lepple <clepple+nut@gmail.com>**

- configure.ac: Fix AC\_MSG\_\*() quoting The autoconf quote characters are [ and ] - no need for ".

**2.1384 2018-01-01 Charles Lepple <clepple+nut@gmail.com>**

- m4/nut\_check\_libusb.m4: Add autoconf check for libusb\_strerror() Closes: <https://github.com/networkupstools/nut/issues/509>
- docs/man/nutdrv\_qx.txt, docs/man/snmp-ups.txt, docs/man/ups.conf.txt, docs/man/usbhid-ups.txt: doc: Clean up description of pollfreq and USB interrupts Closes: <https://github.com/networkupstools/nut/issues/476>

**2.1385 2017-12-31 Jim Klimov <jim@jimklimov.com>**

- configure.ac: configure.ac : Avoid rebuilding existing man=dist build products due to their timestamp dependencies
- configure.ac: configure.ac : add support for --with-doc=man=dist-auto to prefer pre-dist docs if available

**2.1386 2017-12-05 Jim Klimov <jim@jimklimov.com>**

- .travis.yml: .travis.yml : add a test-case for builds in absence of pkg-config in the OS

**2.1387 2017-11-29 Arnaud Quette <ArnaudQuette@Eaton.com>**

- docs/configure.txt, docs/man/nutupsdrv.txt, docs/man/upsd.txt: doc: missing documentation for NUT\_\* env vars Complete documentation for upsd and drivers related to the environment variables NUT\_CONFPATH, NUT\_STATEPATH and NUT\_ALTPIDPA

**2.1388 2017-11-28 Arnaud Quette <ArnaudQuette@Eaton.com>**

- docs/man/usbhid-ups.txt: doc: minor formatting in usbhid-ups man page
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**2.1389 2017-11-27 Jim Klimov <jim@jimklimov.com>**

- tools/nut-scanner/nut-scanner.c: Problem: nutscan\_init() called before debug is enabled Solution: Move the call to this stateless function to the point after we parse arguments and just before we'd start the actual scans. Later this can be extended to also consider which scans were requested and so which libs to load. Thanks to @clepple for research in <https://github.com/networkupstools/nut/issues/500>

**2.1390 2017-11-27 Arnaud Quette <ArnaudQuette@Eaton.com>**

- docs/man/nutupsdrv.txt: doc: reword nutupsdrv man page Reference: <https://github.com/networkupstools/nut/issues/476>

**2.1391 2017-11-26 Charles Lepple <clepple+nut@gmail.com>**

- docs/man/usbhid-ups.txt: doc: reword other parts of usbhid-ups man page
- docs/man/usbhid-ups.txt: doc: mention CPS delay quirks in usbhid-ups man page Closes: <https://github.com/networkupstools/nut/issues/432>
- tools/nut-scanner/scan\_usb.c: nut-scanner: update usb\_get\_string\_simple() for libusb-1.0 API Closes: <https://github.com/networkupstools/nut/issues/499>
- drivers/libusb1.c: libusb1: const-ify the USB interface number Remove a few "magic numbers" from USB/HID-related calls.
- drivers/libusb1.c: libusb1: LBYL approach to libusb\_set\_auto\_detach\_kernel\_driver() Switch to look-before-you-leap (LBYL) approach to calling libusb\_set\_auto\_detach\_kernel\_driver(), since FreeBSD (11.0 and 11.1; probably others) requires root privileges to attempt the kernel driver detach (even if no detach operation is needed).
- m4/nut\_check\_libusb.m4: libusb1: check for libusb\_kernel\_driver\_active()

**2.1392 2017-11-21 Charles Lepple <clepple+nut@gmail.com>**

- data/driver.list.in: HCL: Change Riello IDG/IPG support level to 4 The IDG and IPG models were not included in the protocol documentation provided to the NUT project. Some values are also returned as 0xFF/0xFFF/0xFFFF - see the HCL for details. Source: <http://lists.aliases.debian.org/pipermail/nut-upsdev/2017-November/007357.html>

**2.1393 2017-11-17 Arnaud Quette <ArnaudQuette@Eaton.com>**

- drivers/eaton-ats16-nmc-mib.c, drivers/eaton-pdu-marlin-mib.c, drivers/mge-mib.c, drivers/mge-xml.c, drivers/powerware-mib.c: Modify "open" to "opened" for dry contacts status While "open" is the best adjective for the opposite of "closed", and thus suitable for GPI status, this may lead to confusion with the GPO actions "open\close" Vs the GPI status "opened\closed". These last are also not inappropriate, since they can refer to the fact that the GPI state has change due to some external action or event
- NEWS: Update NEWS for next release
- NEWS: Update NEWS for next release
- docs/man/nutupsdrv.txt, docs/man/usbhid-ups.txt: man pages: clarification on polling parameters Explain difference between pollfreq and pollinterval in usbhid-ups, and highlight the pollinterval parameter use from ups.conf in nutupsdrv Closes: <https://github.com/networkupstools/nut/issues/476>
- data/driver.list.in: HCL: Eaton 9PX supported by mge-shut, usbhid-ups and netxml-ups
- data/driver.list.in: HCL: Eaton ATS 30 supported by snmp-ups
- drivers/Makefile.am, drivers/mge-hid.c: mge-shut/usbhid-ups: compute Output load for Eaton UPS When HID data UPS.PowerConversion is not present, compute a realpower approximation using available data. This is needed for Eaton 5E and some other units Closes: <https://github.com/networkupstools/nut/issues/484>

**2.1394 2017-11-03 Arnaud Quette <ArnaudQuette@Eaton.com>**

- drivers/eaton-ats16-nm2-mib.c, drivers/eaton-ats16-nmc-mib.c, drivers/mge-mib.c, drivers/mge-xml.c, drivers/powerware-mib.c: Add support for dry contacts to Eaton ATS16 and UPS Add support for the 2 GPI accessible through EMP001 environmental sensor, connected to a UPS or ATS16. The same is already available for Eaton ePDU. This affect the snmp-ups driver (eaton\_ats16 and pw/pxgx\_ups MIBs), and the netxml-ups driver

**2.1395 2017-10-31 barraudl <lilianbarraud@eaton.com>**

- tools/nut-scanner/Makefile.am, tools/nut-scanner/README, tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-init.c, tools/nut-scanner/nutscan-init.h: Revise use of semaphores in nut-scanner vs libnutscanner Original commit in 42ITy fork in 2017: "Fix the Debian package generation" Adapted into NUT upstream code, considering 4 years of codebase evolution, in 2021:

**2.1396 2017-10-30 Michal Marek <MichalMarek1@eaton.com>**

- Makefile.am, configure.ac, scripts/systemd/Makefile.am: configure.ac: Fix systemd shutdown directory detection The which is not true on many biarch Linux distros with /lib64. Instead of guessing, use pkg-config to find the path and provide a --with-systemdshutdownindir option so that make distcheck can override it. Also, rename the internal variable to systemdshutdownindir to rhyme with the respective systemd.pc variable.

**2.1397 2017-10-30 Arnaud Quette <ArnaudQuette@Eaton.com>**

- drivers/eaton-pdu-marlin-mib.c: eaton-pdu-marlin-mib.c/dmf: add outlet timers Add support for shutdown and start timers

**2.1398 2017-10-23 barraudl <lilianbarraud@eaton.com>**

- configure.ac, tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http.c: Add thread limitation to avoid memory error Original development in 42ITy fork in 2017: UPDATE: Merged with NUT upstream, considering evolution of codebases over 4 years since original commit, revised 2021:

**2.1399 2017-10-20 Jim Klimov <jimklimov@gmail.com>**

- configure.ac: Problem: configure fails on system without pkg-config Solution: detect presence and usability of pkg-config program and autotools macros (they end up as unexpanded tokens if pkg-config is not installed), and use this knowledge to proceed with search for libcppunit - or not. When the test is optional, we should not kill the build if we can not make it due to missing tools.

**2.1400 2017-10-17 Arnaud Quette <ArnaudQuette@Eaton.com>**

- drivers/eaton-pdu-marlin-mib.c: snmp-ups: fix Eaton ePDU group phase handling Remove the not needed SU\_FLAG\_UNIQUE and the erroneous value lookup structure index
- drivers/eaton-pdu-marlin-helpers.c, drivers/eaton-pdu-marlin-helpers.h, drivers/eaton-pdu-marlin-mib.c: snmp-ups: simplify Eaton ePDU group phase handling

**2.1401 2017-10-13 Jim Klimov <jim@jimklimov.com>**

- drivers/eaton-pdu-marlin-mib.c: eaton-pdu-marlin-mib.c : updated comments about input/feed relationship, and daisychain implications
  - drivers/eaton-pdu-marlin-mib.c: eaton-pdu-marlin-mib.c : fix OID and raise questions on input.power.nominal
-

**2.1402 2017-10-13 Arnaud Quette <ArnaudQuette@Eaton.com>**

- drivers/eaton-pdu-marlin-mib.c: Problem: Need to fix published feed variables Solution: Attach 1 feed to the current input

**2.1403 2017-10-11 Jim Klimov <jim@jimklimov.com>**

- drivers/snmp-ups.c: snmp-ups.c : publish device.count==1 too
- drivers/eaton-pdu-marlin-helpers.c: eaton-pdu-marlin-helpers.c : in device\_count helper do not assume a trailing comma (as last char) as an extra device
- drivers/eaton-pdu-marlin-mib.c: eaton-pdu-marlin-mib.c : preferred templated outlet.%i.name goes last in MIB
- drivers/eaton-pdu-marlin-helpers.c, drivers/eaton-pdu-marlin-helpers.h: eaton-pdu-marlin-\* : add support for extended fun/nuf 12s/s2l conversions
- drivers/eaton-pdu-marlin-mib.c: eaton-pdu-marlin-mib.c : Revised added OIDs with a single-group ePDU Also update line-breaks for readability and 80-col standard
- drivers/snmp-ups.c, drivers/snmp-ups.h: snmp-ups.[ch] : introduce SU\_FLAG\_SEMI\_STATIC
- drivers/eaton-pdu-marlin-mib.c: eaton-pdu-marlin-mib.c : line-breaks for readability and 80-col standard - pass 2
- drivers/eaton-pdu-marlin-mib.c: eaton-pdu-marlin-mib.c : line-breaks for readability and 80-col standard

**2.1404 2017-10-09 Jim Klimov <jim@jimklimov.com>**

- drivers/eaton-pdu-marlin-helpers.c, drivers/eaton-pdu-marlin-helpers.h, drivers/eaton-pdu-marlin-mib.c: eaton-pdu-marlin-mib.c / drivers/eaton-pdu-marlin-helpers.[ch] : Implement conversion func for "device.count" which returns a comma-separated list
- drivers/eaton-pdu-marlin-helpers.c, drivers/eaton-pdu-marlin-helpers.h, drivers/eaton-pdu-marlin-mib.c: eaton-pdu-marlin-mib.c / drivers/eaton-pdu-marlin-helpers.[ch] : Implement conversion func for "outlet.group.%i.phase"
- docs/nut-names.txt, drivers/eaton-pdu-marlin-mib.c: eaton-pdu-marlin-mib.c : add basic listing of newly defined OIDs (not a full solution - some mapping functions are needed and revision of MIB data types)

**2.1405 2017-10-08 Charles Lepple <clepple+nut@gmail.com>**

- NEWS, UPGRADING, docs/nut.dict: Spell-check release notes
  - NEWS, UPGRADING: Update NEWS and UPGRADING for next release Current as of master @ b8df06b761, assuming libusb-1.0\+0.1 gets merged
  - docs/hid-subdrivers.txt: hid-subdrivers.txt: fix explore command line Also reformat some surrounding text. Closes: <https://github.com/networkupstools/nut/issues/436>
  - docs/hid-subdrivers.txt: hid-subdrivers.txt: clarify Tripp-Lite USB reference Closes: <https://github.com/networkupstools/nut/issues/452>
  - docs/man/powerpanel.txt: powerpanel: emphasize that this driver is serial-only Apparently, the PowerPanel Plus vendor tool also has USB support.
  - docs/man/belkin.txt, docs/man/belkinunv.txt: belkin/belkinunv: add links to man pages for other Belkin drivers
  - docs/man/triplite\_usb.txt: triplite\_usb: update man page \* Fix link to triplitesu(8) \* Add 3005 protocol \* Update protocol variable name
  - docs/man/dummy-ups.txt: dummy-ups: last state should be "OB LB" to match text Also corrected a typo.
-

**2.1406 2017-10-04 Daniele Pezzini <[hyouko@gmail.com](mailto:hyouko@gmail.com)>**

- `configure.ac`, `m4/nut_check_libusb.m4`: libusb 1.0 port: directly use `--with-usb` to choose the library

**2.1407 2017-10-03 Arnaud Quette <[ArnaudQuette@Eaton.com](mailto:ArnaudQuette@Eaton.com)>**

- `docs/configure.txt`: Remove an extraneous point
- `docs/configure.txt`: Update configure documentation for libusb Document the possibility to override the auto-detection choice, even though the implementation of this override is not yet currently working
- `docs/configure.txt`: Update configure documentation for libusb Document the possibility to override the auto-detection choice
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- `docs/configure.txt`: Update configure documentation for libusb Document the possibility to override the auto-detection choice, even though the implementation of this override is not yet currently working

**2.1408 2017-10-02 Daniele Pezzini <[hyouko@gmail.com](mailto:hyouko@gmail.com)>**

- `docs/configure.txt`, `m4/nut_check_libusb.m4`: libusb 1.0 port: support libusb 0.1/-compat even when 1.0 is available Since libusb 1.0 can happily coexist with libusb 0.1/libusb-compat, rework our `NUT_CHECK_LIBUSB` macro so that, if both are available, libusb 1.0 precedence can be overridden passing to `configure` appropriate values for `--with-usb-includes` and `--with-usb-libs` (i.e. libusb 0.1/libusb-compat-only settings).
- `m4/nut_check_libusb.m4`: libusb 1.0 port: expand a bit the introductory comment of libusb ac macro
- `m4/nut_check_libusb.m4`: libusb 1.0 port: use only one `AC_DEFINE`'d variable for libusb 0.1/-compat Libusb 0.1/libusb-compat can be found with both `pkg-config` and with its own `libusb-config`, but, regardless of how we found it, we need to use the same `AC_DEFINE`'d variable to signal its presence.
- `m4/nut_check_libusb.m4`: libusb 1.0 port: don't check if libusb is usable, if it's not available Since `LIBUSB_VERSION` is always non-empty (*none*, if libusb is not found), testing for non-emptiness will always fail and libusb 0.1/libusb-compat checks will always be performed. So, test instead that it is not *none*.

**2.1409 2017-09-21 Spiros Ioannou <[sivann@inaccess.com](mailto:sivann@inaccess.com)>**

- `drivers/phoenixcontact_modbus.c`: `phoenixcontact_modbus`: fix stale data detection Also mark driver as `DRV_BETA` Source: <http://lists.athia.debian.org/pipermail/nut-upsdev/2017-September/007331.html>

**2.1410 2017-09-17 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>**

- `configure.ac`, `tests/Makefile.am`: Improve configure script and recipe for CPPUNIT and C++11 detection \* Detect C++11 support and its use for CPPUNIT tests through `configure.ac` - should address [issue #472](#) \* Report after detecting C++11 support, presence of `libcppunit`, and request for `valgrind`, whether we'd build the cppunit tests \* Update relevant comments in `configure.ac`
  - `drivers/libusb0.c`, `drivers/libusb1.c`: `libusb0.c` / `libusb1.c` : report more visibly if we encountered errors accessing the device ([issue #477](#))
  - `drivers/libusb0.c`, `drivers/libusb1.c`: `libusb0.c` / `libusb1.c` : sanitize indentation and break up long-lines
  - `configure.ac`: `configure.ac` : look for CPPUNIT after detecting `pkg-config` presence, can help vs. [issue #478](#)
-

**2.1411 2017-09-06 Jim Klimov <jim@jimklimov.com>**

- common/common.c: common.c : dflt\_statepath() / altpidpath() : support defined-but-empty envvars to have same effect as not-defined
- common/common.c: common.c : altpidpath() : support priority of an envvar, like statepath does

**2.1412 2017-09-05 Jim Klimov <jim@jimklimov.com>**

- drivers/main.c: main.c : update usage message with hints about running as unprivileged user

**2.1413 2017-08-30 Jim Klimov <jim@jimklimov.com>**

- drivers/eaton-pdu-marlin-mib.c: Fix typo in OID, noticed by aquette

**2.1414 2017-08-28 Jim Klimov <jimklimov@gmail.com>**

- .travis.yml, clients/upsclient.c, drivers/dstate.h, drivers/eaton-pdu-marlin-mib.c, tests/Makefile.am: A few small fixes for cleaner codebase and compilations (#466) \* dstate.h : use our timehead.h to have "struct timeval" defined \* eaton-marlin : cosmetic whitespace fixes \* tests/Makefile.am : cppunit should build with C++11 \* .travis.yml : make sure to use "docker" env with its gcc-4.8\+ for support of C\++11 in cppunit tests

**2.1415 2017-08-24 Jim Klimov <jim@jimklimov.com>**

- drivers/eaton-pdu-marlin-mib.c, drivers/snmp-ups.c, drivers/snmp-ups.h: snmp-ups / eaton-marlin : introduce WITH\_SNMP\_LKP\_FU to separate codebases that support these callbacks from those that currently do not
- drivers/eaton-pdu-marlin-helpers.c, drivers/eaton-pdu-marlin-helpers.h: eaton-pdu-marlin-helpers.c/h fix
- drivers/eaton-pdu-marlin-helpers.c: eaton-pdu-marlin-helpers.c : update comments for marlin\_outlet\_group\_phase\_fun()
- docs/Makefile.am: docs/Makefile.am : fix up access rights for other files in docs too (some PNGs end up inaccessible otherwise)

**2.1416 2017-08-23 Jim Klimov <jimklimov@gmail.com>**

- docs/snmp-subdrivers.txt, drivers/Makefile.am, drivers/eaton-mib.h, drivers/eaton-pdu-genesis2-mib.c, drivers/eaton-pdu-genesis2-mib.h, drivers/{eaton-mib.c ⇒ eaton-pdu-marlin-mib.c}, drivers/eaton-pdu-marlin-mib.h, drivers/eaton-pdu-pulizzi-mib.c, drivers/eaton-pdu-pulizzi-mib.h, drivers/eaton-pdu-revelation-mib.c, drivers/eaton-pdu-revelation-mib.h, drivers/snmp-ups.c: Eaton ePDU SNMP MIB file split in four (#465) \* snmp-subdrivers.txt : reference the multitude of eaton subdrivers \* eaton-mib.h renamed into separate constituent headers \* eaton-mib.c renamed into separate constituent sources, earlier history retained in eaton-pdu-genesis2-mib.c \* eaton-pdu-revelation-mib.c eaton-pdu-pulizzi-mib.c eaton-pdu-genesis2-mib.c : no use to include dstate.h here \* eaton-pdu-marlin-mib.c eaton-pdu-revelation-mib.c : port the renamed structure names from original eaton-mib.c evolution

**2.1417 2017-08-23 Jim Klimov <jim@jimklimov.com>**

- drivers/Makefile.am, drivers/eaton-pdu-marlin-helpers.c, drivers/eaton-pdu-marlin-helpers.h: Expel the helper function that interacts with dstate from eaton-pdu-marlin-mib.c to eaton-pdu-marlin-helpers.c/h

**2.1418 2017-08-23 Christian Ehrhardt <[christian.ehrhardt@canonical.com](mailto:christian.ehrhardt@canonical.com)>**

- drivers/Makefile.am: automake: only pass net-snmp cflags to snmp-ups (#464) Other than formerly assumed in the makefile cflags can be more than includes. And some of them need to be in sync in regard to CFLAGS and LDFLAGS - for example usage of -fPIE. This conflicts with a current assumption in the makefile "In any case, CFLAGS are only -I options, so there is no harm". On a Distribution where PIE is enabled by default, but disabled for special cases (like net-snmp) the configure detection gets them as: LIBNETSNMP\_CFLAGS = -DNETSNMP\_ENABLE\_IPV6 -fno-strict-aliasing -g -O2 -fdebug-prefix-map=/build/net-snmp-nlMQSZ/net-snmp-5.7.3\+dfsg=. -specs=/usr/share/dpkg/no-pie-compile.specs -fstack-protector-strong -Wformat -Werror=format-security -DNETSNMP\_USE\_INLINE -Ulinux -Dlinux=linux -D\_REENTRANT -D\_GNU\_SOURCE -DDEBIAN -fwrapv -fno-strict-aliasing -pipe -I/usr/local/include -D\_LARGEFILE\_SOURCE -D\_FILE\_OFFSET\_BITS=64 -I/usr/lib/x86\_64-linux-gnu/perl/5.26/CORE -Wdate-time -D\_FORTIFY\_SOURCE=2 -I/usr/include LIBNETSNMP\_LIBS = -Wl,-Bsymbolic-functions -specs=/usr/share/dpkg/no-pie-link.specs -Wl,-z,relro -Wl,-z,now -L/usr/lib/x86\_64-linux-gnu -lnetsnmp -lcrypto -lm Of importance are: -specs=/usr/share/dpkg/no-pie-compile.specs -specs=/usr/share/dpkg/no-pie-link.specs Now when compiling the non-snmp objects incorrectly get the "-specs=/usr/share/dpkg/no-pie-compile.specs" due to the assumption that it is safe to add up all CFLAGS to the global one. LDFLAGS imported that way are only added to snmp. snmp\_ups\_LDADD = \$(LDADD\_DRIVERS) \$(LIBNETSNMP\_LIBS) [...] snmp-ups\$(EXEEXT): \$(snmp\_ups\_OBJECTS) \$(snmp\_ups\_DEPENDENCIES) \$(EXTRA\_snmp\_ups\_DEPENDENCIES) @rm -f snmp-ups\$(EXEEXT) \$(AM\_V\_CCLD)\$(LINK) \$(snmp\_ups\_OBJECTS) \$(snmp\_ups\_LDADD) \$(LIBS) That leads to other (all non snmp\_ups) objects in drivers failing to build. They get the no-pie-compile.specs (incorrect) spec but not the no-pie-link.specs on the link step. Some other parts like mge\_shut and nutdrv\_qx already have custom CFLAGS/LDFLAGS that are not added to the global CFLAGS. So despite the comment in the makefile this doesn't seem to be new in general to nut. I don't want to mess too much with your build system for now as I don't know many of its implications. So I chose not the full drop of that global CFLAGS merge, but a minimal patch for now which fixes the issue described. Thereby closes #463

**2.1419 2017-08-23 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- docs/nut-names.txt, docs/nut.dict, drivers/eaton-ats16-mib.c: snmp-ups: add support for input.phase.shift (#433) \* snmp-ups: add support for input.phase.shift ATS can now publish the electrical dephasing between input sources \* Make spellchecker happy about "dephasing"

**2.1420 2017-08-16 Arnaud Quette <[ArnaudQuette@Eaton.com](mailto:ArnaudQuette@Eaton.com)>**

- drivers/snmp-ups.c: snmp-ups: fix the rounding / truncation of some values The multiplier system of the snmp-ups driver resulted in some values being rounded to the nearby integer value, thus causing a loss of the decimals and the value precision in general. This was mainly visible on the value of currents, but also on some voltages

**2.1421 2017-08-10 Arnaud Quette <[ArnaudQuette@Eaton.com](mailto:ArnaudQuette@Eaton.com)>**

- drivers/apc-ats-mib.c, drivers/apc-ats-mib.h: Remove exec bits on SNMP subdrivers

**2.1422 2017-08-07 Toby <[tobby88@users.noreply.github.com](mailto:tobby88@users.noreply.github.com)>**

- drivers/apcupsd-ups.c: apcupsd-ups: interpret "SHUTTING DOWN" as "LB" Fix issue <https://github.com/networkupstools/nut/issues/460> so NUT with apcupsd-ups driver will correctly initiate a shut down on low battery. Bump version to 0.5 Closes: <https://github.com/networkupstools/nut/issues/460> Closes: <https://github.com/networkupstools/nut/issues/461>

**2.1423 2017-08-04 Arnaud Quette <[ArnaudQuette@Eaton.com](mailto:ArnaudQuette@Eaton.com)>**

- docs/nut-names.txt: NUT namespace: fix an extraneous character insertion A character was wrongly inserted during the previous commit, triggering a spellcheck error
- drivers/eaton-mib.c: snmp-ups: Publish outlet.n.name for Eaton ePDU
- docs/nut-names.txt: Extend namespace for iPDU and outlets Extend NUT namespace to also publish the name of an outlet, using "outlet.n.name", beside from the existing "outlet.n.desc"

**2.1424 2017-08-03 Arnaud Quette <ArnaudQuette@Eaton.com>**

- drivers/eaton-mib.c: snmp-ups: Fix the phase of outlet groups for Eaton PDU Compute the phase to which an outlet group is connected WRT the total number of phase(s) and the considered outlet group number.
- drivers/snmp-ups.c, drivers/snmp-ups.h: snmp-ups: Introduce values lookup functions As already used in other drivers, such as usbhid-ups, introduce optional values lookup functions, beside from values lookup mapping. This allows to have a more powerful and generic values processing before publication

**2.1425 2017-08-02 Charles Lepple <clepple+nut@gmail.com>**

- drivers/cps-hid.c: CPS HID: add input.frequency and output.frequency (0.5) Suggested by Andy Jan: <http://lists.aliases.debian.org/pipermail/nut-upsuser/2017-August/010856.html>

**2.1426 2017-07-22 Charles Lepple <clepple+nut@gmail.com>**

- drivers/openups-hid.c: usbhid-ups: only check iOEMInformation once for openups2 This prevents the *libusb\_get\_string: invalid argument* message from being logged continuously. Patch provided by Alphonse <alphsteiner@gmail.com> <http://lists.aliases.debian.org/pipermail/nut-upsdev/2017-July/007314.html>

**2.1427 2017-06-26 Jim Klimov <jim@jimklimov.com>**

- docs/man/Makefile.am: docs/man/Makefile.am : Suffice to have prebuilt docs in dist-ed sources only if DOC\_INSTALL\_DISTED\_MAN is enabled
- docs/man/Makefile.am: docs/man/Makefile.am : Fix up dist-ed manpage source timestamps regardless of DOC\_INSTALL\_DISTED\_MAN value
- docs/man/Makefile.am: docs/man/Makefile.am : Fix up manpage source timestamps when dist-ing
- docs/Makefile.am: docs/Makefile.am : make sure the builddir copy of docbook-xsl.css is writeable (file is copied from OS, some distros have it 444 and not 644)
- docs/man/Makefile.am: docs/man/Makefile.am : do not rebuild docs and do not error out if a prebuilt copy is among sources (not only in builddir as before)
- configure.ac docs/man/Makefile.am : track DOC\_INSTALL\_DISTED\_MANS fallback behavior
- m4/nut\_check\_asciidoc.m4 configure.ac : parametrize the required minimum versions (asciidoc/a2x, dlatex)
- configure.ac: configure.ac : refer to detailed doc from --with-doc help text; preset explicit nut\_with\_doc=man=auto value
- docs/man/Makefile.am: docs/man/Makefile.am : small typo in comment
- configure.ac: configure.ac : move comment to a more relevant line

**2.1428 2017-06-25 Charles Lepple <clepple+nut@gmail.com>**

- tools/gitlog2changelog.py: gitlog2changelog: log parse errors for Author and Date Suggested by Jim Klimov.
- tools/gitlog2changelog.py: gitlog2changelog: Date header only occurs at start of line Alternative to <https://github.com/networkupstools/nut/pull/427>

**2.1429 2017-06-13 Arnaud Quette <ArnaudQuette@Eaton.com>**

- drivers/main.c: all drivers: update inline help for -d <count>
-



**2.1430 2017-06-12 Emilien Kia (Eaton) <EmilienKia@Eaton.com>**

- docs/man/nutupsdrv.txt, drivers/main.c: Add option to run driver on standalone mode. (#423) When a driver is launched with `-s <id>` instead of `-a <id>`, the driver does not read ups.conf and only looks for parameters on command line arguments (`-x <var>=<val>`). At least, *port* parameter shall be specified.

**2.1431 2017-06-12 EVER-PowerSystems <it.support@ever.eu>**

- drivers/ever-hid.c: fixed status names, added comments, fixed duplicates
- drivers/ever-hid.c: fixed NUT names

**2.1432 2017-06-12 Arnaud Quette <ArnaudQuette@Eaton.com>**

- drivers/powerware-mib.c: snmp-ups: add input.bypass.frequency for Eaton 3ph
- docs/man/nutupsdrv.txt, drivers/main.c: all drivers: change dump\_data from flag to variable The new option `-d dump_data` can now accept the number of update loops requested as its value

**2.1433 2017-06-09 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/main.c: all drivers: add `-d` data dump option Add `-d` option to the driver-core, which causes the driver to dump the data tree in upsc-like format to stdout, and exit

**2.1434 2017-06-09 Arnaud Quette <ArnaudQuette@Eaton.com>**

- docs/man/nutupsdrv.txt, drivers/dstate.c, drivers/dstate.h, drivers/main.c: all drivers: add `-d` data dump option Add `-d` option to the driver-core, which causes the driver to dump the data tree in upsc-like format to stdout, and exit

**2.1435 2017-06-03 Charles Lepple <clepple+nut@gmail.com>**

- drivers/belkin-hid.c: usbhid-ups: add Liebert GXT4 USB VID:PID [10AF:0000] Source: <http://lists.aliases.debian.org/pipermail/nut-upsuser/2017-June/010682.html> Voltage and ConfigVoltage appear to be scaled improperly per the debug output.

**2.1436 2017-05-24 Arnaud Quette <arnaud.quette@free.fr>**

- docs/nut-names.txt, drivers/eaton-mib.c, drivers/snmp-ups.c: snmp-ups: add support for outlet.group phase (#422) \* snmp-ups: fix oid2info value lookup When oid2info returns NULL, don't publish the variable. Previously, this was returning "UNKNOWN" which was not suitable \* snmp-ups: add support for outlet.group phase Outlets groups can now publish the electrical phase to which the physical outlets group (Gang) is connected to. This is useful for 3ph ePDU

**2.1437 2017-05-21 Charles Lepple <clepple+nut@gmail.com>**

- data/driver.list.in: HCL: CPS EC750G Source: <http://lists.aliases.debian.org/pipermail/nut-upsuser/2016-December/010461.html>
  - data/driver.list.in: HCL: CPS PR2200LCDRT2U (SNMP)
-



**2.1438 2017-05-20 Charles Lepple <clepple+nut@gmail.com>**

- data/driver.list.in: HCL: Add APC Back-UPS CS; edit other APC USB entries Closes: <https://github.com/networkupstools/nut/issues/365>
- data/driver.list.in: HCL: CyberPower EC350G supported by usbhid-ups (v2.7.3) Per @aurimasv on GitHub: > Test results: Tested on FreeNAS 9.10.1. Unplugged the UPS and the system > shutdown after 30 seconds. Closes: <https://github.com/networkupstools/nut/issues/347> Also sorted CPS entries.
- data/driver.list.in: HCL: Powercool 350VA to 1600VA USB (v2.7.2\+) Closes: <https://github.com/networkupstools/nut/issues/203>
- data/driver.list.in: HCL: Numeric Digital 800 plus works with nutdrv\_qx Closes: <https://github.com/networkupstools/nut/issues/115> (\~ 2.7.4)

**2.1439 2017-05-08 EVER-PowerSystems <it.support@ever.eu>**

- drivers/Makefile.am: fixed errors in makefile
- drivers/Makefile.am, drivers/ever-hid.c, drivers/ever-hid.h, drivers/usbhid-ups.c, scripts/upower/95-upower-hid.rules: add EVER hid ups

**2.1440 2017-04-21 Jim Klimov <jim@jimklimov.com>**

- docs/Makefile.am: docs: build cables html documentation Don't skip cables from html documentation.
- docs/Makefile.am: docs/Makefile.am : make the working directory contents writable before running a2x, so it can manage files copied as read-only in earlier steps

**2.1441 2017-04-10 Jim Klimov <jimklimov@gmail.com>**

- docs/man/Makefile.am: Update Makefile.am Some systems detect text sources as "ISO-8859 English" text - please them.

**2.1442 2017-04-10 Jim Klimov <jim@jimklimov.com>**

- docs/Makefile.am, docs/man/Makefile.am: Some systems detect html-pages as "XML" - please them too
- docs/man/Makefile.am: Some systems detect man-pages as "ASCII text"
  - please them

**2.1443 2017-04-09 Jim Klimov <jim@jimklimov.com>**

- docs/Makefile.am: docs/Makefile.am : typo fix not-building FAQ.chunked
  - docs/man/Makefile.am: docs/man/Makefile.am : fix check-man-html for distcheck
  - docs/man/Makefile.am: docs/man/Makefile.am : fix check-man-pages for distcheck
  - docs/man/Makefile.am: docs/man/Makefile.am : fix check-man-txt for distcheck
  - configure.ac, docs/Makefile.am, docs/man/Makefile.am: Add "make check" for generated (or "released" pre-built) docs
  - docs/Makefile.am: docs/Makefile.am : typo fix not-building FAQ.chunked
  - configure.ac: configure.ac : add --with-doc(s)=all={yes,no,skip,auto} to manch e.g. man=skip etc. syntax
-

**2.1444 2017-04-08 Sam Varshavchik <mrsam@courier-mta.com>**

- docs/man/Makefile.am: Fix creation of documentation from libnutclient\_misc.txt A simple .txt.3 rule doesn't understand that libnutclient\_misc.txt creates a bunch of .3. A parallel build, say *make -j 10* results in make trying to figure out how to build nutclient\_authenticate.3 before building libnutclient\_misc.3, and without a corresponding .txt in sight it gives up. Rebased onto master by Charles Lepple clepple\+nut@gmail.com Closes: <https://github.com/networkupstools/nut/pull/418>

**2.1445 2017-04-05 Arnaud Quette <ArnaudQuette@Eaton.com>**

- data/driver.list.in: Add support for Eaton 9PX Split Phase 6/8/10 kVA Using netxml-ups, usbhid-ups and mge-shut
- drivers/netxml-ups.c: netxml-ups: bump driver version In order to reflect update for 2phases, bump driver version
- drivers/dstate.c: dstate\_detect\_phasecount: update for 2phases Update the code to be able to handle 2phases devices, also known as "split phases"

**2.1446 2017-04-04 Arnaud Quette <arnaud.quette@free.fr>**

- clients/upsclient.c, drivers/gamatronic.c, drivers/openups-hid.c, drivers/snmp-ups.c, server/netssl.c, tools/nut-scanner/nutscan-ip.c, tools/nut-scanner/nutscan-serial.c, tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_serial.c, tools/nut-scanner/scan\_xml\_http.c: Cppcheck improvements (#405) Fix all Cppcheck errors, using standard c89: \* Uninitialized variables, \* Memory leak, \* Brackets balancing, \* Common realloc mistake, \* Possible null pointer dereference, \* Array index out of bounds, \* Not null-terminated string

**2.1447 2017-04-04 Arnaud Quette <ArnaudQuette@Eaton.com>**

- clients/status.h: upsstats (CGI): add support for alarms Whenever a device publishes the ALARM flag in ups.status, the CGI will publish it part of the Status
- clients/upsmon.c, clients/upsmon.h, conf/upsmon.conf.sample.in, docs/man/upsmon.conf.txt, docs/man/upsmon.txt: upsmon: add support for alarms Add general support for alarms to upsmon, which relates to the ups.status variable of a device holding the flag "ALARM". upsmon now has a "notify type" alarm, which allows to react on such events, as with other events
- MAINTAINERS, data/driver.list.in, docs/man/nutupsdrv.txt, drivers/Makefile.am, drivers/mge-shut.c, drivers/mge-shut.h: oldmge-shut: final deprecation and removal oldmge-shut is not anymore part of the distribution, and is replaced by mge-shut

**2.1448 2017-03-31 Nash Kaminski <nashkaminski@comcast.net>**

- docs/man/liebert-esp2.txt, docs/nut.dict, drivers/liebert-esp2.c: liebert-esp2 changes: Correct battery V scaling, update docs, implement split-phase unit support (#412) \* Update liebert-esp2 documentation, include note that port on GXT2 series does not fully follow RS-232 specs. \* Refactor output format of liebert-esp2 driver to follow that of other drivers to fix the nut-cgi interface as well as for overall consistency. Implement support for 2 phase i.e. split phase input Liebert GXT2 series units. Correct battery voltage scaling for GXT2 series units as well. \* Update nut.dict
- Update nut.dict

**2.1449 2017-03-30 Jim Klimov <jim@jimklimov.com>**

- .travis.yml: Problem: NUT tests in Travis CI often wait for default-withdoc Solution in .travis.yml : since Travis cloud starts the jobs as soon as it has resources, move the bulk of quicker matrix jobs to start after the longest withdocs build. Experimental note: we still need one job defined in the simple matrix for default environment, but can keep others in a single explicitly ordered list. Now the "Running for" time got cut from 8-9 to 5.5-6 minutes.

**2.1450 2017-03-29 Jim Klimov <jim@jimklimov.com>**

- docs/Makefile.am: docs/Makefile.am : update comment about spellcheck-sortdict post-processing, to make it more relevant
- docs/man/upsd.conf.txt, docs/nut.dict: Fix some more typos and add nut.dict exceptions

**2.1451 2017-03-29 Arnaud Quette <ArnaudQuette@Eaton.com>**

- docs/man/upsd.conf.txt: upsd.conf.txt: fix a typo from the previous commit
- conf/upsd.conf.sample, docs/man/upsd.conf.txt: upsd.conf: clarification on the LISTEN directive

**2.1452 2017-03-22 Arnaud Quette <ArnaudQuette@Eaton.com>**

- drivers/libusb1.c, drivers/nut\_libusb.h, tools/nut-scanner/scan\_usb.c: Fix spacers
- drivers/libusb1.c, drivers/nut\_libusb.h, tools/nut-scanner/scan\_usb.c: Fix spacers
- clients/upssched-cmd, conf/upssched.conf.sample.in: upssched: align documentation and sample files Align documentation and sample configuration and script, so that the whole is more coherent

**2.1453 2017-03-21 Arnaud Quette <ArnaudQuette@Eaton.com>**

- docs/scheduling.txt: upssched: some clarification on TIMER

**2.1454 2017-03-20 Charles Lepple <clepple+git@gmail.com>**

- docs/nut.dict: Re-sort nut.dict (#406) \* Re-sort nut.dict \* nut.dict header line

**2.1455 2017-03-15 Jim Klimov <jim@jimklimov.com>**

- docs/config-notes.txt: config-notes.txt : small clarifications in the text
  - docs/developers.txt: developers.txt : small clarifications in the text and line-wrapping and backticks
  - docs/config-notes.txt: config-notes.txt : small clarifications in the text and line-wrapping
  - docs/cables.txt: cables.txt : line-wrapping
  - docs/asciidoc.txt: asciidoc.txt : line-wrapping
  - docs/acknowledgements.txt: acknowledgements.txt : line-wrapping
  - docs/support.txt: support.txt : small clarifications in the text and line-wrapping
  - docs/security.txt: security.txt : small clarifications in the text and line-wrapping
  - docs/outlets.txt: outlets.txt : line-wrapping
  - docs/new-drivers.txt: new-drivers.txt : line-wrapping
  - docs/net-protocol.txt: net-protocol.txt : line-wrapping
  - docs/maintainer-guide.txt: maintainer-guide.txt : small clarifications in the text and line-wrapping and backticks
  - docs/macros.txt: macros.txt : line-wrapping
  - docs/history.txt: history.txt : line-wrapping
-

- docs/features.txt: features.txt : small clarifications in the text and line-wrapping and backticks
- docs/download.txt: download.txt : line-wrapping
- docs/developers.txt: developers.txt : small clarifications in the text and line-wrapping and backticks
- docs/daisychain.txt: daisychain.txt : small clarifications in the text and line-wrapping
- docs/configure.txt: configure.txt : small clarifications in the text
- docs/config-notes.txt: config-notes.txt : small clarifications in the text
- docs/acknowledgements.txt: acknowledgements.txt : small clarifications in the text
- docs/FAQ.txt, docs/nutdrv\_qx-subdrivers.txt: nutdrv\_qx-subdrivers.txt : small clarifications in the text
- docs/nut.dict: nut.dict : know of "nowait"

#### 2.1456 2017-03-14 Spiros Ioannou <[sivann@inaccess.com](mailto:sivann@inaccess.com)>

- .travis.yml: added libmodbus-dev to travis configuration

#### 2.1457 2017-03-13 Spiros Ioannou <[sivann@inaccess.com](mailto:sivann@inaccess.com)>

- configure.ac, data/driver.list.in, docs/man/Makefile.am, docs/man/index.txt, docs/man/phoenixcontact\_modbus.txt, docs/nut.dict, drivers/Makefile.am, drivers/phoenixcontact\_modbus.c, m4/nut\_check\_libmodbus.m4: phoenixcontact\_modbus driver Closes: <https://github.com/networkupstools/nut/pull/404>

#### 2.1458 2017-03-13 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>

- docs/nut.dict: nut.dict : add "distros" slangey
- docs/configure.txt, docs/contact-closure.txt, docs/daisychain.txt, docs/developers.txt, docs/features.txt, docs/history.txt, docs/net-protocol.txt, docs/new-drivers.txt, docs/nut-names.txt, docs/nut-qa.txt, docs/nutdrv\_qx-subdrivers.txt, docs/outlets.txt, docs/sock-protocol.txt: docs/\*.txt : cleanup long-dash (use double-minus)
- docs/acknowledgements.txt, docs/cables.txt, docs/configure.txt, docs/contact-closure.txt, docs/design.txt, docs/developer-guide.txt, docs/developers.txt, docs/documentation.txt, docs/download.txt, docs/features.txt, docs/hid-subdrivers.txt, docs/history.txt, docs/macros.txt, docs/maintainer-guide.txt, docs/net-protocol.txt, docs/new-clients.txt, docs/new-drivers.txt, docs/nut-names.txt, docs/nut-qa.txt, docs/outlets.txt, docs/packager-guide.txt, docs/snmp-subdrivers.txt, docs/snmp.txt, docs/sock-protocol.txt, docs/support.txt, docs/user-manual.txt: docs/\*.txt : cleanup trailing whitespace
- docs/FAQ.txt, docs/config-notes.txt, docs/scheduling.txt, docs/security.txt: Some docs/ files revised to backtick pathnames, clean up trailing whitespace, and use double-minuses for long-dash in sentences
- docs/nut.dict: docs/nut.dict : add "FHS"

#### 2.1459 2017-03-13 Arnaud Quette <[ArnaudQuette@Eaton.com](mailto:ArnaudQuette@Eaton.com)>

- scripts/systemd/nutshutdown.in: Prefer @CONFPATH@ over @sysconfdir@ Otherwise, the generated nutshutdown script can end up with a non specifying --sysconfdir and using default flags
  - scripts/systemd/nutshutdown.in: Prefer @CONFPATH@ over @sysconfdir@ Otherwise, the generated nutshutdown script can end up with a non specifying --sysconfdir and using default flags
  - docs/scheduling.txt: Disambiguate FHS - Filesystem Hierarchy Standard
  - docs/security.txt: Missing space
-

**2.1460 2017-03-04 Jim Klimov <jim@jimklimov.com>**

- drivers/snmp-ups.c: snmp-ups.c : presumed typo fix : NUT var for bypass mapping is "input.bypass" (fix the caller too)
- docs/hid-subdrivers.txt, docs/nut.dict: spellcheck: "futher" is a mistaken exception in custom dictionary
- docs/nut.dict: nut.dict bumped to support nut-website documents with words that Travis does not know
- drivers/snmp-ups.c: snmp-ups.c : presumed typo fix : NUT var for bypass mapping is "input.bypass" (fix the caller too)
- docs/nut.dict: nut.dict bumped to support nut-website documents with words that Travis does not know
- docs/nut.dict: nut.dict bumped to support nut-website documents

**2.1461 2017-03-04 Arnaud Quette <ArnaudQuette@Eaton.com>**

- docs/FAQ.txt, docs/config-notes.txt, docs/scheduling.txt, docs/security.txt: Try to adapt paths in documentation Documentation still widely uses the default paths source when compiled from source. While it is feasible to adapt some at compilation time, it is not desirable since, for example, the online documentation on networkupstools.org has to be generic. So try to make these paths more generic when possible, and otherwise make a note

**2.1462 2017-03-02 Arnaud Quette <ArnaudQuette@Eaton.com>**

- tools/nut-ddl-dump.sh: nut-ddl-dump.sh: various improvements Improve the script to generate NUT device dumps by adding:
  - \* a header line that mentions the generation source (automatic) and date
  - \* add upsrw dump as comments
  - \* add upscmd dump as comments
- drivers/eaton-ats16-mib.c: snmp-ups: ATS16 fixes for ambient sensor values Values for the attached ambient sensor to an ATS16 were erroneously multiplied by 10

**2.1463 2017-03-01 Jim Klimov <jimklimov@gmail.com>**

- drivers/mge-xml.c: Update mge-xml.c Include drivers/main.h to get testvar() declared properly

**2.1464 2017-03-01 Jim Klimov <jim@jimklimov.com>**

- docs/man/upscli\_init.txt: docs/man/upscli\_init.txt : rephrase the text to pass spellcheck (and human readability) and wrap some long lines
- drivers/snmp-ups.c: snmp-ups.c : presumed typo fix : NUT var for bypass mapping is "input.bypass"
- drivers/snmp-ups.c: snmp-ups.c : added comments about some daisychain global vars

**2.1465 2017-02-28 Jim Klimov <jim@jimklimov.com>**

- drivers/snmp-ups.c: drivers/snmp-ups.c : in snmp\_ups\_walk(), report in log if aborting because of exit\_flag
  - drivers/snmp-ups.c: drivers/snmp-ups.c : in snmp\_ups\_walk(), update some comments
  - drivers/snmp-ups.c: drivers/snmp-ups.c : presumed typo fix in comment about daisy (should be "1..N" not "2..N" in final code)
  - drivers/snmp-ups.c: drivers/snmp-ups.c : comment in snmp\_ups\_walk() about daisychains vs unitary devices
  - drivers/snmp-ups.c: drivers/snmp-ups.c : comment in snmp\_ups\_walk() about daisychains vs unitary devices
  - drivers/snmp-ups.c: drivers/snmp-ups.c : fix trailing whitespace
-

- drivers/dstate.c, drivers/dstate.h, drivers/usbhid-ups.h: drivers/dstate.c : in dstate\_detect\_phasecount() do not hardcode a buf[] size but use a macro
- drivers/dstate.c: drivers/dstate.c : extend a comment about 2-phase devices into dstate\_detect\_phasecount()
- docs/man/netxml-ups.txt, drivers/mge-xml.c, drivers/netxml-ups.c: mge-xml / netxml-ups : reimplement do\_convert\_deci as a simple VAR\_FLAG setting
- data/Makefile.am: data/Makefile.am : did not link back to "spellcheck-sortdict"

#### 2.1466 2017-02-27 Jim Klimov <jim@jimklimov.com>

- drivers/mge-xml.c: mge-xml.c : add debug logging of values which were converted
- docs/man/netxml-ups.txt, docs/nut.dict, drivers/mge-xml.c, drivers/netxml-ups.c: netxml-ups and mge-xml : allow users to reenale legacy convert\_deci() behavior at run-time, with a configuration toggle (documented)
- drivers/mge-xml.c: mge-xml.c : updated comment about convert\_deci() pre-history
- drivers/netxml-ups.c: netxml-ups.c : typo fix (shutdwon ⇒ shutdown)
- docs/man/netxml-ups.txt: docs/man/netxml-ups.txt : trailing whitespace fixes

#### 2.1467 2017-02-21 Jim Klimov <jim@jimklimov.com>

- drivers/mge-xml.c: drivers/mge-xml.c : when reporting deprecation of convert\_deci(), do it once visibly with details like issue tracker URL, and in regular debug messages refer to that line

#### 2.1468 2017-02-20 Jim Klimov <jim@jimklimov.com>

- drivers/mge-xml.c: drivers/mge-xml.c : in convert\_deci() now report it is deprecated (with debug level 5) so we get reports if deprecation bites anyone in reality
- drivers/mge-xml.c: drivers/mge-xml.c : bump subdriver version
- drivers/mge-xml.c: drivers/mge-xml.c : bump copyrights

#### 2.1469 2017-02-18 Jim Klimov <jimklimov@gmail.com>

- drivers/mge-xml.c: Disable convert\_deci() that was needed a decade ago Left the old code in place, commented away. If devices with old NetXML pop up (those which served in XML 10x the measured value), fixes can be applied based on voltage and amps and power (order of magnitude comparison), or perhaps model names and/or firmware versions or release dates, if we get those.

#### 2.1470 2017-02-12 Jim Klimov <jim@jimklimov.com>

- drivers/dstate.c: dstate.c : catch a few more zero value representation and comment about others
-

**2.1471 2017-02-10 Jim Klimov <jim@jimklimov.com>**

- drivers/dstate.c: dstate.c : refactor dstate\_detect\_phasecount() : change the report about calculated values to use common format with *func*
- drivers/dstate.c: dstate.c : refactor dstate\_detect\_phasecount() : change the no-longer-sexy overgrown one-liners with a readable macro
- drivers/dstate.c: dstate.c : important typo fixed for dstate\_detect\_phasecount()
- drivers/dstate.c: dstate.c : revise comment for dstate\_detect\_phasecount()
- drivers/dstate.c: dstate.c : address code style (move var declarations to top of scope)
- drivers/dstate.c: dstate.c : address some nit-picks

**2.1472 2017-02-09 Jim Klimov <jim@jimklimov.com>**

- drivers/dstate.c, drivers/dstate.h, drivers/mge-xml.c: Refactor dstate\_detect\_phasecount(), adding a read-only mode (so the caller can query the guesswork logic without changing active dstates)
- drivers/dstate.c, drivers/dstate.h, drivers/mge-xml.c: Refactor the dstate guesswork and setting for 1/3 phases, move it to common dstate.c/h and rename to dstate\_detect\_phasecount()
- drivers/mge-xml.c: Refactor recent logic into a common set\_phasecount()
- drivers/mge-xml.c: Drop an empty line
- drivers/mge-xml.c: mge-xml.c : calculate (input|bypass|output).phases number (1 or 3) based on available non-zero measurements - typo fix for "INPUT.bypass."
- drivers/mge-xml.c: mge-xml.c : calculate (input|bypass|output).phases number (1 or 3) based on available non-zero measurements - consider absence of Lx values for 1-phase case
- drivers/mge-xml.c: mge-xml.c : calculate (input|bypass|output).phases number (1 or 3) based on available non-zero measurements - also consider current (amps)
- drivers/mge-xml.c: mge-xml.c : calculate (input|bypass|output).phases number (1 or 3) based on available non-zero measurements

**2.1473 2017-02-04 Steven Bell <stv.bell07@gmail.com>**

- docs/nut.dict: Removed line left over from merge conflict. Oops!

**2.1474 2017-02-02 Daniel Schaal <daniel@schaal.email>**

- drivers/main.c: Add foreground option to drivers
- docs/man/upsd.txt, scripts/systemd/nut-server.service.in, server/upsd.c: Add foreground option to upsd

**2.1475 2017-01-28 Laurent Bigonville <bigon@bigon.be>**

- scripts/systemd/nutshutdown.in: Add support for POWEROFF\_WAIT parameter Use "systemctl reboot --force --force" to reboot the machine has not been shutdown after the POWEROFF\_WAIT delay. Closes: [#382](#)
  - scripts/systemd/nutshutdown.in: Add support for POWEROFF\_WAIT parameter Use "systemctl reboot --force --force" to reboot the machine has not been shutdown after the POWEROFF\_WAIT delay. Closes: [#382](#)
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**2.1476 2017-01-28 Jim Klimov <jim@jimklimov.com>**

- docs/man/ups.conf.txt, docs/man/upsdrvctl.txt, drivers/upsdrvctl.c: From: Arnaud Quette <arnaud.quette@free.fr> Date: Sat, 7 Jun 2014 02:27:15 \+0200 Subject: [PATCH] Add *nowait* option for upsdrvctl in ups.conf The *nowait* flag allow to tell upsdrvctl to not wait at all for the driver(s) to execute the request command. The default behavior, when this variable is omitted, is to wait *maxstartdelay* seconds
- drivers/eaton-ats30-mib.c: drivers/eaton-ats30-mib.c : fix whitespace
- drivers/snmp-ups.c: drivers/snmp-ups.c : fix trailing whitespaces
- docs/nut.dict: nut.dict : know of "nowait"
- docs/Makefile.am: docs/Makefile.am : after spellcheck-interactive, advise how to review the dictionary changes and avoid regressions
- conf/upsd.conf.sample, conf/upsmon.conf.sample.in, conf/upssched.conf.sample.in, docs/nut.dict: Spellchecked the conf/ sample files
- Makefile.am, conf/Makefile.am: Spellcheck the conf/ directory
- conf/upsd.users.sample, conf/upsmon.conf.sample.in: upsmon.conf.sample.in : clarify nuances of master/slave systems, and special use-cases of SHUTDOWNCMD and powervalue==0
- conf/hosts.conf.sample, conf/nut.conf.sample, conf/ups.conf.sample, conf/upsd.conf.sample, conf/upsd.users.sample, conf/upsmon.conf.sample, conf/upssched.conf.sample.in, conf/upsset.conf.sample, conf/upsstats.html.sample: Sample configuration files : fix leading and trailing whitespace (mix of tab/space)
- conf/ups.conf.sample: ups.conf.sample : move maxretry example higher in the file so it is before driver-block examples
- drivers/apc-pdu-mib.c: Date: Fri Aug 19 02:43:44 2016 \+0200 apc-pdu-mib.c fixes : \* added trailing NULLs for proper structure size; \* fixed some items' flags; \* fixed whitespace; \* bumped MIBmap version
- data/driver.list.in, drivers/Makefile.am, drivers/apc-pdu-mib.c, drivers/apc-pdu-mib.h, drivers/snmp-ups.c: From: Arnaud Quette <arnaud.quette@free.fr> Date: Fri, 8 Apr 2016 14:40:00 \+0200 Subject: [PATCH] snmp-ups: support APC PDU Based on initial work and data from Opendgear, using SNMP subdriver creation script, add support for the more recent APC PDU. This was tested with a AP8958, but should cover other models
- docs/man/ups.conf.txt, docs/man/upsdrvctl.txt, drivers/upsdrvctl.c: From: Arnaud Quette <arnaud.quette@free.fr> Date: Sat, 7 Jun 2014 02:27:15 \+0200 Subject: [PATCH] Add *nowait* option for upsdrvctl in ups.conf The *nowait* flag allow to tell upsdrvctl to not wait at all for the driver(s) to execute the request command. The default behavior, when this variable is omitted, is to wait *maxstartdelay* seconds
- conf/ups.conf.sample: Document and pre-set the "maxretry" option in ups.conf.sample

**2.1477 2017-01-27 Steven Bell <stv.bell07@gmail.com>**

- docs/man/upscli\_connect.txt, docs/nut.dict: Fixed issues with documentation for automated spellcheck during CI check.
- docs/man/upscli\_add\_host\_cert.txt, docs/man/upscli\_connect.txt, docs/man/upscli\_init.txt: Updated and corrected documentation.

**2.1478 2017-01-27 Jim Klimov <jim@jimklimov.com>**

- drivers/eaton-ats16-mib.c, drivers/eaton-ats30-mib.c: Prefix structures in eaton-atsXY-mib.c files with an eaton\_atsXY rather than just atsXY
  - README: not asciidoc, and redistributed - do not link to volatile build status
  - docs/nut.dict: docs/nut.dict : sorted to facilitate further maintenance
-



- NEWS, docs/nut.dict: Spellcheck : Fixed typo in Tore O\*r\*petveit's name
- README: README : embed a Travis status image link for NUT Master branch
- Makefile.am, docs/.gitignore, docs/Makefile.am, docs/man/Makefile.am: Spellcheck : add a recipe to keep nut.dict sorted so git diffs are clearer
- Makefile.am: Makefile.am : when calling spellcheck or spellcheck-interactive for several subdirs, do not stop after the first failed sub-make

#### 2.1479 2017-01-27 Arnaud Quette <ArnaudQuette@Eaton.com>

- drivers/snmp-ups.c: snmp-ups: Fix counter OID matching In case of multiple similar sysOID (i.e. same sysOID in different subdrivers), there is a counter matching OID (generally using the model OID). However, the matching was causing a crash of snmp-ups in case where it was not the right MIB mapping and the OID for model entry was not available
- Makefile.am, data/Makefile.am, data/cmdvartab: Integrate cmdvartab to the spellcheck target This also includes 2 spelling fixes
- drivers/Makefile.am, drivers/eaton-ats16-mib.c, drivers/eaton-ats16-mib.h, drivers/snmp-ups.c: snmp-ups: rename Eaton ATS16 resources Rename the subdriver files along with the structure and entries, to make a clear difference with the newly added eaton\_ats30. This completes the previous commit, where some files was erroneously committed
- drivers/{eaton-ats-mib.c ⇒ eaton-ats16-mib.c}, drivers/{eaton-ats-mib.h ⇒ eaton-ats16-mib.h}, drivers/eaton-ats30-mib.c: Fix unterminated comment, from previous commit
- tools/nut-scanner/scan\_snmp.c: nut-scanner: force numeric resolution of OIDs As done in snmp-ups, force the numeric resolution of OIDs, to ensure correct OID matching in all cases
- drivers/snmp-ups.c: Only free variable when needed in su\_setvar/su\_setOID Previously, we tried to free temporary pointers in all cases. However, this pointer may ever point at the static structure, in case we do not need to instantiate variable (outlet.\* collection), and which causes a crash of the driver
- drivers/eaton-ats30-mib.c: Add a comment on the unused OIDs
- drivers/snmp-ups.c: Fix spacing
- drivers/eaton-ats30-mib.c, drivers/eaton-ats30-mib.h: Fix legal information

#### 2.1480 2017-01-26 Tomas Halman <TomasHalman@eaton.com>

- drivers/Makefile.am, drivers/eaton-ats30-mib.c, drivers/eaton-ats30-mib.h, drivers/snmp-ups.c: snmp-ups: support Eaton Automatic Transfer Switch ATS30 ATS30 MIB differs from previously integrated EATON ATS driver.

#### 2.1481 2017-01-24 Jim Klimov <jim@jimklimov.com>

- common/common.c, configure.ac: Add support for system library directories with names based on target/build/host OS spec (for GCC at least)

#### 2.1482 2017-01-23 Jim Klimov <jim@jimklimov.com>

- drivers/mge-hid.c, drivers/nutdrv\_qx.h, drivers/nutdrv\_qx\_bestups.c: Fix the non-ASCII quote character away from C sources
- docs/daisychain.txt, docs/man/al175.txt, docs/man/apcsmart.txt, docs/man/apcupsd-ups.txt, docs/man/bcmxcp\_usb.txt, docs/man/bestups.txt, docs/man/blazer-common.txt, docs/man/clone.txt, docs/man/libnutclient\_commands.txt, docs/man/libnutclient\_misc.txt, docs/man/libnutclient\_tcp.txt, docs/man/libnutclient\_variables.txt, docs/man/macosex-ups.txt, docs/man/mge-shut.txt, docs/man/nut-scanner.txt, docs/man/nutdrv\_qx.txt, docs/man/nutscan\_add\_device\_to\_device.txt, docs/man/nutscan\_add\_opti.txt, docs/man/nutscan\_cidr\_to\_ip.txt, docs/man/nutscan\_get\_serial\_ports\_list.txt, docs/man/nutupsdrv.txt, docs/man/skel.txt, docs/man/snups.txt, docs/man/solis.txt, docs/man/ups.conf.txt, docs/man/upscode2.txt, docs/man/upsd.conf.txt, docs/man/upsd.txt, docs/man/upsmon.conf.txt, docs/man/upsmon.txt, docs/man/upsrw.txt, docs/man/upssched.conf.txt, docs/man/upsstats.html.txt, docs/man/usbhid-ups.txt, docs/nut.dict: Update nut.dict and manpage sources after initial spellchecking integration

- Makefile.am, ci\_build.sh, docs/man/Makefile.am: docs/man/Makefile.am : track all manpage sources in a separate variable and use that for spellchecker
- docs/Makefile.am: docs/Makefile.am : add daisychain to ALL\_TXT\_SRC
- docs/Makefile.am: docs/Makefile.am : revised TODOs for spellchecker

**2.1483 2017-01-21 Jim Klimov <jim@jimklimov.com>**

- indent.sh: Initial commit of indent.sh helper

**2.1484 2017-01-20 Jim Klimov <jimklimov@gmail.com>**

- .travis.yml: Enable valgrind in travis matrix

**2.1485 2017-01-20 Jim Klimov <jim@jimklimov.com>**

- Makefile.am, tests/Makefile.am: VALGRIND: abuse distcheck to run tested programs in debug mode under valgrind
- configure.ac: valgrind config fix
- ci\_build.sh: Travis : make spellcheck failures fatal now
- docs/nut.dict: docs/nut.dict : add another word missed by earlier private dict
- docs/nut.dict: docs/nut.dict : try to enable UTF8 contributor names
- docs/Makefile.am: docs/Makefile.am : try to enable UTF8 in args and env
- .travis.yml, ci\_build.sh: Travis : enable i2c tests
- .travis.yml: .travis.yml : rearrange apt deps and special case for doc/spell tests in the matrix
- .travis.yml, ci\_build.sh: Travis: port the test-script structure from DMF brach (better case than if)

**2.1486 2017-01-19 Jim Klimov <jimklimov@gmail.com>**

- docs/Makefile.am: docs/Makefile.am : parametrize aspell common args; add togglable debugging of aspell setup

**2.1487 2017-01-19 Jim Klimov <jim@jimklimov.com>**

- tools/nut-scanner/nutscan-init.c: nutscan-init.c : We can also use libusb-compat from newer libusb-1.0 releases ([issue #361](#))
  - docs/nut.dict: docs/nut.dict : add some words not in dictionaries available to Travis CI; add some developer names to the dictionary
  - NEWS, TODO, UPGRADING, common/parseconf.c, docs/FAQ.txt, docs/acknowledgements.txt, docs/cables/sms.txt, docs/config-notes.txt, docs/download.txt, docs/hid-subdrivers.txt, docs/new-drivers.txt, docs/nut-qa.txt, docs/nut.dict, docs/nutdrv\_qx-subdrivers.txt, docs/packager-guide.txt, docs/snmp-subdrivers.txt, lib/README, scripts/augeas/README: Spellchecker : Fix or rephrase issues found by spellchecker, and update the NUT custom dictionary
  - docs/developers.txt: docs/developers.txt : fix non-ASCII tick character
  - docs/acknowledgements.txt, docs/packager-guide.txt: Added myself to docs/acknowledgements.txt docs/packager-guide.txt
  - docs/nut-qa.txt: docs/nut-qa.txt : rearranged the paragraph with CI (to fit in 80 cols) and added link to Travis CI dashboard for NUT branches
-

- docs/packager-guide.txt: docs/packager-guide.txt : rearranged the paragraph with recommended package description (to fit in 80 cols)
- docs/developers.txt: docs/developers.txt : mention the recently added Travis CI integration
- docs/developers.txt: docs/developers.txt : reformat the paragraph on distcheck-light, and mention the recently added option to skip building docs
- Makefile.am: Makefile.am : allow to call from workspace root the docs/Makefile for targets: spellcheck spellcheck-interactive doc
- ci\_build.sh, docs/Makefile.am: docs/Makefile.am \+ Travis : support a SPELLCHECK\_ERROR\_FATAL toggle, and use it from Travis for now \* docs/Makefile.am : also report if the build succeeds despite spellcheck errors (due to this setting)
- docs/Makefile.am: docs/Makefile.am : name the en lang explicitly
- docs/Makefile.am: docs/Makefile.am : big reorganization of spellcheck \* spellcheck targets should fail the build not only if the last document failed the test \* make sure to use custom spellcheck dictionary from NUT source tree; revise erroring out if automatic aspell finds issues \* also set LC\_ALL=C for aspell \* revised spellcheck failure message to suggest next steps for the human \* comment the spellcheck test; use more portable shell test (instead of bracket); do not fail on empty aspell outputs
- .travis.yml, ci\_build.sh: Travis CI should call spellcheck as a separate spellchecking job (parallelize, optimize for speed, separate error causes/reports)
- .travis.yml: .travis.yml : add libcppunit to travis env, so tests in NUT will be enabled

#### 2.1488 2017-01-14 Jim Klimov <jim@jimklimov.com>

- drivers/nut-libfreeipmi.c: drivers/nut-libfreeipmi.c : set the 4 voltage\_range variable to unsigned ints

#### 2.1489 2017-01-11 Jim Klimov <jim@jimklimov.com>

- .travis.yml: .travis.yml : drop comment for [PR #354](#)

#### 2.1490 2017-01-10 Arnaud Quette <ArnaudQuette@Eaton.com>

- drivers/snmp-ups.c: snmp-ups: fix device.type setting in daisychain mode device.type was not set due to a coding error, but pushed to device.model (reported by Evgeny "Jim" Klimov from Eaton)
- drivers/main.c: drivers: set the default device.type even earlier device.type default setting to "ups" has to be done prior to the initups() call, otherwise some devices (such as daisychained PDUs) will not be able to override it

#### 2.1491 2017-01-06 Daniele Pezzini <hyouko@gmail.com>

- common/state.c: state: consider also ST\_FLAG\_NUMBER flags
  - drivers/dstate.c: dstate: report ST\_FLAG\_NUMBERS also in response to a DUMPALL request
  - drivers/dstate.c: dstate: when dealing with ranges, don't lose already-set flags Ranges are now explicitly flagged as numbers, but the use of dstate\_setflags() means that we substitute any previously-set flag with the ones we pass to that function, losing, for example, an already-set r/w status, with the result of making an affected var unchangeable. Use instead the newly added dstate\_addflags() function, which preserves already-set flags.
  - drivers/dstate.c, drivers/dstate.h: dstate: add a couple of functions to ease the manipulation of flags
-

**2.1492 2017-01-04 Jim Klimov <jim@jimklimov.com>**

- ci\_build.sh: ci\_build.sh : list contents of installation directory
- ci\_build.sh: ci\_build.sh : fix installation directories for /etc and udev, devd and hotplug (not hardcoded root paths)
- ci\_build.sh: ci\_build.sh : list contents of installation directory
- ci\_build.sh: ci\_build.sh : fix installation directories for /etc and udev, devd and hotplug (not hardcoded root paths)
- .travis.yml, ci\_build.sh: Travis : take advantage of "--with-doc=skip" support recently added in configure and Makefiles
- ci\_build.sh: ci\_build.sh : comment about missing i2c
- ci\_build.sh: ci\_build.sh : generalize the skipping of distcheck and make it more comprehensible in script code
- .travis.yml: .travis.yml : include the headers needed for i2c
- .travis.yml: .travis.yml : use specific libgd
- .travis.yml: .travis.yml : add graphics pkgs for CGI builds
- ci\_build.sh: .travis.yml / ci\_build.sh : speed up with parallel build (fall back to sequential if this fails)
- .travis.yml, ci\_build.sh: .travis.yml / ci\_build.sh : current NUT does not skip docs safely, so enable just manpages in default build
- .travis.yml: .travis.yml : add libipmimonitoring packages too
- .travis.yml: .travis.yml : older freeipmi in Travis Ubuntu 12.04.5
- ci\_build.sh: ci\_build.sh : fix the doc-skipping option
- .travis.yml: .travis.yml : apparently, libfreeipmi16 pkg requires extra invitation
- .travis.yml, ci\_build.sh: Travis : require docs tools only for "default-withdoc" builds; change "default" to skip the docs (and try to pass distcheck)
- .travis.yml: .travis.yml : only define default-alldrv once
- .travis.yml, ci\_build.sh: Initial integration of a travis matrix build (different scenarios)
- .gitignore, .travis.yml, ci\_build.sh, docs/Makefile.am: Initial commits of config and script files for Travis CI automatic validation (simply do a compile and distcheck)
- configure.ac: configure.ac : switch default option to "--with-doc=man=auto" so ordinary builds succeed by default on any system
- configure.ac: configure.ac alias
- configure.ac: configure.ac : add the "--with-docs" as alias to "--with-doc"
- configure.ac, m4/ax\_compare\_version.m4, m4/nut\_check\_asciidoc.m4: Refactor nut\_check\_asciidoc.m4 and configure.ac to check all doc-tools in one place (and also only once), and fix comments and some coding issues

**2.1493 2017-01-04 Arnaud Quette <ArnaudQuette@Eaton.com>**

- m4/nut\_check\_asciidoc.m4: Minor typo fixes

**2.1494 2016-12-29 Charles Lepple <clepple+nut@gmail.com>**

- docs/new-drivers.txt: docs: reword/reformat new-drivers.txt Distinguish HID PDC from Q\*, etc.

**2.1495 2016-12-17 Daniel Schaal <daniel@schaal.email>**

- clients/upsmon.c, docs/man/upsmon.txt, scripts/systemd/nut-monitor.service.in: Add option to run upsmon in foreground

**2.1496 2016-11-29 Florian Bruhin <git@the-compiler.org>**

- tools/gitlog2changelog.py: Fix gitlog2changelog.py on python 3
- scripts/augeas/gen-nutupsconf-aug.py: Make gen-nutupsconf-aug.py work with Python 3 This makes the script work with Python 2.6\+. Fixes [#345](#).

**2.1497 2016-11-28 Daniele Pezzini <hyouko@gmail.com>**

- configure.ac: configure: fix checks for a2x-built docs Since, starting from commit d4a55ed, we now check that documents are buildable in an *external* directory, we need to call a2x with *--destination-dir* pointing to that directory, otherwise a2x will put the generated documents in the same directory where source files are and then testing the non-existent files under our *external* directory will always fail, meaning that we will never pass these checks.

**2.1498 2016-11-21 Jim Klimov <jim@jimklimov.com>**

- common/snprintf.c: common/snprintf.c : avoid a few compilation warnings and a possible crash due to padded ints in variadic functions
- common/snprintf.c, configure.ac: common/snprintf.c and configure.ac : avoid a few compilation warnings
- docs/Makefile.am: EXTRA\_DIST the docs/asciidoc.txt as used in configure script checks
- configure.ac: configure.ac : avoid nonportable "mktemp --tmpdir" option

**2.1499 2016-11-17 Michal Soltys <soltys@ziu.info>**

- autogen.sh: minor script fixup In case any of the perl / python parts fails (for example if system default is python3, the script will complain about print), cd ../. won't be executed. Furthermore - if any of those scripts fail, there's no point in continuing as both files are mandatory.
- docs/man/apcsmart.txt, drivers/apcsmart.c, drivers/apcsmart.h: apcsmart: CS "hack" updates This patch adds cshdelay option (with default set to 3.5s) between "simulate power failure" and "soft hibernate" commands.

**2.1500 2016-11-16 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/mge-hid.c: sbhid-ups: fix Eaton/MGE mapping for beeper handling Two HID Paths exists for handling beeper status and commands. However, only one historic was implement, which was not actually suitable for issuing the commands on newer units (such as 3S, 5P\*, ...) (reported by Sergey Talchuk) Closes: <https://github.com/networkupstools/nut/issues/9>
- drivers/usbhid-ups.c: usbhid-ups: adjust debugging info

**2.1501 2016-11-09 Charles Lepple <clepple+nut@gmail.com>**

- docs/nut-names.txt, drivers/libusb0.c, drivers/libusb1.c: Add driver.version.usb variable Reference: <https://github.com/networkupstools/nut/issues/300>
  - docs/nut-names.txt, drivers/libusb0.c, drivers/libusb1.c: Add driver.version.usb variable Reference: <https://github.com/networkupstools/nut/issues/300>
  - docs/nut-names.txt, drivers/libusb0.c, drivers/libusb1.c: Add driver.version.usb variable Reference: <https://github.com/networkupstools/nut/issues/300>
-

**2.1502 2016-11-03 Charles Lepple <clepple+nut@gmail.com>**

- data/driver.list.in: HCL: CP1500EPFCLCD Source: <https://github.com/networkupstools/nut/issues/337>

**2.1503 2016-11-02 Charles Lepple <clepple+nut@gmail.com>**

- data/driver.list.in: HCL: Eaton 5E2200VA Reference: <https://github.com/networkupstools/nut/issues/335>
- data/driver.list.in: HCL: Eaton Ellipse PRO 650 VA (USB) supported by usbhid-ups Closes: <https://github.com/networkupstools/nut/issues/255>

**2.1504 2016-10-21 Charles Lepple <clepple+nut@gmail.com>**

- docs/download.txt: download.txt: Add Slackware link

**2.1505 2016-10-12 Kirill Ovchinnikov <ovchinnikov@ians.aero>**

- drivers/apc-mib.c, drivers/snmp-ups.c: apc-mib.c modified for ups.delay.{start,shutdown} to include SU\_TYPE\_TIME

**2.1506 2016-10-11 Yann E. MORIN <yann.morin.1998@free.fr>**

- clients/upsclient.c: client/ups: add missing include struct timeval is declared in sys/time.h, so we need to #include it.

**2.1507 2016-10-11 Arnaud Quette <arnaud.quette@free.fr>**

- tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c: Remove unimplement nut-scanner option The -F --fingerprints-file option, used to provide an additional list of SNMP fingerprints, was never implemented, but made its way into the code. Remove it, at least while waiting for an actual implementation
- docs/man/nut-scanner.txt: Update nut-scanner manual page
- tools/nut-scanner/nutscan-device.c, tools/nut-scanner/scan\_xml\_http.c: Fix c++ style comments

**2.1508 2016-10-05 Arnaud Quette <arnaud.quette@free.fr>**

- common/common.c: Fix c++ style comments
- drivers/snmp-ups.c: Fix exit code for --list

**2.1509 2016-09-28 Jim Klimov <jim@jimklimov.com>**

- tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_xml\_http.c: nut-scanner : implement single-IP and IP-range UDP NetXML device discovery
  - tools/nut-scanner/scan\_snmp.c: scan\_xml\_http.c : fix leading whitespaces (SPACE vs TABs mixed in code)
  - tools/nut-scanner/scan\_snmp.c: scan\_xml\_http.c : replace some fprintf with upsdebugx
  - tools/nut-scanner/nut-scanner.c: nut-scanner.c : increased debug-tracing messages of nut-scanner progress
  - tools/nut-scanner/nut-scanner.c: nut-scanner.c : replaced printq() with standard upsdebugx(), added "-D" option to increase debug verbosity as common in NUT, moved the help text printout to its own function
-

**2.1510 2016-09-27 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>**

- common/common.c, include/common.h: common.c/h : simplify the upsdebugx() enhancement (no need to fight with warnings/pragmas)

**2.1511 2016-09-26 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- scripts/systemd/nut-server.service.in: systemd: add reload support for nut-server / upsd Add ExecReload entry to execute a configuration reload of upsd, using the available *upsd -c reload*

**2.1512 2016-09-25 Charles Lepple <[clepple+nut@gmail.com](mailto:clepple+nut@gmail.com)>**

- drivers/libusb1.c: libusb1: use return code from libusb\_open() Per [http://libusb.sf.net/api-1.0/group\\_\\_dev.html#ga8163100afdf933fabe](http://libusb.sf.net/api-1.0/group__dev.html#ga8163100afdf933fabe) the handle is only populated when the return code is 0. This fixes a crash during device detection where more than one HID UPS is available, and the driver needs to skip the first one.
- drivers/libusb1.c: libusb1: use return code from libusb\_open() Per [http://libusb.sf.net/api-1.0/group\\_\\_dev.html#ga8163100afdf933fabe](http://libusb.sf.net/api-1.0/group__dev.html#ga8163100afdf933fabe) the handle is only populated when the return code is 0. This fixes a crash during device detection where more than one HID UPS is available, and the driver needs to skip the first one.
- drivers/libusb1.c: libusb1: use return code from libusb\_open() Per [http://libusb.sf.net/api-1.0/group\\_\\_dev.html#ga8163100afdf933fabe](http://libusb.sf.net/api-1.0/group__dev.html#ga8163100afdf933fabe) the handle is only populated when the return code is 0. This fixes a crash during device detection where more than one HID UPS is available, and the driver needs to skip the first one.

**2.1513 2016-09-21 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>**

- include/common.h: common.h : rearranged the ENABLE\_WARNING/DISABLE\_WARNING macro definitions so they are only called for supported compilers and generate empty macros (no-op) for others

**2.1514 2016-09-20 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>**

- common/common.c: common.c : move anti-warning macros out of the function body, some compilers do not like that

**2.1515 2016-09-19 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>**

- tools/nut-scanner/scan\_xml\_http.c: scan\_xml\_http.c : do not suggest NetXML support for ePDUs (almost exclusively they are XMLv4 and do not work with current NUT)

**2.1516 2016-09-18 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>**

- common/common.c: common.c : in upsdebugx() added "[Dx]" prefix : do not add it for level 0

**2.1517 2016-09-17 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>**

- configure.ac: configure.ac : do not fail configuration if a doctype picked with "auto" can not be built on this system - just skip it

**2.1518 2016-09-17 Jim Klimov <[EvgenyKlimov@eaton.com](mailto:EvgenyKlimov@eaton.com)>**

- common/common.c, include/common.h: common.c : augment upsdebugx() and upsdebug\_with\_errno() by prepending the debug-level to logged messages
  - common/common.c: common.c : fix whitespaces
-

**2.1519 2016-09-16 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/snmp-ups.h: snmp-ups: update todo list The addition of sysContact and sysLocation support is now addressed centrally
- drivers/snmp-ups.c: snmp-ups: add sysContact and sysLocation support The generic MIB-2 provides system contact and location information that are now publish respectively as device.contact and device.location

**2.1520 2016-09-15 Jim Klimov <jim@jimklimov.com>**

- drivers/snmp-ups.c: Added and documented an snmp-ups argument to list currently loaded MIB-to-NUT mappings (typo fix)
- docs/man/snmp-ups.txt, drivers/snmp-ups.c: Added and documented an snmp-ups argument to list currently loaded MIB-to-NUT mappings
- drivers/snmp-ups.c: snmp-ups.c : small typo fix
- docs/man/snmp-ups.txt, drivers/ietf-mib.c: Mention triplite mapping in snmp-ups manpage; updated some comments about it in ietf-mib.c
- configure.ac: configure.ac : when verifying ability to build docs, consider out-of-tree builds too

**2.1521 2016-09-14 Jim Klimov <jim@jimklimov.com>**

- common/common.c: common.c : revised upsdebugx() and upslogx() calls to not trail an extra newline
- common/common.c, configure.ac: Add support for system library directories with names based on short target/build/host OS spec too
- common/common.c: common.c : added logging and small optimizations during get\_libname()
- common/common.c: common.c : add /usr/local/lib64 to search path
- tools/nut-scanner/nutscan-init.c: nut-scanner : support libneon-gnutls.so as an alternative name
- configure.ac: configure.ac : verify that we can actually build a simple or chunked HTML document, beside having nominal versions of software
- configure.ac: configure.ac : verify that we can actually build a manpage document, beside having nominal versions of software
- configure.ac: configure.ac : verify that we can actually build a simple PDF document, beside having nominal versions of software

**2.1522 2016-09-13 Jim Klimov <jim@jimklimov.com>**

- configure.ac, docs/man/Makefile.am: configure.ac, docs/man/Makefile.am - support SKIP\_MANS as an explicit non-fatal situation
- drivers/ietf-mib.c: Give the Triplite SNMP MIB a name, do not duplicate "ietf" entries

**2.1523 2016-09-07 Jim Klimov <jim@jimklimov.com>**

- drivers/dstate.c: dstate.c : a pedantic compiler warning fix
  - configure.ac: configure.ac : add potential usage of valgrind, optional and configurable/detectable
-



**2.1524 2016-09-02 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/bcmxcp\_usb.c, drivers/blazer\_usb.c, drivers/libusb1.c, drivers/nutdrv\_atcl\_usb.c, drivers/nutdrv\_qx.c, drivers/richcomm\_usb.c, drivers/riello\_usb.c: libusb 1.0 port: fix return code for interrupt ops libusb 1.0 returns on success, the number of bytes actually transferred or otherwise an error code, except for interrupt transfers, where the actual transfer size is stored in a separate variable. The libusb 1.0 implementation in NUT thus needed to be fixed to behave the same way than the libusb 0.1 implementation Reference: <https://github.com/networkupstools/nut/issues/300>
- drivers/bcmxcp\_usb.c, drivers/blazer\_usb.c, drivers/libusb1.c, drivers/nutdrv\_atcl\_usb.c, drivers/nutdrv\_qx.c, drivers/richcomm\_usb.c, drivers/riello\_usb.c: libusb 1.0 port: fix return code for interrupt ops libusb 1.0 returns on success, the number of bytes actually transferred or otherwise an error code, except for interrupt transfers, where the actual transfer size is stored in a separate variable. The libusb 1.0 implementation in NUT thus needed to be fixed to behave the same way than the libusb 0.1 implementation Reference: <https://github.com/networkupstools/nut/issues/300>
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**2.1525 2016-08-31 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/libusb1.c: libusb 1.0 port: remove the check on USB device count With the port to libusb 1.0, a sanity check was done on the available number of USB devices to try. This however caused a behavior regression, since the only device that NUT may have access to can be the only UPS connected. In this case, the driver may exit upon trying to reconnect if the device is transiently not available Reference: <https://github.com/networkupstools/nut/issues/300>
- drivers/libusb1.c, drivers/richcomm\_usb.c: libusb 1.0 port: complete usb\_set\_altinterface code usb\_set\_altinterface allows to force the USB code to call `libusb_set_interface_alt_setting (0, {empty}0)` (equivalent to `libusb_set_altinterface` in libusb 0.1), as was done in NUT 2.7.2 and earlier. However, the libusb 1.0 implementation was still missing the related code Reference: <https://github.com/networkupstools/nut/issues/300>
- drivers/nutdrv\_atcl\_usb.c, drivers/richcomm\_usb.c: libusb 1.0 port: fix kernel driver detachment Following the recent modification for the kernel driver detachment, and the related functions availability depending on the platforms, `nutdrv_atcl_usb` and `richcomm_usb` were using the wrong macro for `libusb_set_auto_detach_kernel_driver` and were missing the libusb 1.0 code for explicit kernel driver detachment Reference: <https://github.com/networkupstools/nut/issues/300>
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#### 2.1526 2016-08-17 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>

- drivers/libusb1.c, m4/nut\_check\_libusb.m4: libusb 1.0 port: rework the kernel driver detachment libusb 1.0 has introduced a new function (`libusb_set_auto_detach_kernel_driver`), beside from the explicit kernel driver detachment request (`libusb_detach_kernel_driver`). However, the former is not available on all systems. As an example, FreeBSD 10.1-10.3 does not have this. The detachment and interface claiming has been reworked to handle this case (reported by Charles Lepple) Reference: <https://github.com/networkupstools/nut/issues/300>
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#### 2.1527 2016-08-16 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>

- clients/upsrw.c: upsrw: display the variable type beside ENUM / RANGE upsrw now displays more information, beside the ENUM and RANGE, such as the variable type (NUMBER or STRING), and the maximum length for STRING Closes: <https://github.com/networkupstools/nut/issues/267>
- include/extstate.h: Add an explicit type NONE (ST\_FLAG\_NONE) Reference: <https://github.com/networkupstools/nut/issues/267>
- server/netget.c: Modify server side publication for variable type ENUM can be either NUMBER or STRING, which was previously not published. Reference: <https://github.com/networkupstools/nut/issues/267>
- drivers/dstate.c: Automatically set the "NUMBER" flag for ranges Ranges, added through `dstate_addrange()`, only support numeric ranges. So automatically add the ST\_FLAG\_NUMBER flag to range Reference: <https://github.com/networkupstools/nut/issues/267>
- drivers/dstate.c: Support ST\_FLAG\_NUMBER in `dstate_setflags()` Allow the drivers to explicitly use ST\_FLAG\_NUMBER through `dstate_setflags()` Reference: <https://github.com/networkupstools/nut/issues/267>
- include/extstate.h: Add an explicit type NUMBER (ST\_FLAG\_NUMBER) Beside from the existing ST\_FLAG\_STRING, a need has arise to have an explicit type NUMBER, and thus a flag for this type, can be used generally, and more specifically with the driver primitive `dstate_setflags()` Reference: <https://github.com/networkupstools/nut/issues/267>

#### 2.1528 2016-08-12 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>

- drivers/libusb1.c: libusb 1.0: remove unused `typesafe_control_msg()` workaround For libusb 0.1 implementation, we had to workaround a libusb API goofs, by wrapping the base function `usb_control_msg()`, and casting the variables to the right type. This is not needed for libusb 1.0 implementation, but was wrongly left in the code (reported by Charles Lepple)

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- clients/upsrw.c: upsrw: display current values of NUMBER variables References: <https://github.com/networkupstools/nut/issues/267>
- drivers/snmp-ups.c: snmp-ups: discard decimals when set to "0" Publish values as integer when decimals are set to "0". This at least makes sense for some values that are real integers (phases and outlets counts for example), but also with many other values that have not sufficient precision to provide decimals

## 2.1529 2016-08-11 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>

- drivers/bcmxcp\_usb.c: bcmxcp\_usb: fix a warning on unused variable
- drivers/bcmxcp\_usb.c, drivers/libusb1.c, drivers/nutdrv\_atcl\_usb.c, drivers/richcomm\_usb.c: libusb 1.0 port: simplify bus publication bus publication was wrongly listing both the bus and the portname, instead of the bus only. This may have caused some issue when trying to match the port
- drivers/usbhid-ups.c: usbhid-ups/mge-shut: forgotten version bump
- drivers/usbhid-ups.c: usbhid-ups/mge-shut: rework errno/errors handling libusb 1.0 has its own set of return codes, and error interface. Rework the common HID core (shared between usbhid-ups and mge-shut) so that error handling can work with both, and using either libusb 0.1 or 1.0 for usbhid-ups
- tools/nut-scanner/scan\_usb.c: nut-scanner: missing symbols lookup for libusb 1.0 A few symbols from libusb 1.0 were wrongly used directly, instead of being looked up and loaded at init time
- drivers/bcmxcp\_usb.c, drivers/libusb1.c, drivers/nutdrv\_atcl\_usb.c, drivers/richcomm\_usb.c: libusb 1.0 port: add missing libusb\_exit() calls
- tools/nut-scanner/nutscan-init.c, tools/nut-scanner/scan\_usb.c, tools/nut-usbinfo.pl: nut-scanner: initial port to libusb 1.0 The port to libusb 1.0 is complete, at least from a build perspective. This now needs to be tested with devices
- drivers/nutdrv\_atcl\_usb.c, drivers/richcomm\_usb.c: Remove redundant variable
- drivers/tripplite\_usb.c: tripplite\_usb: remove extraneous comment char
- drivers/nut\_libusb.h: permute typedef order of usb\_dev\_handle
- drivers/nutdrv\_qx.c: nutdrv\_qx: initial port to libusb 1.0 The port to libusb 1.0 is complete, at least from a build perspective. This now needs to be tested with devices
- drivers/richcomm\_usb.c: richcomm\_usb: missing function remap for libusb 0.1 usb\_strerror was not remapped for libusb 0.1 implementation
- drivers/tripplite\_usb.c: tripplite\_usb: initial port to libusb 1.0 The port to libusb 1.0 is complete, at least from a build perspective. This now needs to be tested with devices
- drivers/riello\_usb.c: riello\_usb: initial port to libusb 1.0 The port to libusb 1.0 is complete, at least from a build perspective. This now needs to be tested with devices
- drivers/bcmxcp\_usb.c: bcmxcp\_usb: fix a warning on unused variable
- drivers/bcmxcp\_usb.c, drivers/libusb1.c, drivers/nutdrv\_atcl\_usb.c, drivers/richcomm\_usb.c: libusb 1.0 port: simplify bus publication bus publication was wrongly listing both the bus and the portname, instead of the bus only. This may have caused some issue when trying to match the port

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  - drivers/bcmxcp\_usb.c, drivers/libusb1.c, drivers/nutdrv\_atcl\_usb.c, drivers/richcomm\_usb.c: libusb 1.0 port: add missing libusb\_exit() calls
  - tools/nut-scanner/nutscan-init.c, tools/nut-scanner/scan\_usb.c, tools/nut-usbinfopl: nut-scanner: initial port to libusb 1.0 The port to libusb 1.0 is complete, at least from a build perspective. This now needs to be tested with devices
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  - drivers/triplite\_usb.c: triplite\_usb: remove extraneous comment char
  - drivers/nut\_libusb.h: permute typedef order of usb\_dev\_handle
  - drivers/nutdrv\_qx.c: nutdrv\_qx: initial port to libusb 1.0 The port to libusb 1.0 is complete, at least from a build perspective. This now needs to be tested with devices
  - drivers/richcomm\_usb.c: richcomm\_usb: missing function remap for libusb 0.1 usb\_strerror was not remapped for libusb 0.1 implementation
  - drivers/triplite\_usb.c: triplite\_usb: initial port to libusb 1.0 The port to libusb 1.0 is complete, at least from a build perspective. This now needs to be tested with devices
  - drivers/riello\_usb.c: riello\_usb: initial port to libusb 1.0 The port to libusb 1.0 is complete, at least from a build perspective. This now needs to be tested with devices
  - drivers/bcmxcp\_usb.c: bcmxcp\_usb: fix a warning on unused variable
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  - drivers/nutdrv\_atcl\_usb.c, drivers/richcomm\_usb.c: Remove redundant variable
  - drivers/triplite\_usb.c: triplite\_usb: remove extraneous comment char
  - drivers/nut\_libusb.h: permute typedef order of usb\_dev\_handle
  - drivers/nutdrv\_qx.c: nutdrv\_qx: initial port to libusb 1.0 The port to libusb 1.0 is complete, at least from a build perspective. This now needs to be tested with devices
  - drivers/richcomm\_usb.c: richcomm\_usb: missing function remap for libusb 0.1 usb\_strerror was not remapped for libusb 0.1 implementation
  - drivers/triplite\_usb.c: triplite\_usb: initial port to libusb 1.0 The port to libusb 1.0 is complete, at least from a build perspective. This now needs to be tested with devices
  - drivers/riello\_usb.c: riello\_usb: initial port to libusb 1.0 The port to libusb 1.0 is complete, at least from a build perspective. This now needs to be tested with devices
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**2.1530 2016-08-10 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/richcomm\_usb.c: richcomm\_usb: initial port to libusb 1.0 The port to libusb 1.0 is complete, at least from a build perspective. This now needs to be tested with devices
  - drivers/nutdrv\_atcl\_usb.c: nutdrv\_atcl\_usb: add the missing detach call libusb 1.0 provide its own routine for detaching kernel driver
  - drivers/Makefile.am, drivers/libhid.c, drivers/nut\_libusb.h: Forgotten occurrences of libusb.h renaming NUT internal header "libusb.h" was renamed, since it collides with the libusb 1.0 header, which has the same name. A few occurrences of reference and documentation were however missing
  - drivers/nutdrv\_atcl\_usb.c: nutdrv\_atcl\_usb: initial port to libusb 1.0 The port to libusb 1.0 is complete, at least from a build perspective. This now needs to be tested with devices
  - drivers/blazer\_usb.c: blazer\_usb: initial port to libusb 1.0 The port to libusb 1.0 is complete, at least from a build perspective. This now needs to be tested with devices
  - drivers/bcmxcp\_usb.c: bcmxcp\_usb: code cleanup
  - drivers/richcomm\_usb.c: richcomm\_usb: initial port to libusb 1.0 The port to libusb 1.0 is complete, at least from a build perspective. This now needs to be tested with devices
  - drivers/nutdrv\_atcl\_usb.c: nutdrv\_atcl\_usb: add the missing detach call libusb 1.0 provide its own routine for detaching kernel driver
  - drivers/Makefile.am, drivers/libhid.c, drivers/nut\_libusb.h: Forgotten occurrences of libusb.h renaming NUT internal header "libusb.h" was renamed, since it collides with the libusb 1.0 header, which has the same name. A few occurrences of reference and documentation were however missing
  - drivers/nutdrv\_atcl\_usb.c: nutdrv\_atcl\_usb: initial port to libusb 1.0 The port to libusb 1.0 is complete, at least from a build perspective. This now needs to be tested with devices
  - drivers/blazer\_usb.c: blazer\_usb: initial port to libusb 1.0 The port to libusb 1.0 is complete, at least from a build perspective. This now needs to be tested with devices
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  - drivers/blazer\_usb.c: blazer\_usb: initial port to libusb 1.0 The port to libusb 1.0 is complete, at least from a build perspective. This now needs to be tested with devices
  - drivers/bcmxcp\_usb.c: bcmxcp\_usb: code cleanup
-

**2.1531 2016-08-09 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/bcmxcp\_usb.c: bcmxcp\_usb: initial port to libusb 1.0 The port to libusb 1.0 is complete, at least from a build perspective. This now needs to be tested with devices
- docs/configure.txt, drivers/Makefile.am, drivers/libhid.c, drivers/libhid.h, drivers/{libusb.c ⇒ libusb0.c}, drivers/libusb1.c, drivers/{libusb.h ⇒ nut\_libusb.h}, drivers/usb-common.h, drivers/usbhid-ups.c: ushid-ups: complete the port to libusb 1.0 The port to libusb 1.0 is now complete for usbhid-ups. Other USB drivers (bcmxcp\_usb, blazer\_usb, nutdrv\_atcl\_usb, rich-comm\_usb, riello\_usb, triplite\_usb, nutdrv\_qx) have still to be addressed
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**2.1532 2016-08-06 Jim Klimov <jim@jimklimov.com>**

- docs/man/dummy-ups.txt: dummy-ups.txt : noted the sleep between loops
- docs/man/dummy-ups.txt: dummy-ups.txt : text and formatting revised to be clearer to the uninitiated

**2.1533 2016-08-04 Arnaud Quette <arnaud.quette@free.fr>**

- docs/man/snmp-ups.txt: snmp-ups: document the use of non-standard port SNMP agent may publish data over a non-standard port, i.e. not 161. This feature is supported since the origin, but was not explicitly documented nor usable

**2.1534 2016-08-01 Arnaud Quette <arnaud.quette@free.fr>**

- configure.ac, m4/nut\_check\_libusb.m4: Initial port to libusb 1.0 Starting with the configure checks, to detect if libusb 1.0 if available, and otherwise fall back to the libusb 0.1 backend
- configure.ac, m4/nut\_check\_libusb.m4: Initial port to libusb 1.0 Starting with the configure checks, to detect if libusb 1.0 if available, and otherwise fall back to the libusb 0.1 backend
- configure.ac, m4/nut\_check\_libusb.m4: Initial port to libusb 1.0 Starting with the configure checks, to detect if libusb 1.0 if available, and otherwise fall back to the libusb 0.1 backend

**2.1535 2016-07-12 Carlos Dominguez <cdominguezm@gmail.com>**

- common/common.c, include/common.h, tools/nut-scanner/nutscan-init.c: Arnaud's patch applied, dynamic library bug fixed, tested!
-

**2.1536 2016-07-11 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/snmp-ups.c: snmp-ups: fix device.type publication In daisychain mode at least, device.type was not set to its actual value, using the current mapping structure, but defaulting to "ups" (reported by Tomas Halman, from Eaton)
- drivers/snmp-ups.c: snmp-ups: fix and improve match\_sysoid The function was returning FALSE instead of NULL in one case. Also retry at most 3 times to get the sysOID

**2.1537 2016-07-07 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/snmp-ups.c: snmp-ups: fix instant commands publication With non-daisychain setup, there was a bug that created an infinite test loop when trying to add instant commands

**2.1538 2016-07-04 Arnaud Quette <arnaud.quette@free.fr>**

- common/common.c, include/common.h, tools/nut-scanner/nutscan-init.c: Move get\_libname() to common This function, originally created for nut-scanner, to be able to lookup for libraries loaded using libtool loader, is now also useful for the DMF support. This last loads libneon at runtime, to load DMF structure (including the one for nut-scanner) and unload it once the file were read

**2.1539 2016-07-04 Arnaud Quette <arnaud.quette@free.fr>**

- docs/man/nut-scanner.txt: comment about debugging level for troubleshooting Originates from commit 951f8f8b3 by Date: Mon Jul 4 16:27:29 2016 \+0200

**2.1540 2016-06-30 Tomas Halman <TomasHalman@eaton.com>**

- clients/nutclient.cpp: nutclient: fix library segmentation fault if device name doesn't exists. If device doesn't exist, getClient() returns NULL. Then calling the method like getClient()→getDescription(getName()) causes segfault. We rather check the status and throw an exception in this case.

**2.1541 2016-06-25 Charles Lepple <clepple+nut@gmail.com>**

- docs/acknowledgements.txt: doc: fix acknowledgements link to GitHub

**2.1542 2016-06-23 Timothy Pearson <kb9vqf@pearsoncomputing.net>**

- drivers/libhid.c, drivers/tripplite-hid.c, drivers/usbhid-ups.c, scripts/upower/95-upower-hid.rules: Add support for SU3000LCD2UHV Note that protocol 1330 does not respond to requests for UPS.OutletSystem.Outlet.DelayBeforeReboot, therefore those requests needed to be bypassed in the driver.

**2.1543 2016-06-23 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/mge-xml.c: netxml-ups: detect the unsupported XML v4 protocol The XML/PDC protocol had an update with version 4, for ePDU. However, this version is not supported by netxml-ups. We now detect this version, and explicitly exit with an "XML v4 protocol is not supported!" message
  - drivers/netxml-ups.c: netxml-ups: fix a segmentation fault netxml\_get\_page() was not checking if page is NULL, hence resulting in a segmentation fault with Eaton ePDU, which use the unsupported version 4 of the XML/PDC protocol. Bump the driver version to 0.41
-



**2.1544 2016-06-13 Tomas Halman <TomasHalman@eaton.com>**

- clients/nutclient.cpp: NUT client library: internal::Socket class must close socket in destructor.

**2.1545 2016-06-09 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/snmp-ups.c: snmp-ups: 2nd pass on fixing memory leaks Fix some remaining memory leaks reported by Coverity scan
- drivers/snmp-ups.c: snmp-ups: fix memory leaks and incorrect expression Following the registration of NUT in Coverity scan, a number of issues were identified. This is the very first set of QA fixes related to this static code analysis

**2.1546 2016-06-08 Arnaud Quette <arnaud.quette@free.fr>**

- Makefile.am: AIX package: reference the exact tarball version

**2.1547 2016-06-07 Charles Lepple <clepple+nut@gmail.com>**

- docs/download.txt: Update VMware ESXi package link (from René Garcia)

**2.1548 2016-06-07 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/snmp-ups.c: snmp-ups: fix some regression due to daisychain A few issues were remaining, following the daisychain support addition. Issues were related to, at least, 3ph initialization and data not being published, and identified with Eaton 3ph units, using the "pw" MIB (reported by Yves Clauzel, from Eaton)

**2.1549 2016-06-05 Timothy Pearson <kb9vqf@pearsoncomputing.net>**

- drivers/powerp-txt.c: Add deep battery test for CyberPower OL3000RMXL2U

**2.1550 2016-05-31 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/snmp-ups.c, drivers/snmp-ups.h: snmp-ups: support daisychain commands and settings Daisychain commands and settings on subdevices are now supported. Since 95% of the code of these two functions was similar, a new function called su\_setOID() was created, and is now called by su\_setvar and su\_instcmd. This new function is also daisychain-aware
- drivers/dstate.c: dstate: adapt daisychain devices functions For daisychain devices, we increase the counter when alarms are present on a subdevice, but don't decrease the count when the buffer is empty. Otherwise, we may not get the ALARM flag in ups.status, while there are some alarms present on device.X
- drivers/eaton-mib.c: snmp-ups: fix input.L2.voltage on Eaton G2/G3 PDU This data entry was missing the daisychain formatting directive, which resulted in this data not being published (reported by Vyskocil Michal from Eaton)

**2.1551 2016-05-27 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/snmp-ups.c: snmp-ups: fix regression related to daisychain Fix a few regression with unitary devices, related to the daisychain changes of the SNMP core engine
  - drivers/dstate.c: dstate: enforce underflow to not generate false alarm The newly introduced daisychain mechanism, with alarm counters (not just boolean) introduced a potential underflow on alarm\_commit, which resulted in false positive "ALARM" flag publication in ups.status
-



- drivers/snmp-ups.c: snmp-ups: update for daisychain Update the daisychain implementation, as per the latest specification, including considerations on "device.0". Alarms are also handled for the daisychain devices. Initial code for settings and commands is also present, but will be completed in subsequent commits, along with a final cleanup and potential composite settings and commands on "device.0" (that are then applied to all daisychain devices)
- drivers/eaton-mib.c: snmp-ups: fix some daisychain data for Eaton PDU Some data (outlet.%i.current, outlet.%i.power, outlet.%i.load.{off,on,cycle} and outlet.group.%i.load.{off,on,cycle}) were missing the daisychain formatting string, and were hence not published
- docs/daisychain.txt, drivers/dstate.c, drivers/dstate.h: dstate: add functions to address daisychain alarms Add 2 new functions, device\_alarm\_init() and device\_alarm\_commit(), to address daisychain devices: these acts as the standard alarm\_{init,commit}, but only clearing / committing the alarm buffer, and not reinitializing the main alarm counter. Hence, the "device.0" (whole daisychain) knows if it has to publish the "ALARM" flag in ups.status

#### 2.1552 2016-05-25 Jim Klimov <jim@jimklimov.com>

- drivers/powerware-mib.c: powerware-mib - renamed "ietf\_\*" and "eaton\_\*" lookups to have "pw\_\*" prefix
- drivers/raritan-px2-mib.c: raritan-px2-mib - renamed lookups to have "raritanpx2\_\*" prefix
- drivers/raritan-pdu-mib.c: raritan-pdu-mib - renamed lookups to have "raritan\_pdu\_\*" prefix
- drivers/powerware-mib.c: powerware-mib - renamed "ietf\_\*" and "eaton\_\*" lookups to have "pw\_\*" prefix
- drivers/baytech-mib.c: baytech-mib - renamed "outlet\_status\_info" lookup to "baytech\_outlet\_status\_info"
- drivers/apc-ats-mib.c: apc-ats-mib.c- renamed "ats\_\*" lookups to "apc\_ats\_\*"
- drivers/huawei-mib.c: huawei-mib - renamed lookups to have "huawei\_\*" prefix (cherry picked from commit fd29f32b2837588518ec7)

#### 2.1553 2016-05-25 Arnaud Quette <arnaud.quette@free.fr>

- docs/new-drivers.txt: daisychain: add a reference for drivers and alarms
- docs/daisychain.txt: daisychain: update specification for alarms handling
- drivers/eaton-mib.c, drivers/snmp-ups.c, drivers/snmp-ups.h: snmp-ups: daisychain update, fix and completion Following the specification update on "device.0" consideration, adapt the current implementation. For now, the whole daisychain will only publish device.{mfr,model,count}. Initial support for settings and commands was also added, and will be expanded to "device.0"
- docs/daisychain.txt: daisychain: update and fix specification
- docs/daisychain.txt: daisychain: update specification as per discussion

#### 2.1554 2016-05-23 Jim Klimov <jim@jimklimov.com>

- drivers/mge-mib.c: mge-mib.c : rename rogue ietf\_\* lookups to mge\_\*

#### 2.1555 2016-05-23 Arnaud Quette <arnaud.quette@free.fr>

- docs/Makefile.am, docs/daisychain.txt, docs/developer-guide.txt, docs/user-manual.txt: daisychain documentation: fix documentation building The daisychain documentation was missing from the build rules, and from the documentation integration, which resulted in documentation build being broken (reported by Charles Lepple). As a side note, the documentation (both user and developer) will need some update and cleanup, now that there is more content Closes: <https://github.com/networkupstools/nut/issues/291>
- drivers/eaton-mib.c: snmp-ups: Eaton Aphel Revelation updates Update Eaton Aphel Revelation MIB mapping, by fixing outlets switchability publication and adding "device.revision". This last data still has to be submitted as an RFC for extending NUT variables namespace

**2.1556 2016-05-19 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/snmp-ups.c: snmp-ups: fix daisychain regression A bug was discovered with the new daisychain code and non-daisychained device, resulting in data not being published

**2.1557 2016-05-18 Jim Klimov <jim@jimklimov.com>**

- Makefile.am: root Makefile.am : clone "make distcheck-light" in a new target "make distcheck-light-man" to specifically only want docs=man

**2.1558 2016-05-18 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/compaq-mib.c, drivers/ietf-mib.c, drivers/mge-mib.c, drivers/netvision-mib.c, drivers/powerware-mib.c, drivers/snmp-ups.c, drivers/snmp-ups.h: snmp-ups: daisychain handling of 1ph / 3ph phases Per device phases management is now available in daisychain mode, for input, output and bypass. The overall mechanism for phase determination has also changed to something more generic, and not requiring the SU\_FLAG\_SETINT flag
- drivers/eaton-mib.c: snmp-ups: fix input.phases for Eaton G2 / G3 ePDU The current implementation was using the number of input, not the number of phase(s)

**2.1559 2016-05-17 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/eaton-mib.c: snmp-ups: initial daisychain support for Eaton PDU Following the base implementation for daisychain support in the SNMP driver core (snmp-ups), add support for daisychain for Eaton PDU. Commands definitions are disabled for now, and will be addressed in a subsequent commit
- drivers/snmp-ups.c, drivers/snmp-ups.h: snmp-ups: base daisychain support This commit includes the initial support for daisy-chain. There are however a number of limitations that still need to be addressed, such as: \* {input,output,bypass}.phase handling: for now, mixed / hybrid daisychains are not supported \* All devices alarms are pushed to "ups.alarm" without discriminant (i.e. not "device.X" appended to the alarm) \* commands and settings are not yet handled \* non-regression testing on unitary devices have to be done
- README, docs/outlets.txt, docs/user-manual.txt: Documentation adjustments
- docs/daisychain.txt, docs/nut-names.txt: daisychain: initial specification and documentation
- drivers/mge-hid.c: mge-shut/usbhid-ups: list AEG PROTECT NAS vendor 06da AEG PROTECT NAS were previously using VendorID / ProductID 0x2b2d / 0xffff, and are now using 0x06da / 0xffff. Also bump the mge-hid subdriver version to 1.40

**2.1560 2016-05-13 Jim Klimov <jim@jimklimov.com>**

- drivers/Makefile.am: snmp and netxml UPSes should have SSL flags/libs if configured? Without the DMF part of original commit e56b0b8bdf818fbf21805fe1cc67ec2c03719062
- drivers/Makefile.am, drivers/apc-iem-mib.h, drivers/apc-mib.c, drivers/apc-mib.h: drivers/apc-iem-mib.h: split some macro definitions away from apc-mib.h and apc-mib.c and snmp-ups.c

**2.1561 2016-05-13 Arnaud Quette <arnaud.quette@free.fr>**

- docs/man/nutupsdrv.txt: Mention explicitly the default pollinterval As in ups.conf manual page, mention the default poll interval, to make it clear
-

**2.1562 2016-05-10 Arnaud Quette <arnaud.quette@free.fr>**

- docs/nut-qa.txt: NUT QA: add Coverity static code analysis information NUT is now a registered Coverity project, and can thus get static code analysis from it. This is just a first step, and actions are needed to address the actual defects and complete the project configuration. Due thanks to Synopsys, Inc., mother firm of Coverity, for providing this service to Opensource project

**2.1563 2016-05-09 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/apc-mib.c, drivers/snmp-ups.h: snmp-ups: remove the redundant SU\_TYPE\_STRING define SU\_TYPE\_STRING was originally created to expose a required cast to string. However, it is redundant with ST\_FLAG\_STRING, and not useful in the end. The only subdriver that was using it is apc-mib (UPS support) and this was a no-op
- README: Fix wrong link reference The "NUT outlets management and PDU notes" were wrongly referred to as "Configuring automatic UPS shutdowns"

**2.1564 2016-05-04 Jim Klimov <jim@jimklimov.com>**

- .gitignore, docs/.gitignore: GitIgnore some built documents

**2.1565 2016-05-03 Jim Klimov <jim@jimklimov.com>**

- configure.ac: configure.ac : prefer "/usr/share/augeas/lenses/dist" over "/usr/share/augeas/lenses" if present
- docs/Makefile.am, docs/man/Makefile.am: Follow-up to NUT [PR #281](#) - notice for the future
- docs/Makefile.am, docs/man/Makefile.am: Revert toxic commit: "a2x says "--destination-dir" is only valid for HTML... so let us reduce complaints reported in build" This reverts commit fe17861c4ea12679b3ebfefa8a6d692d79d99f2d because in fact asciidoc (8.6.9) lies about not supporting the flag, and it is required for ASCIIDOC\_VERBOSE=-v make distcheck-light to pass. So let's keep it complaining but working.
- Makefile.am, configure.ac, scripts/augeas/Makefile.am: Allow "make install" to deliver Augeas lenses into the path defined by configure (defaults to /usr/share/augeas/lenses)

**2.1566 2016-05-03 Arnaud Quette <arnaud.quette@free.fr>**

- docs/configure.txt: Document Augeas lenses configure option Add documentation on the new configure option --with-augeas-lenses-dir=PATH

**2.1567 2016-05-02 Jim Klimov <jim@jimklimov.com>**

- docs/Makefile.am, docs/man/Makefile.am: a2x says "--destination-dir" is only valid for HTML... so let us reduce complaints reported in build
- configure.ac: configure.ac : by default, "--with-doc=man=yes" to match legacy expectations, and permit "make dist" out of the box

**2.1568 2016-04-26 Arnaud Quette <arnaud.quette@free.fr>**

- tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c: nut-scanner: Force numeric OIDs resolution Force numeric OIDs resolution (ie, do not resolve to textual names) and disable MIB loading. This is mostly for the convenience of debug and results output
  - scripts/subdriver/gen-snmp-subdriver.sh: SNMP subdriver generator: add a FIXME
-

**2.1569 2016-04-16 Charles Lepple <clepple+nut@gmail.com>**

- data/driver.list.in, drivers/mge-hid.c, scripts/upower/95-upower-hid.rules: usbbhid-ups: add IBM USB VID Reference: <http://article.gmane.comp.monitoring.nut.user/7721> and [http://news.gmane.org/find-root.php?message\\_id=5712AB29.6040001%40delphinidae.org](http://news.gmane.org/find-root.php?message_id=5712AB29.6040001%40delphinidae.org)

**2.1570 2016-04-11 Michal Vyskocil <michalvyskocil@eaton.com>**

- drivers/netvision-mib.c: netvision-mib: uses 0 as dfl Change to NULL as other subdrivers does

**2.1571 2016-04-11 Arnaud Quette <arnaud.quette@free.fr>**

- tools/nut-scanner/nutscan-init.c: nut-scanner: additional search path Prepend "/usr/" to the provided --libdir, in case this one points at "/lib/..." or similar, and not to "/usr/lib/..."

**2.1572 2016-04-09 Émilien Kia <emilien.kia@gmail.com>**

- clients/nutclient.cpp: Correctly increment pointer in stringset\_to\_strarr and stringvector\_to\_strarr. Fix bug #232
- tests/Makefile.am, tests/nutclienttest.cpp: Create unit test (failing for now) to test bug #232 (nutclient: stringset\_to\_strarr() and stringvector\_to\_strarr() only work for one element).
- clients/nutclient.cpp: Make string[set|vector]\_to\_strarr public to be accessible to unit tests.
- clients/nutclient.h: Make nut::Client::~~Client virtual. Prevent compilation warning [-Wdelete-non-virtual-dtor].

**2.1573 2016-04-08 Jim Klimov <jim@jimklimov.com>**

- configure.ac, docs/configure.txt: configure.ac : do not inspect systemdunitdir with pkg-info if we asked not to use it at all

**2.1574 2016-04-07 Jim Klimov <jim@jimklimov.com>**

- docs/configure.txt, m4/nut\_check\_libgd.m4, m4/nut\_check\_libnetsnmp.m4: Allow to customize path to gdlib-config and net-snmp-config programs

**2.1575 2016-04-07 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/raritan-px2-mib.c: snmp-ups: fix a missing field in raritan\_px2 mapping The default value (dfl field) was missing, and thus producing a compilation warning

**2.1576 2016-04-06 Arnaud Quette <arnaud.quette@free.fr>**

- data/driver.list.in, docs/man/snmp-ups.txt, drivers/Makefile.am, drivers/raritan-px2-mib.c, drivers/raritan-px2-mib.h, drivers/snmp-ups.c: snmp-ups: support Raritan Dominion PX2 PDU Based on initial work and data from Opendgear, using SNMP subdriver creation script, add support for the more recent Raritan PDU, model PX2. This was tested with a PX2-1486 (Metered Input), but should cover all PX2 models
- scripts/subdriver/gen-snmp-subdriver.sh: SNMP subdriver creation script: minor updates

**2.1577 2016-04-03 Alica <alicaccs@yahoo.com.tw>**

- conf/upsstats.html.sample: upsstats.html: Conform to HTML 4.01 Strict Closes: <https://github.com/networkupstools/nut/pull/278>
  - conf/upsstats-single.html.sample: upsstats-single.html: Conform to HTML 4.01 Strict
-

**2.1578 2016-03-24 Kirill Ovchinnikov <[kirill@rednoize.su](mailto:kirill@rednoize.su)>**

- drivers/snmp-ups.c, drivers/snmp-ups.h: Added a feature of power on and power off delay time writing to UPS configuration; Added support of writing "timeticks" values to su\_setvar() routine

**2.1579 2016-03-23 Michal Vyskocil <[michalvyskocil@eaton.com](mailto:michalvyskocil@eaton.com)>**

- drivers/eaton-mib.c: Bumb version of eaton-mib

**2.1580 2016-03-23 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>**

- configure.ac, docs/configure.txt, docs/man/Makefile.am: Added WITH\_MANS support (to toggle generation of manpages) and revised other documentation formats
- configure.ac: Fix "--with-doc=auto" to use present doc-gens \* configure.ac : when using "--with-doc" do actually proceed if some supported methods are found and some are not... build what we can on this platform \* configure.ac : revised upon peer review : yes==all, default(empty)==no as documented in --help, auto guesser must be explicit

**2.1581 2016-03-23 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- docs/man/snmp-ups.txt, docs/snmp.txt: Fix references to the SNMP section of protocols

**2.1582 2016-03-22 Michal Vyskocil <[michalvyskocil@eaton.com](mailto:michalvyskocil@eaton.com)>**

- drivers/snmp-ups.h: snmp-ups: mark SU\_FLAG\_OK as internal to the driver
- drivers/eaton-mib.c: snmp-ups: add outlet type to Eaton Marlin MIB
- drivers/snmp-ups.h: snmp-ups: enhance documentation of some flags Mark SU\_FLAG\_OK as deprecated and SU\_FLAG\_STALE as internal to driver. This helps new developers to write or extend snmp subdrivers.
- docs/nut-names.txt: Document outlet.n.type Add and document outlet.n.type variable, which provides information about physical outlet type.

**2.1583 2016-03-22 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- configure.ac: Remove the extraneous GNU in front of FreeIPMI Messages are now more homogeneous
- docs/configure.txt: Clarify multiple specifier for --with-doc
- docs/configure.txt: Update FreeIPMI requirements The documented requirements were out of date, compared to the tests done at configure time

**2.1584 2016-03-19 Charles Lepple <[clepple+nut@gmail.com](mailto:clepple+nut@gmail.com)>**

- configure.ac: Version to 2.7.4.1 for snapshots

**2.1585 2016-03-18 Marty R <[martin.p.rowe@gmail.com](mailto:martin.p.rowe@gmail.com)>**

- docs/download.txt: Update OpenWRT package information The previous link is over 5 years old, nut is now maintained in the packages repository on GitHub.
-

**2.1586 2016-03-10 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- tools/nut-scanner/Makefile.am: Fix nut-scanner compilation in some environments Following the commits 5187dab (common: add some string-related functions) and e767df5 (common: consolidate some string-related functions), the build rules of nut-scanner were not updated to also use str.c. Since the libcommon.la dependency was still there, some environments managed to build cleanly, while other are failing. Update build dependencies to fix this situation
- drivers/powerware-mib.c: snmp-ups: Eaton 3ph UPS improvements Fix the battery test status reporting, and start to simplify the mapping layout by getting rid of some #define. Also add the following: - battery test result "Unknown" - last battery replacement date (battery.date) - output.voltage thresholds (high and low) and nominal value
- drivers/snmp-ups.c: snmp-ups: add a debug trace on nut\_snmp\_get\_int()

**2.1587 2016-03-09 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- configure.ac: Fix autoreconf on Debian For some reason, Automake doesn't search the current directory correctly when searching for helper scripts, when *nut* is running as a git-submodule, as it is the case with the website repository
- configure.ac: update version to 2.7.4
- drivers/apc-ats-mib.c: snmp-ups: add APC ATS input.source
- drivers/snmp-ups.c: snmp-ups: fix the matching OID tests For both sysOID and classic methods, we used to test one of the two OIDs provided in the mib2nut structures. However, these two OIDs (oid\_pwr\_status and oid\_auto\_check) tend to be redundant and confusing. Replace these matching by an extraction of {ups,device}.model
- drivers/nut-libfreeipmi.c: nut-ipmipsu: fix compilation warnings
- NEWS, UPGRADING, docs/FAQ.txt, docs/net-protocol.txt, docs/new-drivers.txt, docs/nut-names.txt, docs/nutdrv\_qx-subdrivers.txt, docs/packager-guide.txt, docs/snmp-subdrivers.txt, lib/README, scripts/augeas/README: Fix spelling and typo errors Following the spell-checking scope expansion, do a spell-checking pass
- docs/documentation.txt: Update documentation as per the new devices scope
- docs/features.txt, docs/user-manual.txt: Update documentation as per the new devices scope
- docs/Makefile.am: Expand spell-checking scope Add more documents, outside of the docs/ directory Closes: <https://github.com/networkupstools/nut/issues/222>

**2.1588 2016-03-08 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- configure.ac, tools/Makefile.am, tools/driver-list-format.sh: Check driver.list[.in] format at make dist time Instead of checking driver.list.in at configure time, move the checking and modification into a script that is called at make dist time. The script can also be called manually, and will try to fix both driver.list.in and driver.list

**2.1589 2016-03-07 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- drivers/powerware-mib.c: Remove an erroneous test This was made test the enumerated values registration in snmp-ups, and should not have been committed
- data/driver.list.in: HCL: APC ATS AP7724 supported by snmp-ups These Automatic Transfer Switch should be supported by snmp-ups, however this was not tested at all Reference: <https://github.com/networkupstools/nut/issues/260>
- NEWS, UPGRADING: Update for release 2.7.4
- drivers/Makefile.am, drivers/apc-ats-mib.c, drivers/apc-ats-mib.h, drivers/snmp-ups.c: snmp-ups: support APC Automatic Transfer Switch Following the recent extension of NUT scope and variable namespace, to support Automatic Transfer Switch (ATS), implement SNMP support for APC ATS (with help from "maaboo" through github) Reference: <https://github.com/networkupstools/nut/issues/260>

**2.1590 2016-03-04 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/baytech-mib.c, drivers/bestpower-mib.c, drivers/compaq-mib.c, drivers/cyberpower-mib.c, drivers/eaton-mib.c, drivers/mge-mib.c, drivers/netvision-mib.c, drivers/powerware-mib.c, drivers/raritan-pdu-mib.c: snmp-ups: fix mib2nut structures Non existent OIDs, for testing MIB selection, must be expressed as NULL and not as empty string ("") for the algorithm to work

**2.1591 2016-03-03 Daniele Pezzini <hyouko@gmail.com>**

- docs/download.txt: docs: update several download links

**2.1592 2016-03-03 Arnaud Quette <arnaud.quette@free.fr>**

- docs/man/upsrw.txt, docs/net-protocol.txt: Clarification on NUMBER type float values Clarify a bit more documentation on how to express float values, when using upsrw. That is to say, using decimal (base 10) english-based representation, so using a dot, in non-scientific notation. So hexadecimal, exponents, and comma for thousands separator are forbidden
- clients/upsrw.c, docs/net-protocol.txt, server/netget.c: Prefer NUMBER to NUMERIC for variable type As per discussion on the Github pull request, NUMBER would be more suitable than NUMERIC

**2.1593 2016-03-02 Arnaud Quette <arnaud.quette@free.fr>**

- data/driver.list.in: HCL: added Eaton Powerware 9125-5000g Supported with the additional USB card, with the bcmxcp\_usb driver
- docs/man/upsrw.txt, docs/net-protocol.txt: Clarification on NUMERIC type float values Clarify documentation on how to express float values, when using upsrw. That is to say, using decimal english-based representation, so using a dot
- drivers/mge-xml.c: netxml-ups: fix Eaton XML published data Some raw protocol data were wrongly published, and are now commented. Also add some R/W flags to ambient thresholds Closes: <https://github.com/networkupstools/nut/issues/201>
- tools/nut-scanner/nut-scanner.c: nut-scanner: fix thread attachment Add a test to have the right thread waiting for the scan to be complete (patch from Michal Hlavinka, Red Hat)
- configure.ac, tools/nut-scanner/nutscan-init.c, tools/nut-scanner/scan\_avahi.c, tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_usb.c, tools/nut-scanner/scan\_xml\_http.c: nut-scanner: don't depend on development libraries nut-scanner was previously trying to use directly libXXX.so (libusb-0.1, libfreeipmi, libnetsnmp, libavahi-client, libneon, libupsclient). However, these files are generally provided by the development packages. nut-scanner now tries to look at some known paths, including the one provided through --libdir, to find the correct libraries Closes: <https://github.com/networkupstools/nut/issues/233>

**2.1594 2016-03-01 Arnaud Quette <arnaud.quette@free.fr>**

- clients/upsrw.c, docs/net-protocol.txt, server/netget.c: Default to type NUMERIC for variables Any variable that is not STRING, RANGE or ENUM is just a simple numeric value. The protocol documentation (net-protocol.txt) was previously stating that "The default <type>, when omitted, is integer." which was not fully true, since a variable could also be a float. Hence, the wording was changed to advertise this, and that each driver is then responsible for handling values as either integer or float. Moreover, instead of returning a TYPE "UNKNOWN", return "NUMERIC", which is more suitable, and aligned with the NUT protocol specification
  - tools/nut-snmppinfo.py: SNMP subdriver generator: fix output formatting
  - tools/nut-snmppinfo.py: SNMP subdriver generator: discard commented lines Discard any commented mib2nut\_info\_t declaration, which should thus not be taken into account
-



**2.1595 2016-02-26 Arnaud Quette <arnaud.quette@free.fr>**

- data/driver.list.in, drivers/Makefile.am, drivers/eaton-ats-mib.c, drivers/eaton-ats-mib.h, drivers/snmp-ups.c: snmp-ups: support Eaton Automatic Transfer Switch Following the recent extension of NUT scope and variable namespace, to support Automatic Transfer Switch (ATS), implement SNMP support for Eaton ATS. Note that this device can also be supported through Eaton XML/PDC (XML over HTTP) protocol, supported by the NUT netxml-ups driver
- data/cmdvartab, docs/nut-names.txt: Extend namespace for Automatic Transfer Switch (ATS) Extend NUT namespace to support a new type of power device: ATS - Automatic Transfer Switch. These devices are used to setup 2 power systems, such as UPS, to power a single power supply system, and be able to automatically transfer between the input sources in case of failure of the primary one. The added variable are for now limited to *input.source* and *input.source.preferred*, but may be extended if needed

**2.1596 2016-02-25 C Fraire <cfraire@me.com>**

- docs/scheduling.txt: Fix docs location of upssched to sbin

**2.1597 2016-02-25 Arnaud Quette <arnaud.quette@free.fr>**

- scripts/subdriver/gen-snmp-subdriver.sh: snmp-ups: add the last missing element in the structure
- drivers/apc-mib.c, drivers/bestpower-mib.c, drivers/compaq-mib.c, drivers/cyberpower-mib.c, drivers/delta\_ups-mib.c, drivers/huawei-mib.c, drivers/ietf-mib.c, drivers/mge-mib.c, drivers/netvision-mib.c, drivers/powerware-mib.c, drivers/xppc-mib.c, scripts/subdriver/gen-snmp-subdriver.sh: snmp-ups: fix values lookup terminating element The terminating element should really be NULL, and not the string "NULL", as it was originally done, back in 2002
- drivers/snmp-ups.c: snmp-ups: revert order of the NULL/"NULL" test Fix a segfault when doing first the string comparison test
- drivers/snmp-ups.c: snmp-ups: register values enumerations Whenever there is a values lookup structure for read/write data, push the values as enumerations for upsrw
- drivers/snmp-ups.c: snmp-ups: try to lookup values for numeric elements Numeric elements can also use the value resolution mechanism
- drivers/snmp-ups.c: snmp-ups: counter test sysOID with a test OID Some devices have buggy sysOID exposed. Allow to counter test another OID, to be able to select between different mapping structures

**2.1598 2016-02-24 Arnaud Quette <arnaud.quette@free.fr>**

- scripts/subdriver/gen-snmp-subdriver.sh: SNMP subdriver creation script: allow sysOID override Allow to use -s to override buggy sysOID in some device FW. In this case, the sysOID entry in the mib2nut structure should be set to NULL

**2.1599 2016-02-11 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/raritan-pdu-mib.c: snmp-ups: fix macaddr support for Raritan PDU Raritan MIB was fixed to expose macaddr on device.macaddr instead of ups.macaddr
  - drivers/baytech-mib.c: snmp-ups: fix macaddr support for Baytech PDU Baytech MIB was fixed to expose macaddr on device.macaddr instead of ups.macaddr
  - drivers/eaton-mib.c: snmp-ups: fix and complete macaddr support for Eaton Eaton G2 and G3 can now expose the MAC address of the device, using device.macaddr. Eaton G1 Aphil was fixed to expose this data on device.macaddr instead of ups.macaddr
  - drivers/snmp-ups.c: snmp-ups: add support for hexadecimal octet strings
-



- drivers/snmp-ups.c: snmp-ups: fallback for classic MIB detection If the sysOID matching has failed, then snmp-ups uses ups.model to get an OID to test. In case ups.model is not available, fallback to trying to use device.model instead
- docs/images/nut\_layering.png, docs/images/nut\_layering.svg: Refresh and complete NUT architecture diagram

#### 2.1600 2016-02-08 Arnaud Quette <arnaud.quette@free.fr>

- drivers/powerware-mib.c: snmp-ups: extend Eaton 3ph outputSource values map Add the new status values for xupsOutputSource (.1.3.6.1.4.1.534.1.4.5.0), that maps to both ups.status and ups.type

#### 2.1601 2016-02-03 Arnaud Quette <arnaud.quette@free.fr>

- drivers/powerware-mib.c: snmp-ups: improve support for Eaton 3ph Improve support for temperature and humidity data, including: - ups.temperature now available - fixing ambient.temperature (previously pointing at a wrong OID) - ambient.humidity now available - the following settings now available: \* ups.temperature.low \* ups.temperature.high \* ambient.humidity.high
- ambient.humidity.low \* ambient.temperature.high \* ambient.temperature.low

#### 2.1602 2016-02-01 Daniele Pezzini <hyouko@gmail.com>

- data/driver.list.in: HCL: various APCUPSD-controlled APC devices via apcupsd-ups Originally reported by GitHub user @Thermionix. Reference: <https://github.com/networkupstools/nut/pull/215>

#### 2.1603 2016-01-31 Charles Lepple <clepple+nut@gmail.com>

- docs/man/nutdrv\_atcl\_usb.txt: man/nutdrv\_atcl\_usb: point to nutdrv\_qx (fuji) for 0001:0000 Also update best guess for the USB-to-serial converter situation.
- docs/FAQ.txt: FAQ: udevadm for fixing permissions

#### 2.1604 2016-01-30 Charles Lepple <clepple+nut@gmail.com>

- drivers/nut-libfreeipmi.c: FreeIPMI: do not split function arguments with a conditional Alternate approach to suggestion by Romero B. de S. Malaquias Closes: <https://github.com/networkupstools/nut/pull/250>

#### 2.1605 2016-01-24 Charles Lepple <clepple+nut@gmail.com>

- docs/config-notes.txt: Documentation: fix formatting Put syntax examples in verbatim mode, and remove spaces from ends of lines.
- drivers/apc-hid.c: usbhid-ups: handle missing USB strings in APC code Closes: <https://github.com/networkupstools/nut/issues/258> Might fix: <https://bugs.launchpad.net/ubuntu/+source/nut/+bug/1483615>

#### 2.1606 2016-01-23 Charles Lepple <clepple+nut@gmail.com>

- data/driver.list.in: HCL: added NHS Laser Senoidal 5000VA Source: <http://article.gmane.org/gmane.comp.monitoring.nut.devel/7123> Closes: <https://github.com/networkupstools/nut/issues/254>

#### 2.1607 2016-01-14 Arnaud Quette <arnaud.quette@free.fr>

- drivers/snmp-ups.c: snmp-ups: fix staleness detection With some ePDUs or devices using template for outlet and outlet.group, communication loss with the device were not detected, due to the handling mechanism. Simply skipping commands for templates, after the init time, is sufficient to avoid this issue

**2.1608 2016-01-05 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/snmp-ups.c: snmp-ups: improve stale communication recovery Disable the 10 iterations to retry communicating with stale device. This was leading up to 10 x 30 seconds, so 5mn, before being able to get data again
- docs/new-drivers.txt, docs/nut-names.txt: Document battery.charger.status This will in time replace the historic CHRG and DISCHRG flags published in ups.status. Closes <https://github.com/networkupstools/nut/issues/196>

**2.1609 2016-01-04 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/ietf-mib.c, drivers/ietf-mib.h, drivers/snmp-ups.c: snmp-ups: add support for Tripplite units on IETF mib These devices expose ".1.3.6.1.4.1.850.1", which could be supported through this specific MIB. For now, just link that to the IETF MIB, to provide a first level of support Reference: <https://github.com/networkupstools/nut/issues/171>

**2.1610 2016-01-03 Charles Lepple <clepple+nut@gmail.com>**

- data/driver.list.in: HCL: Sweex model P220 via blazer\_usb Reference: <https://github.com/networkupstools/nut/issues/251>

**2.1611 2015-12-30 Arnaud Quette <arnaud.quette@free.fr>**

- configure.ac: First stab at checking driver.list.in format

**2.1612 2015-12-29 Charles Lepple <clepple+nut@gmail.com>**

- scripts/upower/95-upower-hid.rules: upower: update for AEG

**2.1613 2015-12-29 Arnaud Quette <arnaud.quette@free.fr>**

- docs/config-notes.txt: Add a complementary note on Windows and serial ports
- conf/ups.conf.sample, docs/man/ups.conf.txt: Document serial port naming on Windows Addressing serial port on Windows system requires to express the port in ups.conf in a special way Reference: <https://github.com/networkupstools/nut/issues/198>
- drivers/powercom.c: Fix the processing of output voltage for KIN units The processing of output voltage requires to also take into account the line voltage, as reported by Patrik Dufresne. This may still need some further adjustments Reference: <https://github.com/networkupstools/nut/issues/187>
- drivers/powercom.c: Fix the processing of input voltage for KIN units The processing of input voltage requires to also take into account the line voltage, as reported by Patrik Dufresne. Also bump the driver version to 0.16, since 0.15 was already used, but not set Reference: <https://github.com/networkupstools/nut/issues/187>
- drivers/mge-hid.c: Fix letter case for AEG USB VendorID The letter case of this VendorID may be important for generated files, such as the udev ones (reported by Charles Lepple)

**2.1614 2015-12-28 Arnaud Quette <arnaud.quette@free.fr>**

- data/driver.list.in, drivers/mge-hid.c: HCL: AEG PROTECT B / NAS supported by usbhid-ups Reference: <https://github.com/networkupstools/nut/issues/249>

**2.1615 2015-12-17 Daniele Pezzini <hyouko@gmail.com>**

- data/driver.list.in: HCL: Legrand Keor Multiplug supported by nutdrv\_qx Reference: <https://github.com/networkupstools/nut/issues/248>
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**2.1616 2015-12-09 Andrey Jr. Melnikov <temnota.am@gmail.com>**

- drivers/bcmxcp\_usb.c: Don't call usb\_close() after reset

**2.1617 2015-12-08 Andrey Jr. Melnikov <temnota.am@gmail.com>**

- drivers/bcmxcp\_usb.c: Call usb\_reset() when driver unable to claim device
- drivers/bcmxcp.h, drivers/bcmxcp\_usb.c: Refactor get\_answer() routine, make it properly deal with multi-packets responses. Lower stack usage.

**2.1618 2015-11-22 Daniele Pezzini <hyouko@gmail.com>**

- drivers/nutdrv\_qx.c: nutdrv\_qx: increase timeouts in *sgs* USB subdriver Apparently the previously used timeouts in the *sgs* USB subdriver were not always enough, so increase them.

**2.1619 2015-11-11 Daniele Pezzini <hyouko@gmail.com>**

- data/driver.list.in: HCL: various TS Shara UPSes supported by nutdrv\_qx Protocol: *megatec* USB subdriver: *sgs*
- drivers/nutdrv\_qx.c: nutdrv\_qx: make sure *sgs* USB subdriver uses only what it reads Since, in *sgs* USB subdriver, we read only 8 bytes at a time and we expect the first byte to tell us the length of the data that follows, make sure we don't use more than what we read from the device in case the first byte is not what we expect it to be.

**2.1620 2015-11-10 Charles Lepple <clepple+nut@gmail.com>**

- data/driver.list.in: HCL: Electrys UPS 2500 (nutdrv\_qx and blazer\_ser) Closes <https://github.com/networkupstools/nut/issues/241>
- data/driver.list.in: HCL: Eaton E Series DX UPS 1-20 kVA uses blazer\_ser Closes <https://github.com/networkupstools/nut/issues/238>

**2.1621 2015-11-09 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/eaton-mib.c: snmp-ups: add number of outlets in Eaton ePDU groups
- docs/nut-names.txt: Add a variable for the number of outlets in a group Added *outlet.group.n.count* which provides the number of outlets in the outlet group *n*

**2.1622 2015-11-06 Daniele Pezzini <hyouko@gmail.com>**

- drivers/nutdrv\_qx\_voltronic-qs.c: nutdrv\_qx: update *voltronic-qs* subdriver Since, for devices supported by *voltronic-qs* subdriver, in reality: - invalid commands or queries are echoed back, - accepted commands are followed by action without any further reply, update the subdriver interface accordingly. Also: - change slightly the way we publish protocol as ups.firmware.aux, - update F's reply examples and some info\_type (ratings; output.frequency) in QX to NUT table to reflect reality, - increase version number.

**2.1623 2015-10-19 Daniele Pezzini <hyouko@gmail.com>**

- drivers/nutdrv\_qx\_voltronic-qs-hex.c: nutdrv\_qx: improve *T* protocol support in *voltronic-qs-hex* subdriver Since the last byte of the reply to the QS query (before the trailing CR) of devices that implement the *T* protocol holds in reality ratings informations (nominal output frequency/voltage and nominal battery voltage) in its bits, change the *voltronic-qs-hex* subdriver accordingly. Also: - change slightly the way we publish protocol as ups.firmware.aux, - increase version number.
- drivers/nutdrv\_qx\_voltronic-qs-hex.c: nutdrv\_qx: simplify {in,out}put voltage conversion in *voltronic-qs-hex* In *voltronic-qs-hex* subdriver, instead of calculating separately the fractional and integer part of input and output voltage, do it at once. Also, increase version number.
- drivers/nutdrv\_qx\_voltronic-qs-hex.c: nutdrv\_qx: improve protocol identification in *voltronic-qs-hex* Since *V* protocol, in reality, never happens to use the encoded version of the reply to the QS query, but it always uses the plain version already implemented in *voltronic-qs* subdriver, remove it from the identification process of *voltronic-qs-hex* subdriver. Also, remove some non-significant entries from the testing table and increase version number.
- drivers/nutdrv\_qx\_voltronic-qs-hex.c: nutdrv\_qx: harmonize declarations/definitions in *voltronic-qs-hex* In *voltronic-qs-hex* subdriver, the scope of support functions is limited to the subdriver as rightly stated in forward declarations, so correct their definitions to reflect that. Also, increase version number.

**2.1624 2015-10-09 Arnaud Quette <arnaud.quette@free.fr>**

- docs/nut-qa.txt: Reference Black Duck OpenHUB in QA documentation Closes [nut#192](#)

**2.1625 2015-10-08 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/snmp-ups.c: snmp-ups: also use *func* for additional traces
- drivers/powerware-mib.c: powerware-mib: more comments for RFC device.event Add more comments on the need to RFC device.event for some data that are currently published under ups.alarm
- drivers/powerware-mib.c: snmp-ups: improve Eaton 3-phase UPS alarms reporting Eaton 3phase UPS, using the Powerware MIB, can expose many new alarms. Also use the standard driver "X.YY" versioning, and bump subdriver release to "0.85"
- drivers/snmp-ups.c, drivers/snmp-ups.h: snmp-ups: fix and improve the ups.alarms mechanism This mechanism allows to walk a subtree (array) of alarms, composed of OID references. The object referenced should not be accessible, but rather when present, this means that the alarm condition is TRUE. Both ups.status and/or ups.alarm values can be provided
- drivers/snmp-ups.c: snmp-ups: fix on some snprintf calls Some snprintf calls are using dynamically allocated variables, which doesn't work with sizeof
- drivers/snmp-ups.c: snmp-ups: use *func* in debug messages
- drivers/snmp-ups.c: snmp-ups: nut\_snmp\_get\_oid() returns TRUE on success
- drivers/snmp-ups.c: snmp-ups: only use snprintf calls instead of sprintf
- drivers/eaton-mib.c, drivers/snmp-ups.c: snmp-ups: simplify handling of other alarms outlet, outlet groups and phase alarms are now using a simplified approach that does not require specific lookup structure to adapt alarm messages. This applies to Eaton ePDU G2/G3

**2.1626 2015-10-06 Daniele Pezzini <hyouko@gmail.com>**

- data/driver.list.in: HCL: LYONN CTB-800V supported by nutdrv\_qx Protocol: *voltronic-qs-hex* Reference: <https://github.com/networkupstools/nut/pull/230>

**2.1627 2015-10-06 Charles Lepple <clepple+nut@gmail.com>**

- data/driver.list.in: HCL: Asium P700, Micropower LCD 1000 and Eaton 5E1100iUSB
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**2.1628 2015-09-28 Arnaud Quette <arnaud.quette@free.fr>**

- docs/new-drivers.txt: Fix spacing error

**2.1629 2015-09-22 Charles Lepple <clepple+nut@gmail.com>**

- drivers/solis.c, drivers/solis.h: solis: remove additional warnings The "Waiting" flag is always zero, and several other variables were not used.
- drivers/solis.c, drivers/solis.h: solis: clean up warnings Comment out unused constants, and add *static* and *const* wherever possible.

**2.1630 2015-09-22 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/snmp-ups.c: snmp-ups: fix a typo error in debug message Unknown is spelled with an ending N (reported by Evgeny "Jim" Klimov, from Eaton)
- drivers/snmp-ups.c: snmp-ups: optimize phase number extraction efficiency Since we know that we are processing an alarm for a phase "Lx", don't use strchr, but simply index (reported by Evgeny "Jim" Klimov, from Eaton)
- docs/nut-names.txt, drivers/eaton-mib.c: snmp-ups: use dash-separator for out-of-range For the sake of coherence with other status relative to thresholds, "out of range" frequency status now also use dash as separator, instead of space
- drivers/eaton-mib.c: Fix a spelling error in comments
- drivers/eaton-mib.c: snmp-ups: fix a typo error on Eaton ePDU G2/G3 MIB Critical is really spelled critical, and not cricital, as used in the various status thresholds value-lookup structures (reported by Evgeny "Jim" Klimov, from Eaton)
- data/cmdvartab: Mention the unit for ambient humidity information Add an explicit mention that ambient information related to humidity use the "(percent)" unit
- data/cmdvartab, docs/nut-names.txt: Mention the unit for input voltage information Add an explicit mention that input information related to voltage use the "Volts (V)" unit
- data/cmdvartab: Mention the unit for ambient temperature information Add an explicit mention that ambient information related to temperature use the "degrees C" unit

**2.1631 2015-09-20 Charles Lepple <clepple+nut@gmail.com>**

- drivers/Makefile.am, drivers/solis.c: solis: math fixes As mentioned here: <https://github.com/networkupstools/nut/pull/235>

**2.1632 2015-09-19 bsalvador <bruno.salvador@gmail.com>**

- drivers/solis.c, drivers/solis.h: solis: patch for Microsol Back-Ups BZ1200-BR patch for correct reading for Microsol Back-Ups BZ1200-BR (rebased onto solis\_debug branch, and cleaned up whitespace. — CFL) Closes <https://github.com/networkupstools/nut/pull/235> and Closes <https://github.com/networkupstools/nut/pull/236>

**2.1633 2015-09-18 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/eaton-mib.c: snmp-ups: add outlet group identifier for Eaton ePDU Eaton ePDU can now publish the parent group of each outlet
  - docs/nut-names.txt: Extend outlet collection namespace with group ID An outlet can now publish the group to which it belongs to
-

- drivers/snmp-ups.c: snmp-ups: complete nut\_snmp\_get\_{str,int} These methods now allow to get the value of an OID returned by the source OID (as for the sysOID). In case of failure (non existent OID), the functions return the last part of the returned OID (ex: 1.2.3  $\Rightarrow$  3)
- drivers/snmp-ups.c: snmp-ups: create a nut\_snmp\_get\_oid() function This method allows to get the value of an OID which is also an OID (as for the sysOID), without trying to get the value of the pointed OID. This will allow to use nut\_snmp\_get\_{int,str}() the get the value of the pointed OID

#### 2.1634 2015-09-17 Arnaud Quette <arnaud.quette@free.fr>

- drivers/eaton-mib.c: snmp-ups: outlet groups type handling for Eaton ePDU Eaton ePDU can now publish the type of outlet group
- docs/nut-names.txt: Extend outlet group collection namespace with type The type of outlet group can now be published, part of the new outlet.group data collection
- drivers/eaton-mib.c: snmp-ups: outlet groups commands for Eaton ePDU Eaton ePDU can now handle commands outlet groups, including on, off and reboot (cycle)
- drivers/snmp-ups.c: snmp-ups: fix commands handling for outlet groups The su\_instcmd() function of snmp-ups is now adapted to support outlet groups
- drivers/eaton-mib.c: Advanced outlets groups alarm handling for Eaton ePDU Eaton ePDU can now handle alarms on outlets groups, for voltage and current, relative to the configured thresholds
- drivers/snmp-ups.c: snmp-ups: improvements for outlet groups and alarms Improve the code for general template management, including outlets and outlets groups for now, and add alarm management for outlet groups, the same way as for outlets

#### 2.1635 2015-09-16 Arnaud Quette <arnaud.quette@free.fr>

- drivers/snmp-ups.c: snmp-ups: fix set variable for outlet groups The setvar() function of snmp-ups is now adapted to support outlet groups
- drivers/eaton-mib.c: snmp-ups: outlet groups handling for Eaton ePDU Eaton ePDU can now handle outlet groups, including voltage and current (with thresholds and status relative to the configured thresholds), along with power and realpower. A subsequent commit will address the alarms, settings and commands. Bump subdriver version to 0.30
- drivers/snmp-ups.c: snmp-ups: update debug message The template guestimation function name was changed, but the debug message was left with the old function name
- data/driver.list.in, docs/man/snmp-ups.txt, drivers/powerware-mib.c, drivers/powerware-mib.h, drivers/snmp-ups.c: snmp-ups: add Eaton Power Xpert Gateway UPS Card This newer generation of SNMP card is used for BladeUPS or other UPS, and is serving the same XUPS MIB, as in the "pw" subdriver
- scripts/subdriver/gen-snmp-subdriver.sh: Update SNMP subdriver generation script Complete the documentation, by adding some notes and examples ; Fix the MIBs directories list and the "keep temporary files" option

#### 2.1636 2015-09-15 Arnaud Quette <arnaud.quette@free.fr>

- docs/nut-names.txt: Extend NUT namespace with outlet.group collection A new data collection, called "outlet.group", is now available. It provides grouped management for a set of outlets. The same principles and data than the outlet collection apply to outlet.group
- drivers/snmp-ups.c, drivers/snmp-ups.h: snmp-ups: adapt template mechanisms for outlet groups The template handling mechanisms, originally created for outlets, is now adapted to also manage outlet groups

#### 2.1637 2015-09-14 root <root@arno-zbook15.euro.ad.etn.com>

- docs/nut-names.txt: Add a note on the outlet.count variable

**2.1638 2015-09-14 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/eaton-mib.c: snmp-ups: add nominal input current for Eaton ePDU snmp-ups now provides input.[Lx.]current.nominal for Eaton ePDU G2/G3, both for 1phase and 3phase
- drivers/eaton-mib.c: snmp-ups: better input.power handling for Eaton ePDUs Improve the way we declare and process input.power, as previously done for input.realpower, in order to address the variations between Eaton ePDUs G2 and G3

**2.1639 2015-09-11 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/eaton-mib.c: snmp-ups: publish part number for Eaton ePDU device.part was standardized in NUT namespace, so enable the declaration for Eaton ePDU
- drivers/eaton-mib.c: snmp-ups: 3-phase alarm handling for Eaton ePDU Eaton ePDU can now handle alarms on 3-phase, currently limited to voltage and current, relative to the configured thresholds
- drivers/snmp-ups.c: snmp-ups: implement 3-phase alarm handling snmp-ups now allows to publish 3-phase alarms in ups.alarm, the same way as with outlet. Declaration of such alarms are done using "Lx.alarm". info\_lkp\_t structures messages are shared templates with outlets, and use the string formats to include the context (outlet or phase) and the number (of the outlet or phase) in alarm messages. These alarms are then published in "ups.alarm", with the standard mechanism for alarm publication
- docs/nut-names.txt: Extend 3-phase collection namespace with alarms 3-phase data collection now allows to specify alarms, the same way than with the outlet collection ("outlet.n.alarm"), but using "Lx.alarm" (for example "L1.alarm"). These alarms are then published in "ups.alarm", with the standard mechanism for alarm publication
- drivers/eaton-mib.c: Advanced threshold handling for Eaton 3-phase ePDU Eaton ePDU can now handle warning and critical thresholds settings and status for input voltage and current on 3-phase units. Alarms are however still to be implement
- docs/nut-names.txt: Extend 3-phase collection namespace with threshold 3-phase data collection now allows to specify low / high warning and critical thresholds for voltage and current. Status relative to the thresholds also exist for these data
- drivers/snmp-ups.c: Improve log/debug output trace

**2.1640 2015-09-08 Charles Lepple <clepple+nut@gmail.com>**

- drivers/solis.c: solis: resync with end-of-packet character (0.64) Suggested by @rpvelloso in <https://github.com/networkupstools/nut/issues/231#issuecomment-134795747> Note that the driver could possibly get out-of-sync after initial detection.

**2.1641 2015-09-07 Charles Lepple <clepple+nut@gmail.com>**

- docs/man/macosex-ups.txt, drivers/macosex-ups.c: macosex-ups: gracefully handle disconnection of UPS Tested on 10.9.5 and 10.10.5. Returns "data stale" when UPS disappears.

**2.1642 2015-09-07 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/snmp-ups.c, drivers/snmp-ups.h: snmp-ups: fix loss of precision when setting values su\_setvar() was losing precision when converting and casting the provided values to send to the SNMP agent. As an example, with an OID in millivolt (multiplier set to 0.001), when providing 238 (V) using upsrw, the value sent to the SNMP agent was 237999, so leaking 0.1 volt
- drivers/powerware-mib.c: Bump Powerware SNMP subdriver version

**2.1643 2015-09-04 Charles Lepple <clepple+nut@gmail.com>**

- Makefile.am, docs/configure.txt, docs/new-clients.txt, tools/nut-scanner/README: doc: correct remaining --with-lib references Credit: Paul Vermeer



**2.1644 2015-09-04 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/dstate.c: Extend ups.alarm internal buffer to 1024 chars Currently, ups.alarm can hold up to 256 chars to expose alarms. With the recent outlet alarms handling addition, the buffer may quickly be too small. Thus, increase to 1024, which may still not be sufficient but already provides a bit more room
- drivers/eaton-mib.c: snmp-ups: outlet alarm handling for Eaton ePDU Eaton ePDU can now handle alarms on outlets, currently limited to outlet voltage and current, relative to the configured thresholds
- drivers/snmp-ups.c: snmp-ups: implement outlets / PDU alarm handling snmp-ups now allows to publish outlets and PDU alarms in ups.alarm, the same way as with ups.status. Declaration of such alarms are done using the outlet template mechanism ("outlet.%i.alarm"). info\_lkp\_t structures messages can also use the string formats to include the outlet number in alarm messages. These alarms are then published in "ups.alarm", with the standard mechanism for alarm publication
- docs/nut-names.txt: Extend outlet collection namespace with alarms Outlet data collection now allows to specify alarms, using the template definitions ("outlet.n.alarm"). These alarms are then published in "ups.alarm", with the standard mechanism for alarm publication

**2.1645 2015-09-02 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/eaton-mib.c: snmp-ups: outlet threshold handling for Eaton ePDU Eaton ePDU can now handle warning and critical thresholds settings and status for outlet voltage and current
- docs/nut-names.txt: Extend outlet collection namespace with threshold Outlet data collection now allows to specify low / high warning and critical thresholds for voltage and current. Status relative to the thresholds also exist for these data

**2.1646 2015-09-01 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/eaton-mib.c: snmp-ups: alarms handling for Eaton ePDU Eaton ePDU can now publish alarms, related to input status (voltage, frequency and current) and ambient status (temperature and humidity). Note that alarms are still published under ups.alarms, though these should belong to either pdu.alarms or better device.alarms
- drivers/eaton-mib.c: Advanced input threshold handling for Eaton ePDU Eaton ePDU can now handle warning and critical thresholds settings and status for input voltage and current, along with the frequency status
- data/cmdvartab, docs/nut-names.txt: Extend input collection namespace with threshold Input data collection now allows to specify low / high warning and critical thresholds for voltage and current. Status relative to the thresholds also exist for these data, and for the frequency
- drivers/snmp-ups.h: Minor updates to TODO comments
- drivers/snmp-ups.c: Implement ups.alarm for SNMP snmp-ups now allows to publish alarms in ups.alarm, the same way as with ups.status

**2.1647 2015-08-31 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/eaton-mib.c: snmp-ups: ambient dry contacts support for Eaton ePDU Eaton ambient modules, connected on ePDU, now publish the status of the connected dry contacts sensors
  - data/cmdvartab, docs/nut-names.txt: Extend ambient collection namespace with dry contacts Ambient data collection now allow to specify dry contacts sensor status
  - drivers/eaton-mib.c: snmp-ups: fix Eaton Pulizzi Switched PDU multiplier As per the previous commit, to well handle integer RW variables
  - drivers/eaton-mib.c: snmp-ups: ambient threshold handling for Eaton ePDU Eaton ePDU can now handle warning and critical thresholds and status for both humidity and temperature
-



- data/cmdvartab, docs/nut-names.txt: Extend ambient collection namespace with threshold Ambient data collection now allow to specify warning and critical thresholds
- drivers/eaton-mib.c: snmp-ups: publish presence of Eaton ambient sensor Publish the actual presence of ambient sensor for Eaton ePDU G2 and G3
- data/cmdvartab, docs/nut-names.txt: Publish the actual presence of an ambient sensor A new data was created (ambient.present) to publish the actual presence of an ambient sensor
- drivers/snmp-ups.c: Proper handling of integer RW variables RW variables were previously supposed to always be strings. Thus, the multiplier (using the info\_len field) was not applied. Also allow setting float values, not only integer
- drivers/snmp-ups.c, drivers/snmp-ups.h: Fix default SNMP retries and timeout The previous patch was using the default values from Net-SNMP, which are set to -1. When the user was not providing overridden values, this was causing the driver to not be able to establish the communication with the device. The default values are now fixed, as per documented (i.e. 5 retries and timeout of 1 second). Also bump the driver version to 0.74
- docs/man/ups.conf.txt, drivers/dstate.c: Make more obvious the socket write failure Document the error that require the use of the *synchronous* flag. Also use debug level 1 instead of 2 for the debug message

## 2.1648 2015-08-25 Daniele Pezzini <hyouko@gmail.com>

- README.adoc, docs/asciidoc.conf, docs/man/asciidoc.conf: docs: add *linkman2* AsciiDoc macro Add a new *linkman2* AsciiDoc macro to support different names for the manpage and the command shown. This is also needed to properly display links to manpages in both GitHub and generated docs without defining an attribute for each manpage. Reference: <https://github.com/networkupstools/nut/pull/226>

## 2.1649 2015-08-24 Daniele Pezzini <hyouko@gmail.com>

- README.adoc, docs/asciidoc.conf: docs: add *linksingledoc* AsciiDoc macro Add a new *linksingledoc* AsciiDoc macro which guarantees that, when chunked HTML is generated, the link always points to a non-chunked file.
- README.adoc: Update some URLs and make them clickable
- docs/asciidoc.conf: Make AsciiDoc xref macros work properly in DocBook-generated docs AsciiDoc ↵ ~8.6.9 tests the wrong attribute and, as a consequence of that, it produces both <link> and <xref>. To workaround this issue, implement the xref macro by ourselves.
- README.adoc: Remove a couple of end-of-line spaces
- README.adoc, docs/chunked.xml, docs/download.txt, docs/support.txt: Make cross references work in both GitHub and generated docs Substitute the shorthand << >> syntax with attributes that conditionally expand to: - links on GitHub (references can point at most to a section of level docs/common.xml's <chunk.section.depth>), - xref macros when generating docs. In order to achieve the result, *chunked* docs get now their pages named after IDs. So, update all the links that use the old auto-generated names. Reference: <https://github.com/networkupstools/nut/pull/226>
- README.adoc: Make links to docs/manpages work in both GitHub and generated docs Since GitHub doesn't allow custom macros, only use ours when generating docs, replacing their occurrences with attributes that produce links when on GitHub. This approach should work properly as long as we use them in contexts where attributes are evaluated and substituted before macros. Also, use a common attribute that points to the URL of the website. Reference: <https://github.com/networkupstools/nut/pull/226>
- README.adoc: Make nutdrv\_qx the *generic device driver* for Q\* protocols As the link was still pointing to the old -no longer generated- *blazer* manpage, take the chance to reword the paragraph so that it points to the new nutdrv\_qx driver.

## 2.1650 2015-08-23 Charles Lepple <clepple+nut@gmail.com>

- drivers/solis.c: solis: Add upsdebug\*() and upslogx() calls for diagnostics

**2.1651 2015-08-22 Mariano <marianojan@users.noreply.github.com>**

- drivers/nutdrv\_qx\_voltronic-qs-hex.c: nutdrv\_qx: add support for LYONN CTB-800V Small protocol validation change in *voltronic-qs-hex* subdriver to add support for the protocol used by the LYONN CTB-800V UPS.

**2.1652 2015-08-18 Kenny Root <kenny@the-b.org>**

- drivers/powerware-mib.c: Add ups.start.auto for Powerware SNMP Use the IETF UPS MIB to indicate to Powerware devices that it should restart when mains power is applied.
- drivers/powerware-mib.c: Fix some indentation problems in PowerWare SNMP
- drivers/powerware-mib.c: Add shutdown.return for Powerware SNMP The Powerware MIB supports the concept of shutting down with a delay and then returning when line power is restored. The delay is set to 0 seconds currently.
- drivers/powerware-mib.c: Add load.{off,on}.delay for Powerware SNMP The commands to shut down with delay have existed since the first version of the Powerware MIB so add the newer commands "load.off.delay" and "load.on.delay" to aid in shutdown scripts.

**2.1653 2015-08-07 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/dummy-ups.c, drivers/dummy-ups.h: Fix dummy-ups for external value changes dummy-ups allow to change the values of the published variables through the standard upsw tool. This method is handy to script value changes, in a controlled way, compared to the dynamic version (using the TIMER keyword in .dev files), which changes the values in a non controlled way. Bump driver version to 0.14
- m4/nut\_check\_libnss.m4: Fully check for a working Mozilla NSS Rework the NSS tests so that just having runtime libraries installed is not enough. Moreover, since GNU libc6 also provides a nss.h header, the test now checks for both nss.h and ssl.h Closes [nut#184](#)
- docs/download.txt: Fix Red Hat / Fedora packages repository URL

**2.1654 2015-08-06 Charles Lepple <clepple+nut@gmail.com>**

- README.adoc: Remove some old compatibility information from the README
- Makefile.am, README ⇒ README.adoc, configure.ac, docs/Makefile.am, docs/user-manual.txt: Rename README with extension for AsciiDoc and update references to it Also: - add *foreign* to AM\_INIT\_AUTOMAKE macro so that automake doesn't fail as a consequence of the lack of a *README* file (since we now have *README.adoc*); - make sure README.adoc is distributed.
- README.adoc: Remove some old compatibility information from the README
- README ⇒ README.adoc: Rename README with extension for AsciiDoc

**2.1655 2015-08-04 Arnaud Quette <arnaud.quette@free.fr>**

- tools/nut-scanner/scan\_snmp.c: Fix a crash on a 2nd call to libnutscan on behalf of Tomas Halman, from Eaton Opensource Team

**2.1656 2015-08-03 Tomas Halman <TomasHalman@eaton.com>**

- clients/nutclient.cpp: Problem: nutclient library sometimes reads socket closed by server. Solution: proper read return value evaluation
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**2.1657 2015-07-27 Daniele Pezzini <hyouko@gmail.com>**

- common/common.c, common/str.c, drivers/bcmxcp.c, drivers/blazer.c, drivers/blazer\_ser.c, drivers/blazer\_usb.c, drivers/libhid.c, drivers/mge-xml.c, drivers/nutdrv\_qx.c, drivers/powerp-bin.c, drivers/powerp-txt.c, drivers/powerpanel.c, drivers/tripplitesu.c, drivers/upscod2.c, include/common.h, include/str.h, server/upsd.c, tools/nut-scanner/scan\_usb.c: common: consolidate some string-related functions Move **trim()** functions from common to str. Prepend the *str\_* common prefix. Bailout early if string is NULL or empty. In *\*trim\_m()* functions, make sure the string containing characters to be removed is not NULL and bailout early if empty. Add new *str\_trim[\_m]()* functions to remove both leading and trailing characters at the same time. Update all the tree accordingly; versioning where appropriate.
- common/Makefile.am, common/str.c, include/Makefile.am, include/common.h, include/str.h: common: add some string-related functions

**2.1658 2015-07-24 Tim Smith <tsmith84@gmail.com>**

- INSTALL.nut: Spelling fixes Spelling fixes and capitalization of SUSE

**2.1659 2015-07-24 Nash Kaminski <nashkaminski@gmail.com>**

- drivers/tripplitesu.c: tripplitesu: Fix initialization when tripplite firmware is buggy With some Tripplite SU1000RT2U (and possibly more) UPS's, a firmware bug causes a malformed response to the very first command that is sent after the serial port is opened following a warm or cold boot of the system. My theory is that this related to either the RS232 data lines or handshaking lines being pulled high once the server's UART is powered however I have not determined precisely if this is related to the data line being pulled high or the handshaking lines being asserted. However, I have been able to consistently reproduce the issue where the driver fails to start on the first attempt after a cold/warm boot across 3 different machines and 2 SU1000RT2U UPS's. To workaround this, the initial enumeration is repeated a 2nd time after 300ms(to allow all garbage data to arrive) if the first attempt fails, which allows the driver to consistently startup successfully on the 1st attempt. Closes [nut#220](#)

**2.1660 2015-07-23 Arnaud Quette <arnaud.quette@free.fr>**

- scripts/augeas/nutupsconf.aug.tpl: Update Augeas lens for ups.conf Add the various missing global directives and ups fields

**2.1661 2015-07-20 Daniele Pezzini <hyouko@gmail.com>**

- data/driver.list.in: HCL: fix case and spacing

**2.1662 2015-07-18 Daniele Pezzini <hyouko@gmail.com>**

- drivers/nutdrv\_qx.c: nutdrv\_qx: when targeting *UPS No Ack* consider also the trailing CR In *fabula* and *krauler* USB sub-drivers, take into account also the trailing CR in the reply while looking for a *UPS No Ack*.
- drivers/nutdrv\_qx.c: nutdrv\_qx: stay true to return code in *fabula* USB subdriver In *fabula* USB subdriver, when reading *UPS No Ack* from device, since we already mimic a timeout, also empty the reply.

**2.1663 2015-07-11 Charles Lepple <clepple+nut@gmail.com>**

- data/driver.list.in: HCL: Fideltronic INIGO Viper 1200 supported by nutdrv\_qx

**2.1664 2015-07-02 Charles Lepple <clepple+nut@gmail.com>**

- drivers/usbhid-ups.c: usbhid-ups: bump version to 0.41 Both the *eaton\_dual\_reportdesc* and *usbhid\_ups\_input\_vs\_feature* branches claimed version 0.40, so let's disambiguate the merged version.
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**2.1665 2015-07-02 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/libhid.c: Add a debug trace for the number of HID objects found
- drivers/hidtypes.h: Fix testing typo MAX\_REPORT is really 500 (HID objects), not 50!
- drivers/hidparser.c: Report when there are further unprocessed HID objects Following the last commits, and especially the MAX\_REPORT one, warn whenever there are remaining HID objects that were not processed. This may serve
- drivers/hidtypes.h: Increase the maximum number of HID objects The previous value (300) was causing a trim of the remaining objects. Increase the value to 500, which should give a bit of time
- drivers/libshut.c, drivers/libshut.h, drivers/libusb.c, drivers/usb-common.h, drivers/usbhid-ups.c: Add support for Eaton dual HID report descriptor All devices use HID descriptor at index 0. However, some newer Eaton units have a light HID descriptor at index 0, and the full version is at index 1 (in which case, bcdDevice == 0x0202). This dual report descriptor approach is due to the fact that the main report descriptor is now too heavy, and cause some BIOS to hang. A light version is thus provided at the default index, solving this BIOS issues

**2.1666 2015-06-27 Charles Lepple <clepple+nut@gmail.com>**

- drivers/macosx-ups.c: macosx-ups: fix for 10.10 (Yosemite); v1.1 In OS X 10.9 and earlier, IOPSGetPowerSourcesInfo() returned a CFDictionary. In 10.10 it returns a CFArray. Programmers are supposed to use IOPSGetPowerSourceDescription() to gloss over this distinction. However, this does not make it easy to distinguish between a laptop battery and an UPS. So the "port" driver option no longer has any effect. [https://developer.apple.com/library/mac/documentation/IOKit/Reference/IOPowerSources\\_header\\_reference/#!/apple\\_ref/c/func/IOPSGetPowerSourceDescription](https://developer.apple.com/library/mac/documentation/IOKit/Reference/IOPowerSources_header_reference/#!/apple_ref/c/func/IOPSGetPowerSourceDescription)

**2.1667 2015-06-22 Arnaud Quette <arnaud.quette@free.fr>**

- scripts/upower/95-upower-hid.rules, tools/nut-usbinfo.pl: Update UPower HID rules and generator

**2.1668 2015-06-11 Charles Lepple <clepple+nut@gmail.com>**

- drivers/usbhid-ups.c: usbhid-ups.c: fall back to HID Input type if not a Feature

**2.1669 2015-06-07 Charles Lepple <clepple+nut@gmail.com>**

- drivers/triplite-hid.c: triplite-hid.c: device.part is static (version 0.82)

**2.1670 2015-06-04 Daniele Pezzini <hyouko@gmail.com>**

- drivers/nutdrv\_qx.c: nutdrv\_qx: make sure processed item's boundaries are not wrong
- docs/nutdrv\_qx-subdrivers.txt, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx.h: nutdrv\_qx: remove redundant comments and update docs

**2.1671 2015-06-01 Arnaud Quette <arnaud.quette@free.fr>**

- docs/man/snmp-ups.txt, drivers/snmp-ups.c, drivers/snmp-ups.h: Provide access to Net-SNMP timeout and retries Two new extra arguments are now available to allow overriding Net-SNMP number of retries (snmp\_retries) and timeout per retry (snmp\_timeout). These respectively maps to snmpcmd "-r retries" and "-t timeout"
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**2.1672 2015-05-29 Arnaud Quette <arnaud.quette@free.fr>**

- scripts/upower/95-upower-hid.rules: Update UPower HID rules
- tools/nut-usbinfo.pl: Fix UPower device matching for recent kernels As per the UPower patch below referenced, hiddev\* devices now have class "usbmisc", rather than "usb". See <http://cgit.freedesktop.org/upower/commit/rules/95-upower-hid.rules?id=9f310>

**2.1673 2015-05-28 Arnaud Quette <arnaud.quette@free.fr>**

- tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-device.c, tools/nut-scanner/nutscan-device.h, tools/nut-scanner/nutscan-display.c, tools/nut-scanner/nutscan-init.c, tools/nut-scanner/nutscan-init.h, tools/nut-scanner/nutscan-ip.c, tools/nut-scanner/nutscan-ip.h, tools/nut-scanner/nutscan-serial.c, tools/nut-scanner/nutscan-serial.h, tools/nut-scanner/scan\_avahi.c, tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_usb.c, tools/nut-scanner/scan\_xml\_http.c: Fix legal information on source-code headers Copyright and author were not mentioned as it should be. Most of the nut-scanner copyright belongs to EATON, apart from few parts. Files descriptions are now also in Doxygen format

**2.1674 2015-05-18 Daniele Pezzini <hyouko@gmail.com>**

- docs/nutdrv\_qx-subdrivers.txt, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx.h, drivers/nutdrv\_qx\_bestups.c, drivers/nutdrv\_qx\_mecer.c, drivers/nutdrv\_qx\_megatec-old.c, drivers/nutdrv\_qx\_megatec.c, drivers/nutdrv\_qx\_mustek.c, drivers/nutdrv\_qx\_q1.c, drivers/nutdrv\_qx\_qs-hex.c, drivers/nutdrv\_qx\_voltronic-qs.c, drivers/nutdrv\_qx\_voltronic.c, drivers/nutdrv\_qx\_zinto.c: nutdrv\_qx: give subdrivers a last chance to process the command Add (and document) a new function (*preprocess\_command()*) to preprocess the command to be sent to the device, just before the actual sending and, in case of instant commands/setvars, after the *preprocess()* function has been triggered (if appropriate). As an example, this function can be useful to add to all commands (both queries and instant commands/setvars) a CRC or to fill the command of a query with some data. Also, in *qx\_process()*, address buf size vs item→answer size earlier. Update all subdrivers accordingly, bump versions.
- docs/nutdrv\_qx-subdrivers.txt, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx.h, drivers/nutdrv\_qx\_bestups.c, drivers/nutdrv\_qx\_blazer-common.c, drivers/nutdrv\_qx\_blazer-common.h, drivers/nutdrv\_qx\_mecer.c, drivers/nutdrv\_qx\_megatec-old.c, drivers/nutdrv\_qx\_mustek.c, drivers/nutdrv\_qx\_q1.c, drivers/nutdrv\_qx\_voltronic-qs-hex.c, drivers/nutdrv\_qx\_voltronic-qs.c, drivers/nutdrv\_qx\_voltronic.c, drivers/nutdrv\_qx\_zinto.c: nutdrv\_qx: make preprocessed value's size\_t a const There's no need to intervene on the passed-to-the-function value of a preprocessed value's size\_t, so clarify it is a const. Update all subdrivers accordingly, bump versions.
- drivers/nutdrv\_qx.c: nutdrv\_qx: make sure an answer is not reused if *preprocess\_answer()* fails If an item's *preprocess\_answer()* function fails, the answer should not be considered valid and inherited by the following items with the same command. Therefore, on failure, clear the answer so that the following items are forced to query the device and preprocess the answer anew, if appropriate.

**2.1675 2015-05-13 Arnaud Quette <arnaud.quette@free.fr>**

- docs/download.txt: Update NUT packages for Windows to 2.6.5-6

**2.1676 2015-05-07 Arnaud Quette <arnaud.quette@free.fr>**

- scripts/systemd/nut-server.service.in: Restore systemd relationship with nut-driver service The Requires directive from nut-server to nut-driver was previously removed, since it was preventing upsd from starting whenever one or more drivers, among several, was failing to start. Use the Wants directive, a weaker version of Requires, which will start upsd even if the nut-driver unit fails to start. closes <https://github.com/networkupstools/nut/issues/200>

**2.1677 2015-04-28 Nick Mayerhofer <[nick.mayerhofer@enchant.at](mailto:nick.mayerhofer@enchant.at)>**

- drivers/nutdrv\_qx\_voltronic.c: nutdrv\_qx: move var declaration in *voltronic* subdriver Move variable declaration to fulfill condition 3.3. *Portability* of the developer guide. Bump version.
- drivers/libhid.c: libhid: replace "flush loop" with memset Move to the C way of setting memory (memset), replacing a for loop with a few anti-patterns in it: - for (...) ; i++) - for (...) ; i < MAGIC\_NUMBER; ... - for (...) array[i] = 0

**2.1678 2015-04-26 Nick Mayerhofer <[nick.mayerhofer@enchant.at](mailto:nick.mayerhofer@enchant.at)>**

- docs/nutdrv\_qx-subdrivers.txt, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx.h: nutdrv\_qx: improve documentation for some methods

**2.1679 2015-04-23 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- Makefile.am: Cleanup GPG signature before generation

**2.1680 2015-04-22 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- configure.ac: bump version back to 2.7.3.1
- configure.ac: Restore version 2.7.3 for release
- docs/security.txt: Missing link reference update The filename of the previous GPG release key was not updated, leading to pointing to the current release key

**2.1681 2015-04-16 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- configure.ac: bump version to 2.7.3.1

**2.1682 2015-04-15 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- configure.ac: update version to 2.7.3
- docs/security.txt: Update release signature verification The release manager key has change. Update the documentation to reflect it, along with keeping necessary for checking the previous releases
- docs/download.txt: Fix formatting issue
- NEWS, UPGRADING: Final update for release 2.7.3 Complete the release information for NUT 2.7.3
- docs/maintainer-guide.txt: Store some comments for latter processing

**2.1683 2015-04-10 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- drivers/mge-hid.c: Improve Eaton ABM support for USB/HID units As per clarifications from David G. Miller (Eaton ABM expert) and customers request, when ABM is enabled, we now both publish the following as per the ABM information: - the 5 status bits {charging, discharging, floating, resting, off} under battery.charger.status - the 2 historical status bits {CHRG, DISCHRG} under ups.status When ABM is disabled, we just publish the 2 historical status bits {CHRG, DISCHRG} under ups.status, as per UPS.PowerSummary.PresentStatus.{Charging,Discharging}, as done previously

**2.1684 2015-04-08 Nick Mayerhofer <[nick.mayerhofer@enchant.at](mailto:nick.mayerhofer@enchant.at)>**

- docs/nutdrv\_qx-subdrivers.txt, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx.h: nutdrv\_qx: clarify docs/inline comments
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**2.1685 2015-04-07 Arnaud Quette <arnaud.quette@free.fr>**

- scripts/systemd/nut-server.service.in: Do not Require systemd nut-driver for nut-server Put the Requires=nut-driver.service in comment for nut-server systemd unit file. Thus we don't require drivers to be successfully started! This was a change of behavior compared to init SysV, and could prevent from accessing successfully started drivers, or at least to audit a system Closes: <https://github.com/networkupstools/nut/issues/200>

**2.1686 2015-04-04 Émilien Kia <emilien.kia@gmail.com>**

- server/upsd.c: Initialize SSL after daemonize and downgrade to user. Fix [issue #190](#) - upsd: NSS SSL only working in debug mode <https://github.com/networkupstools/nut/issues/190>

**2.1687 2015-04-04 Charles Lepple <clepple+nut@gmail.com>**

- UPGRADING: mention SSL permissions (#199)
- docs/security.txt: NSS SSL documentation Addresses new behavior as part of the NSS forking fix (#199). Formatting and wording fixed as well.

**2.1688 2015-04-02 Arnaud Quette <arnaud.quette@free.fr>**

- conf/ups.conf.sample, docs/man/ups.conf.txt, drivers/dstate.c, drivers/dstate.h, drivers/main.c: Improve synchronous driver flag implementation The previous commit was suffering a number of issues. The present commit fixes these, along with adding more documentation and a better and more understandable implementation code. Thanks to Daniele Pezzini for the thorough review Closes: <https://github.com/networkupstools/nut/issues/197>
- drivers/eaton-mib.c: Better input.realpower handling for Eaton ePDUs G2/G3 Improve the way we declare and process input.realpower, in order to address the variations between Eaton ePDUs G2 and G3

**2.1689 2015-04-01 Arnaud Quette <arnaud.quette@free.fr>**

- docs/man/ups.conf.txt, drivers/dstate.c, drivers/dstate.h, drivers/main.c: Implement synchronous driver flag As per [issue #197](#), NUT drivers work by default in asynchronous mode. This means that all data are pushed by the driver on the communication socket to upsd (Unix socket on Unix, Named pipe on Windows) without waiting for these data to be actually consumed. With some HW, such as ePDUs, that can produce a lot of data, asynchronous mode may cause some congestion, resulting in the socket to be full, and the driver to appear as not connected. By enabling the *synchronous* flag, the driver will wait for data to be consumed by upsd, prior to publishing more. This can be enabled either globally or per driver.
- drivers/eaton-mib.c: Workaround input.{power,realpower} for Eaton ePDUs Add variable declarations to handle missing input.{power,realpower} on Eaton ePDUs G2 and G3 1phase. On 3phase, these variables point at SNMP OIDs that sum up the 3 phases information. These OIDs should also be present on 1phase, however it's actually not the case. So simply duplicate the L1 declaration

**2.1690 2015-03-31 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/powerware-mib.c: Implement battery.charger.status for Eaton SNMP This new official variable now replaces the historic *vendor.specific.abmstatus*, as per other similar implementations (in usbhid-ups and bcmxcp drivers)

**2.1691 2015-03-27 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/mge-hid.c: Implement Eaton ABM support for USB/HID units Add support for Eaton Advanced Battery Monitoring, for USB/HID units. Information are provided through the new battery.charger.status. For now, at least, when ABM is enabled, the historic CHRГ and DISCHRG flags are not published anymore in ups.status
-

**2.1692 2015-03-26 Stuart Henderson <stu@spacehopper.org>**

- data/driver.list.in, docs/man/snmp-ups.txt, docs/snmp-subdrivers.txt, drivers/Makefile.am, drivers/huawei-mib.c, drivers/huawei-mib.h, drivers/snmp-ups.c: snmp-ups: new subdriver for Huawei "Hi, the [commit] below adds a new subdriver for snmp-ups to support Huawei UPS, based on an observed walk from a UPS5000-E with a few bits filled in from the MIBs (copy at [http://junkpile.org/HUAWEI\\_UPS\\_MIB/](http://junkpile.org/HUAWEI_UPS_MIB/))." [http://news.gmane.org/find-root.php?message\\_id=slrnmh6npf.tg7.stu%40naiad.spacehop](http://news.gmane.org/find-root.php?message_id=slrnmh6npf.tg7.stu%40naiad.spacehop)

**2.1693 2015-03-25 Daniele Pezzini <hyouko@gmail.com>**

- drivers/nutdrv\_qx\_voltronic.c: nutdrv\_qx: add support in *voltronic* subdriver for P13 protocol

**2.1694 2015-03-24 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/mge-hid.c: Complementary Energy Saving data for Eaton USB devices Add a 2nd HID path for battery.energysave.delay. Depending on the exact device model, different implementations may be used

**2.1695 2015-03-22 Daniele Pezzini <hyouko@gmail.com>**

- NEWS: nutdrv\_qx: update NEWS about new *fuji* USB subdriver

**2.1696 2015-03-21 Daniele Pezzini <hyouko@gmail.com>**

- drivers/nutdrv\_qx.c, drivers/nutdrv\_qx.h: nutdrv\_qx: typedef testing\_t only if TESTING is #defined First reported by GitHub user @nickma82
- docs/man/nutdrv\_qx.txt, docs/nutdrv\_qx-subdrivers.txt: nutdrv\_qx: document *voltronic-qs-hex* subdriver in man pages
- docs/man/nutdrv\_qx.txt, drivers/nutdrv\_qx\_bestups.c, drivers/nutdrv\_qx\_blazer-common.c, drivers/nutdrv\_qx\_blazer-common.h, drivers/nutdrv\_qx\_mecer.c, drivers/nutdrv\_qx\_megatec-old.c, drivers/nutdrv\_qx\_megatec.c, drivers/nutdrv\_qx\_mustek.c, drivers/nutdrv\_qx\_q1.c, drivers/nutdrv\_qx\_voltronic-qs-hex.c, drivers/nutdrv\_qx\_voltronic-qs.c, drivers/nutdrv\_qx\_zinto.c: nutdrv\_qx: add *ignoresab* flag to support bogus devices Some UPSes incorrectly report the *Shutdown Active* bit (7th bit of the *status* byte) as always on (=1), consequently making the driver believe the UPS is nearing a shutdown (and, as a result, ups.status always contains FSD). To workaround this issue, add a new *ignoresab* flag that makes the driver do just what its name tells (IGNORE Status Active Bit) skipping the relative item in qx2nut tables. References: - <http://lists.althoth.debian.org/pipermail/nut-upsdev/-2015-March/006896.html>  
- <https://github.com/networkupstools/nut/issues/195>

**2.1697 2015-03-19 Arnaud Quette <arnaud.quette@free.fr>**

- docs/nut-names.txt: Document new variables and commands addition The variables and commands that were added were not described in the NUT namespace document. These are: input.transfer.delay - battery.energysave.load - battery.energysave.delay - battery.charger.status - outlet.1.shutdown.return - outlet.2.shutdown.return
- drivers/bcmxcp.c: Fix the letter case of ABM and outlets status For more coherence with NUT status publication, these status are now lower case
- drivers/bcmxcp.c: Add missing Author
- data/cmdvartab, docs/nut-names.txt, drivers/mge-hid.c: Add more Energy Saving features for Eaton USB devices Add two new Energy Saving features: - battery.energysave.delay: to configure the delay before switching off the UPS if running on battery and load level low (in minutes) - battery.energysave.realpower: to switch off the UPS if running on battery and power consumption on UPS output is lower than this value (expressed in Watts). Note that documentation in nut-names.txt and cmdvartab was limited to difference with an upcoming branch merge, that will add the others



- drivers/mge-hid.c: Align Energy Saving variable names Change ups.load.energysave to battery.energysave.load, to be coherent with the latest commit made in the bcmxcp driver
- tools/Makefile.am: Also distribute nut-ddl-dump.sh helper script

### 2.1698 2015-03-18 Daniele Pezzini <hyouko@gmail.com>

- data/driver.list.in: HCL: EUROCASE EA200N 2000VA supported by nutdrv\_qx Protocol: *megatec* USB subdriver: *fuji* Reference: <http://thread.gmane.org/gmane.comp.monitoring.nut.user/8808/focus=9081>
- drivers/nutdrv\_qx\_bestups.c, drivers/nutdrv\_qx\_blazer-common.c, drivers/nutdrv\_qx\_mecer.c, drivers/nutdrv\_qx\_megatec-old.c, drivers/nutdrv\_qx\_megatec.c, drivers/nutdrv\_qx\_mustek.c, drivers/nutdrv\_qx\_q1.c, drivers/nutdrv\_qx\_volttronic-qs-hex.c, drivers/nutdrv\_qx\_ql.c, drivers/nutdrv\_qx\_zinto.c: nutdrv\_qx: remove redundancy in blazer-common-dependent subdrivers Since main nutdrv\_qx driver already sets an alarm when FSD arises (see nutdrv\_qx.c>ups\_alarm\_set()), there is no need to do so in the various subdrivers. So, in order to prevent a duplicated alarm message, remove all unneeded code from the affected subdrivers (all the ones that depend on nutdrv\_qx\_blazer-common).

### 2.1699 2015-03-17 Daniele Pezzini <hyouko@gmail.com>

- data/driver.list.in: HCL: update Mecer ME-1000-WTU (supported by nutdrv\_qx) Tested by @sliverc (Oliver Sauder) on NUT 2.7.1 Reference: <https://github.com/networkupstools/nut/issues/148>

### 2.1700 2015-03-16 Daniele Pezzini <hyouko@gmail.com>

- docs/man/nutdrv\_qx.txt: nutdrv\_qx: document USB subdrivers' glitches
- drivers/nutdrv\_qx.c: nutdrv\_qx: add workaround in *fuji* subdriver to support all shutdown.returns As *fuji* subdriver discards all the commands of more than 3 characters, in order to support *SnRm* shutdown.returns (and hence the standard *S.5R0003* shutdown.returns with DEFAULT\_{ON,OFF}DELAYS) map *SnRm* shutdown.returns to the corresponding *Sn* commands, meanwhile ignoring ups.delay.start and making the UPS turn on the load as soon as power is back.
- drivers/nutdrv\_qx.c: nutdrv\_qx: fix command handling in *fuji* subdriver *fuji* subdriver supported devices only allow one 8 bytes interrupt as a command/query: make the subdriver discard (and echo back) all the too long commands.

### 2.1701 2015-03-15 Charles Lepple <clepple+nut@gmail.com>

- docs/developers.txt, docs/new-drivers.txt: doc: document build dependencies, etc. Closes: <https://github.com/networkupstools/nut/issues/189>
- docs/nutdrv\_qx-subdrivers.txt: doc: fold a few long preformatted lines in nutdrv\_qx developer guide
- docs/FAQ.txt: docs: FAQ update This addresses several issues: \* <https://github.com/networkupstools/nut/issues/19> \* <https://github.com/networkupstools/nut/issues/191> and Closes: <https://github.com/networkupstools/nut/issues/161>
- docs/man/Makefile.am: docs/man: provide additional detail for missing asciidoc/a2x error
- configure.ac: configure: indicate required version of Asciidoc/A2X/dblatex Still doesn't address data-only packages like docbook-xsl, so leaving this issue open. Reference: <https://github.com/networkupstools/nut/issues/162>
- docs/Makefile.am, docs/man/Makefile.am: Pass --nonet to xsltproc This prevents xsltproc from downloading DocBook XSL files for each step in the documentation build process. Reference: <https://github.com/networkupstools/nut/issues/172> Still need to document what to do if the build fails.

**2.1702 2015-03-11 Arnaud Quette <arnaud.quette@free.fr>**

- data/cmdvartab, docs/nut-names.txt: Add some new variable names, related to ePDUs Add new variables names, related to ePDUs, such as `input.load`, `input.realpower` and `input.*.power`
- drivers/eaton-mib.c: Minor update to comments

**2.1703 2015-03-10 Arnaud Quette <arnaud.quette@free.fr>**

- data/cmdvartab, drivers/mge-hid.c: Add a new EnergySaving threshold for Eaton UPSs Add `ups.load.energysave` parameter, to enable energy saving when the power consumption on the UPS output drops below this value (in percent). This new variable however requires to go through the NUT RFC process to get approved
- docs/documentation.txt: Reference DDL on the Documentation page Add a reference to the NUT Devices Dumps Library (DDL) on the Documentation page, both for the website and the distributed documentation. There are separate references, to distinguish the DDL interest from a user and a developer point of view

**2.1704 2015-03-06 Arnaud Quette <arnaud.quette@free.fr>**

- tools/nut-ddl-dump.sh: First stab at a helper script to generate device dumps This preliminary version only generates .dev (static) dump files. However, a merge with nut-recorder.sh, which generates .seq files (dynamic simulation) is to be considered, along with an improved version for the newer .nds format

**2.1705 2015-03-04 Daniele Pezzini <hyouko@gmail.com>**

- drivers/nutdrv\_qx.c: nutdrv\_qx: increase verbosity of `sgs` USB subdriver In `sgs` USB subdriver: - be more verbose when debugging, - always print the return code when dealing with an error.

**2.1706 2015-02-24 Charles Lepple <clepple+nut@gmail.com>**

- data/driver.list.in: HCL: CPS Value 1500ELCD-RU @ 2.6.3 Source: [http://news.gmane.org/find-root.php?message\\_id=1423241134.6](http://news.gmane.org/find-root.php?message_id=1423241134.6)
- data/driver.list.in: HCL: JAWAN JW-UPSLC02 with blazer\_usb @ 2.7.2 Source: [http://news.gmane.org/find-root.php?message\\_id=SN](http://news.gmane.org/find-root.php?message_id=SN)

**2.1707 2015-02-22 Charles Lepple <clepple+nut@gmail.com>**

- scripts/python/app/NUT-Monitor, scripts/python/app/gui-1.3.glade: NUT-Monitor: updated version to 1.3.1

**2.1708 2015-02-14 Michal Soltys <soltys@ziu.info>**

- drivers/apcsmart.c: apcsmart: fix SEGV in `apc_getcaps()` ups ...

**2.1709 2015-02-14 Michael Fincham <michael.fincham@catalyst.net.nz>**

- scripts/python/app/NUT-Monitor: Correct unsafe permissions on `\~/nut-monitor` (Debian [#777706](#)) `fix-permissions-on-start.debdiff` from <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=777706#24> Closes: <https://github.com/networkupstools/nut/issues/185>

**2.1710 2015-02-14 Daniele Pezzini <hyouko@gmail.com>**

- docs/man/nutdrv\_qx.txt: nutdrv\_qx: specify *bestups* ranges in man pages
-

**2.1711 2015-02-14 Charles Lepple <clepple+nut@gmail.com>**

- NEWS, UPGRADING: NEWS/UPGRADING for 2.7.3

**2.1712 2015-02-13 Michal Soltys <soltys@ziu.info>**

- drivers/apcsmart.c, drivers/apcsmart.h: apcsmart: fix command set parsing for protocol version 4 The issue was discovered with Smart-UPS RT 10000 XL by surr, see <https://github.com/networkupstools/nut/issues/180> When protocol version is 4, command set query returns string with additional section after another . . This patch updates the code to handle such string as well.

**2.1713 2015-02-10 Charles Lepple <clepple+nut@gmail.com>**

- configure.ac: bump version to 2.7.2.6 for snapshots
- scripts/upower/95-upower-hid.rules: upower: regenerate for Powercom PID 0001 (PR #121)
- configure.ac: add bug report URL Should be compatible with Autoconf 2.59 and newer.

**2.1714 2015-02-04 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/eaton-mib.c: Fix outlet.{power,realpower} data mapping According to the new mapping using the input collection, these two data mapping were targeting at the wrong OIDs.
- drivers/netvision-mib.c: Improve support for on-battery detection Add support for upsAlarmOnBattery OID, to better detect on-battery events (reported by Henning Fehrmann)
- drivers/libhid.c, drivers/libhid.h: Fix compilation warning related to sign comparison

**2.1715 2015-02-03 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/eaton-mib.c: Fix and complete a bit Eaton ePDUs support Add some new data mapping to improve support for Eaton ePDUs. This commit includes some new NUT data names that requires approval before being merged

**2.1716 2015-01-31 Ryan Underwood <nemesis@icequake.net>**

- drivers/apc-hid.c, scripts/upower/95-upower-hid.rules: Add a product ID for APC AP9584 USB kit. Resolves nut#181

**2.1717 2015-01-12 Charles Lepple <clepple+nut@gmail.com>**

- scripts/upower/95-upower-hid.rules: upower: regenerate rules file for OpenUPS PID 0xd005
- Makefile.am: Add systemd unit dir fix for *make distcheck*

**2.1718 2015-01-11 Sergey Kvachonok <ravenexp@gmail.com>**

- that don't start with /lib e.g. /usr/lib64/systemd/system becomes /usr/lib64/systemd/system. If a local installation prefix is needed use appropriately prefixed --with-systemdsystemunitdir=" parameter instead.

**2.1719 2015-01-03 Daniele Pezzini <hyouko@gmail.com>**

- drivers/nutdrv\_qx\_bestups.c: nutdrv\_qx: bestups - add support for *M* query
-

**2.1720 2015-01-02 Charles Lepple <clepple+nut@gmail.com>**

- docs/cables.txt, docs/config-notes.txt, docs/configure.txt, docs/features.txt, docs/history.txt, docs/man/nutdrv\_qx.txt, docs/nut-names.txt, docs/scheduling.txt, docs/security.txt: docs: typo fixes

**2.1721 2015-01-01 Charles Lepple <clepple+nut@gmail.com>**

- docs/cables.txt: docs: MGE NMC pinout Closes <https://github.com/networkupstools/nut/issues/141>
- docs/cables.txt: docs: Best Power cable pinout Closes <https://github.com/networkupstools/nut/issues/164>
- INSTALL.nut: docs: clarify group ownership of directory in INSTALL.nut Closes <https://github.com/networkupstools/nut/issues/151>
- docs/man/dummy-ups.txt: docs: dummy-ups repeater mode requires @ in port name Also rewroded parts of the man page.

**2.1722 2014-12-17 bsalvador <bruno.salvador@gmail.com>**

- drivers/solis.c: Update solis.c to force ScanReceivePack()

**2.1723 2014-12-12 Andy Juniper <ajuniper@freeuk.com>**

- clients/upslog.c, docs/man/upslog.txt: upslog: break out of sleep on SIGUSR1 and log immediately Reference: [http://news.gmane.org/find-root.php?message\\_id=54863D44.3000902%40freeuk.com](http://news.gmane.org/find-root.php?message_id=54863D44.3000902%40freeuk.com)

**2.1724 2014-11-25 Charles Lepple <clepple+nut@gmail.com>**

- data/driver.list.in: HCL: additional NHS models

**2.1725 2014-11-17 Charles Lepple <clepple+nut@gmail.com>**

- data/driver.list.in: HCL: NHS Sistemas de Energia: Expert C Isolador series Source: [http://news.gmane.org/find-root.php?message\\_id=54863D44.3000902%40freeuk.com](http://news.gmane.org/find-root.php?message_id=54863D44.3000902%40freeuk.com)

**2.1726 2014-11-08 Daniele Pezzini <hyouko@gmail.com>**

- docs/man/nutdrv\_qx.txt: nutdrv\_qx: update man for the new *fabula* and *fuji* USB subdrivers

**2.1727 2014-11-07 Arnaud Quette <arnaud.quette@free.fr>**

- scripts/subdriver/gen-snmpp-subdriver.sh: Various minor fixes to the SNMP subdriver generator

**2.1728 2014-11-06 Charles Lepple <clepple+nut@gmail.com>**

- drivers/openups-hid.c: openups-hid: Fix scale factors for 0xd005 (0.4) Previous commit had extra scale factors applied.
  - drivers/openups-hid.c, drivers/openups-hid.h: openups-hid: voltage scale factors based on product IDs
  - drivers/openups-hid.c: openups-hid: remove a const; this will require more thought The USB matching routines should have their parameters marked as "const" to indicate that they do not modify the matching tables, but that will require more invasive changes. Roll this back for now.
-

**2.1729 2014-11-05 Charles Lepple <clepple+nut@gmail.com>**

- drivers/openups-hid.c: openups-hid: const and float/double fixups (0.2)
- drivers/openups-hid.c: openups-hid: add USB ProductID d005 for OpenUPS2

**2.1730 2014-11-05 Arnaud Quette <arnaud.quette@free.fr>**

- Makefile.am: Store the git start point as a variable For ChangeLog, we now store the git start point (older reference) in a separate variable, to make the process more clear

**2.1731 2014-11-02 Daniele Pezzini <hyouko@gmail.com>**

- docs/man/nutdrv\_qx.txt, docs/nutdrv\_qx-subdrivers.txt: nutdrv\_qx: update man pages for new *bestups* subdriver
- drivers/Makefile.am, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx\_bestups.c, drivers/nutdrv\_qx\_bestups.h: nutdrv\_qx: add BestUPS subdriver (protocol=bestups) A subdriver using Best Power/Sola Australia protocol as described in <http://www.networkupstools.org/protocols/sola.html> Based also on bestups.c and meant to eventually replace it.

**2.1732 2014-10-31 Charles Lepple <clepple+nut@gmail.com>**

- docs/download.txt: Update VMware ESXi package link (from René Garcia)

**2.1733 2014-10-29 Charles Lepple <clepple+nut@gmail.com>**

- scripts/upower/95-upower-hid.rules: upower: Update Belkin and Liebert rules Follow-up to [issue #159](#).
- drivers/belkin-hid.c, drivers/liebert-hid.c: usbhid-ups: comments describing Belkin/Liebert/Phoenixtec situation Follow-up to [issue #159](#).
- data/driver.list.in: HCL: Rucelf UPOII-3000-96-EL supported by blazer\_ser Manufacturer: <http://www.rucelf.ua/en/catalog/-upoi-3000-96-el/> Closes: <https://github.com/networkupstools/nut/issues/165>

**2.1734 2014-10-28 Elio Parisi <E.Parisi@riello-ups.com>**

- drivers/riello\_usb.c: riello\_usb: explicitly claim USB interface Reference: [http://news.gmane.org/find-root.php?message\\_id=7731ed2](http://news.gmane.org/find-root.php?message_id=7731ed2) and <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=738122>

**2.1735 2014-10-20 Nik Soggia <nut@niksoggia.it>**

- drivers/Makefile.am: missing -lm in drivers/Makefile.am Both bcmxcp and bcmxcp\_usb use ldexp(), so both need -lm. [http://news.gmane.org/find-root.php?message\\_id=544515BA.4060804%40niksoggia.it](http://news.gmane.org/find-root.php?message_id=544515BA.4060804%40niksoggia.it)

**2.1736 2014-10-20 Elio Parisi <E.Parisi@riello-ups.com>**

- drivers/riello\_usb.c: riello\_usb: timeouts and error handling (0.03) Small changes in riello\_usb.c that solved some problem with managing transmission errors between the Raspberry Pi and Riello ups (thanks to Fredrik Öberg): introducing timeout in reading ups data in cypress\_command; enhanced handling error codes [http://news.gmane.org/find-root.php?message\\_id=f5294e5579574b](http://news.gmane.org/find-root.php?message_id=f5294e5579574b)
  - drivers/riello\_ser.c: riello\_ser: enhanced handling error codes (0.03)
-

**2.1737 2014-10-20 Charles Lepple <clepple+nut@gmail.com>**

- docs/.gitignore: docs: docinfo.xml is now auto-generated

**2.1738 2014-10-10 gavrilo-i <gavrilo-i@users.noreply.github.com>**

- data/cmdvartab, drivers/bcmxcp.c, drivers/bcmxcp.h: drivers/bcmxcp: advanced features Closes: #158 Added setvar function exec result parsing Add command to turn load on after shutdown.stayoff and shutdown.return. Outlet control changed. Outlet control via commands "outlet.n.load.on/off" like in other drivers. Variable outlet.n.staus now only for reading. Some code changes in outlet.n.shutdown.return command - now supporting more than 3 outlets (up to 9). Add descriptions to new and some old variables and commands. Add "bypass.start" command, for enabling bypass. For returning in On-Line mode exec "load.on" command. Additional checks of UPS vars. Now add zero var only if it could be changed.

**2.1739 2014-10-10 Paul Chavent <paul.chavent@onera.fr>**

- drivers/belkin-hid.c: drivers : add Liebert GXT3 device.
- drivers/main.c: drivers : fix possible memory leak. In arguments parsing, if user option is passed.

**2.1740 2014-09-30 Michal Soltys <soltys@ziu.info>**

- drivers/apcsmart.c: apcsmart: increase passes in setvar\_enum() Current 6 is not enough for bigger units - especially if we swap to the value directly preceeding the current setting.

**2.1741 2014-09-28 Arnaud Quette <arnaud.quette@free.fr>**

- docs/configure.txt: Clarify a bit more Avahi build requirements
- tools/nut-scanner/Makefile.am: Don't reference subdir-object with \$(top\_srcdir) Replace references to objects in separate directories that were using \$(top\_srcdir) by the expanded version ../../. The variable was otherwise part of the path, resulting in build failures. This completes commit f8abb9b Closes nut#155
- configure.ac: Explicitly use subdir-objects in automake init Closes nut#155

**2.1742 2014-09-27 Daniele Pezzini <hyouko@gmail.com>**

- configure.ac, docs/Makefile.am, docs/docinfo.xml, docs/docinfo.xml.in: docs: add NUT version number/date in PDF documents Reference: <https://github.com/networkupstools/nut/issues/150>
- docs/chunked.xsl, docs/common.xsl, docs/xhtml.xsl: docs: move DocBook options common to html stylesheets to common.xsl
- docs/Makefile.am, docs/common.xsl: docs: add NUT version number/date into footer of HTML pages Reference: <https://github.com/networkupstools/nut/issues/150>

**2.1743 2014-09-27 Arnaud Quette <arno@arno-zbook15.euro.ad.etn.com>**

- docs/man/Makefile.am, docs/man/asciidoc.conf: Add NUT version number into footer of HTML man pages Override AsciiDoc default for footer-txt to include NUT version number into footer of HTML man pages. This commit addresses the 2nd point of nut#150

**2.1744 2014-09-27 Arnaud Quette <arnaud.quette@free.fr>**

- configure.ac, m4/nut\_check\_asciidoc.m4: Also check for source-highlight at configure time source-highlight is used for documentation generation. It's however optional, so we just check for the sake of completion

**2.1745 2014-09-26 Charles Lepple <clepple+nut@gmail.com>**

- drivers/tripplite\_usb.c: tripplite\_usb: set input.voltage.nominal back to 230V (0.30) Keeps the input.voltage and output.voltage scaling from 0.28 Discussion: <http://article.gmane.org/gmane.comp.monitoring.nut.user/8719>

**2.1746 2014-09-26 Arnaud Quette <arnaud.quette@free.fr>**

- conf/upsmon.conf.sample.in, docs/man/nut.conf.txt, docs/man/upsmon.conf.txt, docs/packager-guide.txt: Replace outdated references to shutdown.txt shutdown.txt was merged into config-notes.txt during the AsciiDoc conversion of the whole documentation and website. This content is now available in the docs/config-notes.txt file, section [UPS\_shutdown] "Configuring automatic shutdowns for low battery events"
- conf/upsmon.conf.sample.in: Fix default value of POWERDOWNFLAG POWERDOWNFLAG path changed from the hard-coded value /etc/killpower to the build-time generated @CONFPATH@/killpower. This resulted in an unexpected value /etc/nut/killpower, at least on Debian. (reported by Laurent Bigonville) Closes [nut#74](#)

**2.1747 2014-09-25 Daniele Pezzini <hyouko@gmail.com>**

- drivers/nutdrv\_qx.c: nutdrv\_qx: move to ltrim\_m()/rtrim\_m() functions
- common/common.c, include/common.h: Add ltrim\_m()/rtrim\_m() functions to trim several chars at the same time Also, make ltrim() / rtrim() wrappers around ltrim\_m() / rtrim\_m().
- common/common.c: Make ltrim() modify the input string Also, always check string length in both ltrim() and rtrim(). Reference: <https://github.com/networkupstools/nut/issues/154>

**2.1748 2014-09-25 Charles Lepple <clepple+nut@gmail.com>**

- data/driver.list.in: HCL: sort Tripp Lite models by name, then increasing power I know this doesn't allow the cell merging code to do as much, but this should make it easier to find models.
- data/driver.list.in: HCL: add Tripp Lite OMNIVSINT800 (tripplite\_usb) Source: <http://article.gmane.org/gmane.comp.monitoring.nut.user/8713>
- drivers/tripplite\_usb.c: tripplite\_usb: scale min/max voltages for SMART protocol (0.29) Observed in a dump file from driver version 0.11. Scale input.voltage.minimum and input.voltage.maximum the same way as other voltages.
- drivers/tripplite\_usb.c: tripplite\_usb: fix voltage scaling for 240V/1001 (0.28) Reported by Dave Williams: <http://article.gmane.org/gmane.comp.monitoring.nut.user/8713> The input.voltage and output.voltage scaling for Protocol 1001 did not factor in the input\_voltage\_scaled value.

**2.1749 2014-09-24 Arnaud Quette <arnaud.quette@free.fr>**

- scripts/python/app/nut-monitor.appdata.xml: Fix compliance of NUT-Monitor FreeDesktop AppData file Following the upstream update (by David Goncalves), update the screenshots width and height to conform to AppData specification: <http://people.freedesktop.org/~hughsient/appdata/> Closes [nut#127](#)

**2.1750 2014-09-17 Arnaud Quette <arnaud.quette@free.fr>**

- docs/nut-qa.txt: Minor update and completion Use the new Debian package tracker URL and add Redhat / Fedora bug tracker



**2.1751 2014-09-15 Daniele Pezzini <hyouko@gmail.com>**

- data/driver.list.in: HCL: add devices supported by nutdrv\_qx - Fideltronik LUPUS 500 USB Protocol: *megatec* USB subdriver: *fabula* Reference: <http://lists.alth.debian.org/pipermail/nut-upsuser/2014-June/009059.html>
  - FTUPS FT-1000BS(T) / Voltronic Power Apex 1KVA Protocol: *voltronic-qs-hex* USB devices → USB subdriver: *cypress* - FTUPS FT-1000BS / Voltronic Power Imperial 1KVA Protocol: *voltronic-qs* USB devices → USB subdriver: *cypress*

**2.1752 2014-09-08 Charles Lepple <clepple+nut@gmail.com>**

- docs/documentation.txt: docs: Add link to Roger Price's openSUSE writeup

**2.1753 2014-09-04 Daniele Pezzini <hyouko@gmail.com>**

- drivers/nutdrv\_qx.c: nutdrv\_qx: prevent a vicious loop when unexpected answers happen If a *QX\_FLAG\_QUICK\_POLL* item gets an unexpected (non-empty) answer and, after returning from *qx\_ups\_walk()*, it is not followed by at least one item using a different *command*, the driver will loop endlessly using the same *broken* answer instead of trying to get a new one from the UPS. To solve this issue, make sure to have an empty *previous\_item* when starting *qx\_ups\_walk()*. Also, bail out of *qx\_ups\_walk()* when a *QX\_FLAG\_QUICK\_POLL* item can't be preprocessed properly through *ups\_infoval\_set()*.

**2.1754 2014-09-04 Charles Lepple <clepple+nut@gmail.com>**

- docs/man/asm.txt: docs: recommend I2C bus name for asem driver

**2.1755 2014-09-03 Daniele Pezzini <hyouko@gmail.com>**

- drivers/Makefile.am, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx\_voltronic-qs-hex.c, drivers/nutdrv\_qx\_voltronic-qs-hex.h: nutdrv\_qx: add Voltronic-QS-Hex subdriver (protocol=voltronic-qs-hex) A subdriver using a protocol, specific to UPSes manufactured by Voltronic Power, partially Hex-encoded (e.g. *QS* reply) and supporting some megatec commands.
- docs/nutdrv\_qx-subdrivers.txt: nutdrv\_qx: update docs about added support for more complex UPS answers
- drivers/nutdrv\_qx.c, drivers/nutdrv\_qx.h, drivers/nutdrv\_qx\_mecer.c, drivers/nutdrv\_qx\_megatec-old.c, drivers/nutdrv\_qx\_megatec.c, drivers/nutdrv\_qx\_mustek.c, drivers/nutdrv\_qx\_q1.c, drivers/nutdrv\_qx\_voltronic-qs.c, drivers/nutdrv\_qx\_voltronic.c, drivers/nutdrv\_qx\_zinto.c: nutdrv\_qx: add basic support for more complex UPS answers Add support (also in *TESTING* mode) for \0 chars in raw UPS answers and the ability to preprocess answers before anything else (e.g.: for CRC, decoding, ...). Increase verbosity of USB subdrivers and serial communication. Always print also the return code when dealing with an error. Update all subdrivers accordingly, bump versions.

**2.1756 2014-09-03 Arnaud Quette <arnaud.quette@free.fr>**

- docs/man/nut-scanner.txt: Fix typo error in nut-scanner doc The example network range scanned when using 192.168.0.0/25 is actually 192.168.0.0 to 192.168.0.12\*7\* not (i.e. not .128) as previously stated (reported by Evgeny *Jim* Klimov) Closes [nut#144](#)

**2.1757 2014-09-02 Charles Lepple <clepple+nut@gmail.com>**

- data/driver.list.in, drivers/belkin-hid.c: HCL: Belkin Regulator PRO-USB 050d:0f51 (0.17) <https://github.com/networkupstools/nut/issues/149>

**2.1758 2014-08-22 Charles Lepple <clepple+nut@gmail.com>**

- data/driver.list.in: HCL: Mecer ME-100-WTU with blazer\_usb USB VID:PID = 0665:5161 Tested by @silvec (Oliver Sauder) on NUT 2.6.3 Reference: <https://github.com/networkupstools/nut/issues/148>



**2.1759 2014-08-19 Charles Lepple <clepple+nut@gmail.com>**

- docs/documentation.txt: docs: update links for two articles

**2.1760 2014-08-17 Yann E. MORIN <yann.morin.1998@free.fr>**

- conf/Makefile.am: conf/: fix parallel install Do not reference the upsmon.conf.sample twice, otherwise install, with a high number of make jobs, may fail, like so: <http://autobuild.buildroot.net/results/256/2567e13cd5bc702bc3a38a1d6fc8e34022cc7db5/-build-end.log> --- This is not a rare occurrence, as my testing managed to trigger the issue in about 1 test out of 10 on average, on a not-so-fast machine.

**2.1761 2014-08-17 Charles Lepple <clepple+nut@gmail.com>**

- tools/nut-usbinfo.pl: nut-usbinfo: fix FreeBSD devd.conf to use \$cdev
- scripts/upower/95-upower-hid.rules: 95-upower-hid.rules: updated by nut-usbinfo.pl URL updated in previous commit.
- tools/nut-usbinfo.pl: nut-usbinfo: change link from Alioth SVN to GitHub
- scripts/udev/.gitignore: udev: ignore 62-nut-usbups.rules Follow-up commit to [nut#140](#)

**2.1762 2014-08-16 Charles Lepple <clepple+nut@gmail.com>**

- tools/nut-usbinfo.pl: nut-usbinfo: ignore \*.orig files

**2.1763 2014-08-14 Émilien Kia <emilien.kia@gmail.com>**

- configure.ac, docs/man/Makefile.am, m4/nut\_check\_asciidoc.m4: Test presence of xmllint for manpages doc generation.
- configure.ac, docs/man/Makefile.am, m4/nut\_check\_asciidoc.m4: Test presence of xsltproc for manpages doc generation.

**2.1764 2014-08-09 Charles Lepple <clepple+nut@gmail.com>**

- drivers/blazer\_usb.c, drivers/libusb.c, drivers/nutdrv\_qx.c, drivers/tripplite\_usb.c, drivers/usb-common.h, drivers/usbhid-ups.c: libusb.c: consolidate USB-related addvar() calls
- drivers/cps-hid.c: usbhid-ups (CPS): determine battery.voltage scale factor at runtime If the battery.voltage reading is greater than 1.4x battery.voltage.nominal, apply a scale factor of 2/3 to bring the voltage back in line. Closes [nut#142](#)

**2.1765 2014-08-08 Arnaud Quette <arnaud.quette@free.fr>**

- docs/man/nut-scanner.txt: Fix typo error Fix a typo error on "-B" option (reported by Evgeny *Jim* Klimov)

**2.1766 2014-08-05 Arnaud Quette <arnaud.quette@free.fr>**

- scripts/python/Makefile.am: Distribute FreeDesktop AppData file for NUT Monitor FreeDesktop AppData file for NUT Monitor was not distributed, waiting for some approval

**2.1767 2014-08-04 Charles Lepple <clepple+nut@gmail.com>**

- docs/man/ups.conf.txt, drivers/libusb.c: Remove redundant usb\_set\_altinterface(), unless user requests it Adds flag/value to USB driver options. Closes [nut#138](#)
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**2.1768 2014-08-01 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- scripts/udev/Makefile.am, scripts/udev/README: Fix USB permission issues related to Linux / udev Rename udev rules file to 62-nut-usbups.rules, to prevent NUT USB privileges from being overwritten Closes [#140](#)
- docs/cables.txt: Fix typo error on Eaton / MGE USB-RJ45 cable

**2.1769 2014-07-14 Giuseppe Corbelli <[giuseppe.corbelli@copanitalia.com](mailto:giuseppe.corbelli@copanitalia.com)>**

- AUTHORS, docs/man/asem.txt: asem: additional documentation <http://article.gmane.org/gmane.comp.monitoring.nut.devel/6741>

**2.1770 2014-07-14 Charles Lepple <[clepple+nut@gmail.com](mailto:clepple+nut@gmail.com)>**

- scripts/Aix/.gitignore: Ignore generated AIX spec file

**2.1771 2014-07-13 Charles Lepple <[clepple+nut@gmail.com](mailto:clepple+nut@gmail.com)>**

- docs/man/upscli\_get.txt: upscli\_get(): mention SIGPIPE handling Closes: [#132](#)
- data/driver.list.in: HCL: distinguish between Tripp Lite old and new protocol 3005

**2.1772 2014-07-13 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- scripts/python/app/nut-monitor.appdata.xml: Complete FreeDesktop AppData file for NUT Monitor As per Richard Hughes comments, in [#127](#), complete the description field

**2.1773 2014-07-12 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- scripts/Aix/nut-aix.spec.in: Minor adjustments as per Github comments
- docs/configure.txt: Add missing documentation for configure option The new asem driver introduced --with-linux\_i2c, for which documentation was missing in configure documentation

**2.1774 2014-07-11 Daniele Pezzini <[hyouko@gmail.com](mailto:hyouko@gmail.com)>**

- drivers/nutdrv\_qx.c: nutdrv\_qx: improve the USB matching procedure Consider also the iManufacturer/iProduct strings when checking devices (if subdriver is not specified) to assign the right subdriver in case the VID:PID couple is not specific enough.

**2.1775 2014-07-11 Charles Lepple <[clepple+nut@gmail.com](mailto:clepple+nut@gmail.com)>**

- NEWS, data/driver.list.in, docs/man/Makefile.am, docs/man/asem.txt, docs/man/index.txt: asem: documentation

**2.1776 2014-07-07 Giuseppe Corbelli <[giuseppe.corbelli@copanitalia.com](mailto:giuseppe.corbelli@copanitalia.com)>**

- configure.ac, data/driver.list.in, drivers/Makefile.am, drivers/asem.c: Support for ASEM UPS on Linux/i2c Patch from <http://article.gmane.org/gmane.comp.monitoring.nut.devel/6723> Thread: [http://news.gmane.org/find-root.php?message\\_id=53A83FCB.1080808%40copanitalia.com](http://news.gmane.org/find-root.php?message_id=53A83FCB.1080808%40copanitalia.com) Builds on Ubuntu 12.10 and 14.04; requires libi2c-dev
-

**2.1777 2014-07-05 Charles Lepple <clepple+nut@gmail.com>**

- drivers/tripplite\_usb.c: tripplite\_usb: fix typos in bin2d() and control\_outlet() (0.27)
- drivers/tripplite\_usb.c: tripplite\_usb: control\_outlet() for protocol 3005 (0.26)
- drivers/tripplite\_usb.c: tripplite\_usb: Additional 3005 protocol support (0.25) [http://news.gmane.org/find-root.php?message\\_id=CAFe](http://news.gmane.org/find-root.php?message_id=CAFe)
- drivers/tripplite\_usb.c: tripplite\_usb: basic support for 3005 binary protocol (0.24) Based on logs from SMART500RT1U

**2.1778 2014-07-04 vesnn <metanoite@rambler.ru>**

- drivers/powercom.c: Update powercom.c Fix Powercom Imperial initialization for models since 2009 with USB interface.

**2.1779 2014-06-30 Daniele Pezzini <hyouko@gmail.com>**

- drivers/nutdrv\_qx.c: nutdrv\_qx: add new *fabula* USB subdriver Add a new USB subdriver (*fabula*) to support models manufactured/rebranded by Fideltronik and accompanied by UPSilon2000 software. Reference: <http://lists.alioth.debian.org/pipermail/nut-upsuser/2014-June/009059.html>

**2.1780 2014-06-26 Daniele Pezzini <hyouko@gmail.com>**

- drivers/nutdrv\_qx.c: nutdrv\_qx: add new *fuji* USB subdriver Add a new USB subdriver (*fuji*) to support models manufactured by Fuji (and others) and accompanied by UPSmart2000I software.

**2.1781 2014-06-23 Arnaud Quette <arnaud.quette@free.fr>**

- scripts/python/app/nut-monitor.appdata.xml: Create a FreeDesktop AppData file for NUT Monitor appData files provide to users long descriptions, screenshots and other useful information on application. This will mainly serve for Software Center like applications

**2.1782 2014-06-19 Charles Lepple <clepple+nut@gmail.com>**

- data/driver.list.in: HCL: Lacerda New Orion 800VA with blazer\_usb [http://news.gmane.org/find-root.php?message\\_id=CANDysWwq](http://news.gmane.org/find-root.php?message_id=CANDysWwq)

**2.1783 2014-06-17 Charles Lepple <clepple+nut@gmail.com>**

- data/driver.list.in: HCL: add APC-Microsol entry for solis
- drivers/solis.c: solis: silence clang warnings about extra parentheses Since we're in the neighborhood (#133)... Typically, the idiom is either: if ( a == b ) for equality checking, or: if ( ( a = b ) ) for assignment with a comparison.
- drivers/solis.c, drivers/solis.h: solis: eliminate fixed-length string buffer for model name The new APC model name overflows the buffer. (#133)

**2.1784 2014-06-16 bsalvador <bruno.salvador@gmail.com>**

- drivers/solis.c: Update on solis.c to add more support to Back-UPS 1200BR
  - drivers/solis.c: Update solis.c to support Microsol-APC Unit. Added support to Back-UPS 1200BR (Microsol-APC) unit.
-

**2.1785 2014-06-15 Charles Lepple <clepple+nut@gmail.com>**

- docs/man/upscli\_get.txt, docs/man/upscli\_list\_next.txt, docs/man/upscli\_list\_start.txt: docs: synchronize upscli\_\* numq/numa with header There were a few leftover signed int parameters in the man pages, but the headers and implementation use *unsigned int*. Closes: <https://github.com/networkupstools/nut/issues/131>
- docs/man/solis.txt: docs: mention APC in Microsol driver man page
- docs/man/apcsmart.txt: docs: point APC Microsol users from apcsmart to solis Also make some of the formatting and grammar self-consistent.
- drivers/solis.c: solis: recognize APC BZ1200-BR and BZ2200BI-BR (0.62) Patch suggested by Bruno Salvador for BZ1200-BR, and also tested by Douglas A. Augusto on BZ2200BI-BR. Reference: \* <http://forums.freenas.org/index.php?threads/-nobreak-bz1200-br-back-ups-rs-1200va-600w-bivolt-115-nt.20247/> \* [http://news.gmane.org/find-root.php?message\\_id=CACu22%2c](http://news.gmane.org/find-root.php?message_id=CACu22%2c)

**2.1786 2014-06-08 Arnaud Quette <arnaud.quette@free.fr>**

- scripts/subdriver/gen-snmplib-subdriver.sh: Inline documentation fixes

**2.1787 2014-06-03 george <rpubaddr0@gmail.com>**

- scripts/python/module/PyNUT.py: Fixed version description.
- scripts/python/module/PyNUT.py: Added author information, bumped version. According to the semantic versioning scheme (<http://semver.org/>), adding features that do not break backwards compatibility with previous releases means that the minor version number should be incremented.
- scripts/python/module/PyNUT.py: Change format of raise keyword. Fixes PyNUT Python 3 compatibility.
- scripts/python/module/PyNUT.py: PyNUT: Create a custom exception class. This maintains backwards compatibility, and allows calling programs to use "except PyNUTError" instead of "except Exception" when using PyNUT methods. See <http://wiki.python.org/moin/HandlingExceptions> for more information.
- scripts/python/module/PyNUT.py: Fix error when raising without an Exception. Raising without a valid exception is invalid:  
>>> raise Traceback (most recent call last): File "<stdin>", line 1, in <module> TypeError: exceptions must be old-style classes or derived from BaseException, not NoneType >>> raise Exception Traceback (most recent call last): File "<stdin>", line 1, in <module> Exception Changing this to "raise Exception" fixes this problem.

**2.1788 2014-06-01 Charles Lepple <clepple+nut@gmail.com>**

- docs/man/triplite\_usb.txt, drivers/triplite\_usb.c: triplite\_usb: last tweaks, for now. Initialize bv\_12V to a dummy value, since gcc can't see that it is used in the union of both conditionals where it is set. Also, align the documentation with the strange definition of empty used by the Tripp Lite state-of-charge approximation.
- drivers/triplite\_usb.c: triplite\_usb: silence warning (0.23) Pedantic, to be sure, but someone might try the driver with a protocol not listed, and sure enough, bv\_12V won't be initialized.
- docs/man/triplite\_usb.txt, drivers/triplite\_usb.c: triplite\_usb: expose battery\_min/\_max as variables (0.22) [http://news.gmane.org/find-root.php?message\\_id=21370.36829.817425.464627%40godel.bruda.ca](http://news.gmane.org/find-root.php?message_id=21370.36829.817425.464627%40godel.bruda.ca)

**2.1789 2014-05-27 Charles Lepple <clepple+nut@gmail.com>**

- data/driver.list.in: HCL: GRAFENTHAL PR-3000-HS supported by snmp-ups Tested with 2.6.5-3 (0.68) on Windows (IETF MIB 1.4). Some NUT variables are zero - further testing may be needed. Reference: [http://news.gmane.org/find-root.php?message\\_id=](http://news.gmane.org/find-root.php?message_id=)

**2.1790 2014-05-23 Charles Lepple <clepple+nut@gmail.com>**

- drivers/tripplite\_usb.c: tripplite\_usb: use dv/dq charge calculation for all models (0.21)

**2.1791 2014-05-20 Andrew Burdo <zeezooz@gmail.com>**

- drivers/powercom-hid.c: Add comments for some values.
- drivers/usbhid-ups.c: Reuse variable.
- drivers/usbhid-ups.c: Add default case.

**2.1792 2014-05-18 Charles Lepple <clepple+nut@gmail.com>**

- drivers/genericups.c: genericups: log cable type overrides as they are parsed Fixes [nut#28](#) Better than nothing, but without a unit to test against, I don't want to make any more intrusive changes.
- scripts/upower/95-upower-hid.rules: upower: regenerate rules file USB VID:PID = 10af:0004 This dependency graph makes my head spin.
- configure.ac: version to 2.7.2.5 for snapshots

**2.1793 2014-05-13 Daniele Pezzini <hyouko@gmail.com>**

- drivers/compaq-mib.c: compaq-mib: comment out no longer used items As per 31827d5faa86377efb7a92b7aec322cc4c7a275f

**2.1794 2014-05-03 Daniele Pezzini <hyouko@gmail.com>**

- docs/download.txt: docs: add Void Linux in download/Binary packages Reference: <https://github.com/networkupstools/nut/-/issues/125>

**2.1795 2014-05-03 Charles Lepple <clepple+nut@gmail.com>**

- docs/Makefile.am: docs: add mge-usb-rj45.jpg to distribution

**2.1796 2014-05-02 Arnaud Quette <arnaud.quette@free.fr>**

- docs/images/cables/mge-usb-rj45.jpg: Add MGE information on USB-RJ45 cable The illustration matching the previous commit was still needed on the nut repository, and not on the nut-website on
- docs/cables.txt: Add MGE information on USB-RJ45 cable These information were provided by MGE years ago, and were waiting for counter testing. Martin De Graaf - Loyer has now fixed this. Note that the matching illustration will be committed on the new nut-website repository

**2.1797 2014-04-29 Andrew Burdo <zeezooz@gmail.com>**

- drivers/powercom-hid.c, drivers/usbhid-ups.c: Bump versions.
  - data/driver.list.in, docs/man/usbhid-ups.txt: Update documentation.
  - drivers/usbhid-ups.c: Reconnect on interrupt read error.
  - drivers/libhid.c, drivers/libhid.h, drivers/powercom-hid.c, drivers/usbhid-ups.c: Reading from the interrupt pipe implies that you use INPUT flagged objects.
  - drivers/powercom-hid.c: Remove erroneous status.
  - drivers/powercom-hid.c: Comment non-compliant variables.
-

**2.1798 2014-04-17 Stephen J. Butler <[stephen.butler@gmail.com](mailto:stephen.butler@gmail.com)>**

- drivers/tripplite-hid.c: Scale for SMART1500LCDT

**2.1799 2014-04-17 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- NEWS, UPGRADING, configure.ac: Update for release 2.7.2 Complete the release information for NUT 2.7.2

**2.1800 2014-04-17 Andrew Burdo <[zeezooz@gmail.com](mailto:zeezooz@gmail.com)>**

- drivers/libhid.c, drivers/libhid.h, drivers/powercom-hid.c, drivers/usbhid-ups.c: Add support for 0d9f:0001 (USB HID, Powercom).

**2.1801 2014-04-07 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- drivers/compaq-mib.c: Fix erroneous status in HP/Compaq SNMP MIB Using the most recent HP firmware (1.76), erroneous on-battery status were reported. Also disable an erroneous low-battery definition (pointing nowhere), while waiting for actual improvements (report and patch from Philippe Andersson ; Closes [nut#117](#))

**2.1802 2014-04-06 Daniele Pezzini <[hyouko@gmail.com](mailto:hyouko@gmail.com)>**

- drivers/mge-xml.c: mge-xml: fix compile-time warnings, versioning

**2.1803 2014-04-05 Charles Lepple <[clepple+nut@gmail.com](mailto:clepple+nut@gmail.com)>**

- data/driver.list.in: HCL: Numeric Digital 800 plus USB VID:PID = 0665:5161 Reference: [nut#115](#) (blazer\_usb @ 2.6.4; waiting for confirmation with nutdrv\_qx)
- data/driver.list.in: HCL: Eaton Powerware 3105 supported by bcmxcp\_usb Closes [nut#117](#)
- data/driver.list.in, drivers/belkin-hid.c: usbhid-ups/belkin-hid: add support for Emerson Network Power Liebert PSI 1440 USB VID:PID = 10af:0004 <http://article.gmane.org/gmane.comp.monitoring.nut.user/8479>

**2.1804 2014-04-05 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- drivers/al175.c: Fix data format warnings on all architectures Complete commit 7daa0feb6ed4f1c29bfe14c8e491ba198a4ba643, and actually fix some of the warnings related data format. Also bump al175 driver revision
- clients/Makefile.am: Update libupsclient library version information Following the recent export of libcommon functions in libupsclient, update the library version information to 4:0:0

**2.1805 2014-04-04 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- drivers/al175.c: Fix data format warnings Fix a few warnings related data format, in debug code
- clients/Makefile.am: Add libnutclient library version information Add the missing LDFLAGS for adding version information

**2.1806 2014-03-21 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- data/driver.list.in: [HCL] CABAC UPS-1700DV2 supported by blazer\_usb Reported by jammin84 Closes [#113](#)
  - clients/Makefile.am, common/Makefile.am: Link libupsclient with libcommon Fix undefined references related to functions of libcommon. This issue was reported on Debian: <https://bugs.debian.org/731156> (patch from Matthias Klose ; Closes Github issue [#73](#))
-

**2.1807 2014-03-18 Charles Lepple <clepple+nut@gmail.com>**

- data/driver.list.in: [HCL] Digitus DN-170014 supported by richcomm\_usb Reference: <http://lists.althoth.debian.org/pipermail/-nut-upsdev/2014-March/006695.html> -or- [http://news.gmane.org/find-root.php?message\\_id=CADq9dvWMx0xBz9XXkVKXCre4ox](http://news.gmane.org/find-root.php?message_id=CADq9dvWMx0xBz9XXkVKXCre4ox)

**2.1808 2014-03-05 Émilien Kia <emilien.kia@gmail.com>**

- scripts/Aix/nut-aix.spec.in: Make web source path independant from specific version.
- scripts/Aix/nut-aix.spec.in: Use configure-dependant variables instead of statically defined ones for user and group.
- configure.ac: Use \$target\_cpu instead of calling uname to know cpu type. Fix crosscompilation.

**2.1809 2014-03-05 Emilien Kia <EmilienKia@Eaton.com>**

- scripts/Windows/Installer/NUT-Installer.xml: Modify version in Windows installer description file.

**2.1810 2014-03-05 Charles Lepple <clepple+nut@gmail.com>**

- UPGRADING: Added note about --enable-option-checking=fatal Closes #99 (really)

**2.1811 2014-03-04 Emilien Kia <EmilienKia@Eaton.com>**

- clients/upsmon.h: Define a NOTIFY\_DEFAULT flag, use it to initialize upsmon. (Part of change for Windows branch, to minimize differences with master) Also fixes NOTIFY\_CAL to have same settings as everyone else.
- clients/upsmon.h: Define a NOTIFY\_DEFAULT flag, use it to initialize upsmon. (Part of change for Windows branch, to minimize differences with master) Also fixes NOTIFY\_CAL to have same settings as everyone else.
- scripts/Windows/Installer/NUT-Installer.xml: Add Windows registry entry for NUT installation path.
- docs/man/upsmon.conf.txt, docs/man/upsmon.txt: Add upsmon default flag for Windows notice in documentation.
- conf/upsmon.conf.sample.in: Update upsmon config to note that Windows only writes to syslog on Windows by default.
- clients/upsmon.h: Use only NOTIFY\_SYSLOG as default notify flag in upsmon for Windows. Define a NOTIFY\_DEFAULT flag. Set it accordingly to platform. Use it to initialize upsmon.

**2.1812 2014-03-03 Émilien Kia <emilien.kia@gmail.com>**

- drivers/nutdrv\_qx.h: Detect if TRUE (and FALSE) are already defined and define bool\_t accordingly.

**2.1813 2014-03-03 Charles Lepple <clepple+nut@gmail.com>**

- data/driver.list.in: HCL: various updates \* Closes <https://github.com/networkupstools/nut/issues/107> \* <http://lists.althoth.debian.org/pipermail/nut-upsdev/2013-November/006564.html> \* [http://news.gmane.org/find-root.php?message\\_id=50D9D460.1080408%40gma](http://news.gmane.org/find-root.php?message_id=50D9D460.1080408%40gma) \* [http://news.gmane.org/find-root.php?message\\_id=CA%2b4duQ%3dppW%2bPz%2bRVPVXJyFLj0HErh1ZOtm5tk8b6n5Nd5kSk](http://news.gmane.org/find-root.php?message_id=CA%2b4duQ%3dppW%2bPz%2bRVPVXJyFLj0HErh1ZOtm5tk8b6n5Nd5kSk) \* [http://news.gmane.org/find-root.php?message\\_id=528EC53C.9000801%40me.com](http://news.gmane.org/find-root.php?message_id=528EC53C.9000801%40me.com)
  - docs/nut-qa.txt: NUT QA document: updated and reworded
  - docs/nut-qa.txt: NUT QA document: CR→LF
  - docs/FAQ.txt: FAQ: minor updates Update the bestfortress entry, fix the mythicbeasts URL, and reword a few entries.
-



**2.1814 2014-02-28 Emilien Kia <EmilienKia@Eaton.com>**

- scripts/Windows/Installer/NUT-Installer.xml: Fix Windows Installer file list. Use splitted Blazer driver html man pages (ser & usb).

**2.1815 2014-02-27 Arnaud Quette <arnaud.quette@free.fr>**

- UPGRADING: Add a note on Hardware Abstraction Layer removal
- INSTALL.nut, autogen.sh, configure.ac, docs/Makefile.am, docs/configure.txt, docs/developers.txt, docs/features.txt, docs/macros.txt, docs/new-drivers.txt, docs/nut-hal.txt, docs/packager-guide.txt, drivers/Makefile.am, drivers/dstate-hal.c, drivers/dstate-hal.h, drivers/main-hal.c, drivers/main-hal.h, m4/nut\_check\_libhal.m4, m4/nut\_config\_libhal.m4: Remove the remaining HAL files and references Remove the remaining build rules, source code and documentation related to the FreeDesktop Hardware Abstraction Layer (HAL) support. For the record, with this HAL implementation, NUT drivers were sending data over Dbus (Closes: #99)

**2.1816 2014-02-26 Arnaud Quette <arnaud.quette@free.fr>**

- scripts/Makefile.am, scripts/README, scripts/hal/.gitignore, scripts/hal/Makefile.am, tools/nut-usbinfo.pl: Remove the generation of HAL support files Remove the code supporting the generation of HAL FDI file. This is the first commit of a set to address Github [issue #99](#)
- drivers/snmp-ups.c: Fix snmp-ups segmentation fault A basic sanity check was missing in the core code of snmp-ups, causing a driver crash under some specific circumstances, at driver initialisation time. Hence, this does not affect production systems
- README, UPGRADING, docs/FAQ.txt, docs/config-notes.txt, drivers/Makefile.am, scripts/Solaris/nut.in, scripts/Solaris/postinstall.in, scripts/Solaris/preremove.in, scripts/systemd/nut-driver.service.in, scripts/systemd/nutshutdown.in: Closes #96: Install upsdrvctl to \$prefix/sbin Install upsdrvctl to \$prefix/sbin rather than \$driverexec. upsdrvctl has been historically standing beside the drivers. It now resides in the system binaries (\$prefix/sbin) directory

**2.1817 2014-02-25 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/mge-hid.c: Add improved support for Eaton 5P Add the necessary hooks to improve support for Eaton 5P range. This includes post-processing of the model name, along with handling rules for battery voltage (actual and nominal)

**2.1818 2014-02-24 Charles Lepple <clepple+nut@gmail.com>**

- drivers/blazer\_usb.c, drivers/libusb.c, drivers/nutdrv\_qx.c, drivers/riello\_usb.c, drivers/usbhid-ups.c: OpenBSD ports tree patches for EPROTO Closes [nut#44](#)

**2.1819 2014-02-20 Arnaud Quette <ArnaudQuette@Eaton.com>**

- drivers/mge-hid.c: Fix "no OFF status in "ups.status" although UPS is switched off" and "OB status in "ups.status" although power supply is present" in mge-hid driver. Fix problem up from Schleicher.
  - drivers/mge-hid.c: Fix "no OFF status in "ups.status" although UPS is switched off" and "OB status in "ups.status" although power supply is present" in mge-hid driver. Fix problem up from Schleicher.
-



**2.1820 2014-02-19 Daniele Pezzini <hyouko@gmail.com>**

- docs/Makefile.am, docs/chunked.xml, docs/common.xml, docs/xhtml.xml: docs: prevent smartphones from being too smart (docbook) Add HTML <meta> tag to not auto-create telephone number links on mobile browsers also in docbook processed documents. Reference: <https://github.com/networkupstools/nut/issues/78> XSL files source: - <https://github.com/asciidoc/asciidoc/blob/master/docbook-xsl/common.xml> - <https://github.com/asciidoc/asciidoc/blob/master/docbook-xsl/xhtml.xml> - <https://github.com/asciidoc/asciidoc/blob/master/docbook-xsl/chunked.xml>
- docs/man/asciidoc.conf: docs: prevent smartphones from being too smart Add HTML <meta> tag to not auto-create telephone number links on mobile browsers. Reference: <https://github.com/networkupstools/nut/issues/78>

**2.1821 2014-02-15 Arnaud Quette <arnaud.quette@free.fr>**

- docs/acknowledgements.txt: Update NUT team membership for Daniele Pezzini Daniele Pezzini is a now a NUT senior developer

**2.1822 2014-02-14 Charles Lepple <clepple+nut@gmail.com>**

- Makefile.am: devd: use staging directory for distcheck
- drivers/Makefile.am, drivers/snmp-ups.c, drivers/xppc-mib.c, drivers/xppc-mib.h: snmp-ups: add XPPC-MIB for Tripp Lite SU10KRT3/1X
- scripts/subdriver/gen-snmplib-subdriver.sh: gen-snmplib-subdriver.sh: documentation updates

**2.1823 2014-02-14 Arnaud Quette <arnaud.quette@free.fr>**

- docs/acknowledgements.txt, docs/website/news.txt: Formalizing the end of the relationship with Eaton The situation of the relationship with Eaton has evolved, and since 2011 Eaton does not support NUT anymore. This may still evolve in the future. But for now, please do not consider anymore that buying Eaton products will provide you with official support from Eaton, or a better level of device support in NUT.
- docs/acknowledgements.txt: Update NUT team membership for Frédéric Bohe Frederic Bohe, NUT senior developer and Eaton contractor from 2009 to 2013, is now a retired member. Thanks for all the hard work on the Windows port, nut-scanner, Unix packaging, support, ... Also update the developers membership page, from Alioth to GitHub

**2.1824 2014-02-13 Charles Lepple <clepple+nut@gmail.com>**

- docs/man/upsimage.cgi.txt: upsimage.cgi(8): update GD homepage

**2.1825 2014-02-13 Arnaud Quette <arnaud.quette@free.fr>**

- .gitignore, server/.gitignore: Minor completion to gitignore files Add a few more exotic targets, related to debug or official distribution

**2.1826 2014-02-11 Daniele Pezzini <hyouko@gmail.com>**

- .gitignore, clients/.gitignore, common/.gitignore, conf/.gitignore, data/.gitignore, data/html/.gitignore, docs/.gitignore, docs/man/.gitignore, docs/website/.gitignore, docs/website/scripts/.gitignore, drivers/.gitignore, include/.gitignore, lib/.gitignore, m4/.gitignore, scripts/.gitignore, scripts/HP-UX/.gitignore, scripts/Solaris/.gitignore, scripts/augeas/.gitignore, scripts/avahi/.gitignore, scripts/hal/.gitignore, scripts/hotplug/.gitignore, scripts/python/.gitignore, scripts/systemd/.gitignore, scripts/udev/.gitignore, scripts/ufw/.gitignore, server/.gitignore, tests/.gitignore, tools/.gitignore, tools/nut-scanner/.gitignore: Simplify gitignore files Remove redundancies and old/svn things. Limit the scope wherever it makes sense. Ignore all cscope files and test logs. Make ignoring generated files easier to maintain.

**2.1827 2014-02-11 Charles Lepple <clepple+nut@gmail.com>**

- drivers/libshut.c: libshut: partially revert PnP/RTS change Reported by Baruch Even. It is unclear how this will work after running nut-scanner, but it is more important to keep the drivers working. Reference: 65db105 / 2013-09-24T08:18:00Z!fredericbohe@eat Closes: nut#91

**2.1828 2014-02-10 Charles Lepple <clepple+nut@gmail.com>**

- scripts/subdriver/gen-snmplib-subdriver.sh: gen-snmplib-subdriver.sh: fix option typos \* Use -M for MIB directories, to match snmpwalk and the help text. \* Add space before -c in snmpwalk (not sure how this worked before)
- scripts/Makefile.am: cosmetic: Indent scripts/Makefile.am EXTRA\_DIST continuation lines
- scripts/Makefile.am: Add gen-snmplib-subdriver.sh to distribution tarball

**2.1829 2014-02-09 Daniele Pezzini <hyouko@gmail.com>**

- docs/man/nutdrv\_qx.txt: nutdrv\_qx: update manpage for the newly supported Voltronic Power P98 units
- drivers/nutdrv\_qx.c, drivers/nutdrv\_qx\_mecer.c, drivers/nutdrv\_qx\_mecer.h: nutdrv\_qx: improve support for (ACK/(NAK and Voltronic Power P98 UPSes In *mecer* subdriver's claim function try to get protocol (QPI, for Voltronic Power devices) used by the UPS: - supported devices are Voltronic Power's P98 units - if the UPS doesn't support the QPI command, use its reply to identify whether it uses (ACK/(NAK replies This way we can catch (ACK/(NAK devices, while previously the *mecer* subdriver was *hidden* by the *megatec* (echo back/ACK/NAK) one. Plus Q1 units with ACK/NAK replies or echoing back not supported and rejected commands are no longer wrongly *claimed* by the *mecer* subdriver.

**2.1830 2014-02-03 Daniele Pezzini <hyouko@gmail.com>**

- docs/.gitignore, docs/Makefile.am, docs/documentation.txt: docs: build PDF also for cables.txt

**2.1831 2014-02-02 Daniele Pezzini <hyouko@gmail.com>**

- Makefile.am, configure.ac, docs/.gitignore, docs/Makefile.am, docs/man/.gitignore, docs/man/Makefile.am, docs/stable-hcl.txt, docs/user-manual.txt, docs/website/.gitignore, docs/website/Makefile.am, docs/website/css/ie-overrides.css, docs/website/css/web-layout.css, docs/website/css/xhtml11-quirks.css, docs/website/css/xhtml11.css, docs/website/faviconnut.ico, docs/website/faviconnut.png, docs/website/news.txt, docs/website/old-news.txt, docs/website/projects.txt, docs/website/scripts/.gitignore, docs/website/scripts/filter\_png.js, docs/website/scripts/jquery.js, docs/website/scripts/nut\_query.js, docs/website/scripts/toc.js, docs/website/protocols.txt, docs/website/web-layout.conf, docs/website/website.txt, tools/Makefile.am, tools/nut-hclinfo.py: website: move to a standalone website

**2.1832 2014-01-31 Ronaldo Yamada <ryamada@gmail.com>**

- drivers/nutdrv\_qx.c: nutdrv\_qx: add new *sgs* USB subdriver to support TS Shara units

**2.1833 2014-01-31 Daniele Pezzini <hyouko@gmail.com>**

- docs/man/nutdrv\_qx.txt: nutdrv\_qx: update man page for new *sgs* USB subdriver

**2.1834 2014-01-18 Daniele Pezzini <hyouko@gmail.com>**

- docs/net-protocol.txt: docs: fix a couple of asciidoc errors in net-protocols.txt
  - server/netlist.c: net-protocol: fix closing line of LIST RANGE
-

**2.1835 2014-01-16 Charles Lepple <clepple+nut@gmail.com>**

- drivers/nutdrv\_atcl\_usb.c: nutdrv\_atcl\_usb: fix permissions-based crash, and enable vendor variable (1.1)

**2.1836 2014-01-13 Emilien Kia <EmilienKia@Eaton.com>**

- drivers/upsdrvctl.c: Fix Windows driver starting model and add comments.
- drivers/upsdrvctl.c: Add basic Windows wait for launch process. Wait for process return or timeout Look at returned code.

**2.1837 2014-01-13 Charles Lepple <clepple+nut@gmail.com>**

- .gitignore: Ignore cscope.out
- docs/man/.gitignore, docs/man/nutdrv\_atcl\_usb.txt, drivers/nutdrv\_atcl\_usb.c: nutdrv\_atcl\_usb: documentation and logging (v1.0)

**2.1838 2014-01-11 Daniele Pezzini <hyouko@gmail.com>**

- drivers/blazer\_ser.c, drivers/blazer\_usb.c: blazer: fix man page references
- data/driver.list.in: HCL: add Atlantis Land/Voltronic Power units supported by nutdrv\_qx
- drivers/nutdrv\_qx\_blazer-common.c, drivers/nutdrv\_qx\_blazer-common.h: nutdrv\_qx: fix nutdrv\_qx\_blazer-common.{c,h} header comments
- docs/man/nutdrv\_qx.txt, docs/nutdrv\_qx-subdrivers.txt: nutdrv\_qx: update manuals for new *voltronic-qs* subdriver

**2.1839 2014-01-11 Charles Lepple <clepple+nut@gmail.com>**

- drivers/apc-mib.c: snmp-ups: APC SmartBoost and SmartTrim are OL SmartBoost and SmartTrim are voltage regulation functions that prevent the UPS from using the battery during brownouts and overvoltages, so the BOOST and TRIM states are also mapped to OL. Reference: <http://article.gmane.org/gmane.comp.monitoring.nut.devel/6583>
- data/driver.list.in: [HCL] MicroDowell B.Box LP 500: genericups type 7 Closes [nut#83](#) From @lxp: UPS shutdown only works when on-battery and has a delay of about 1min until execution (something between 50sec to 1min 30sec on mine). References: <http://www.ezdirect.it/pdf/lp500.pdf> <https://forums.gentoo.org/viewtopic-t-730172-start-0.html>
- docs/man/nutdrv\_atcl\_usb.txt, drivers/nutdrv\_atcl\_usb.c: nutdrv\_atcl: match iManufacturer (vendor) string
- docs/man/snmp-ups.txt: snmp-ups: update and edit documentation

**2.1840 2014-01-01 Charles Lepple <clepple+nut@gmail.com>**

- drivers/nutdrv\_atcl\_usb.c: nutdrv\_atcl\_usb: adjusted logging and retries (v0.02)
- data/driver.list.in, docs/man/Makefile.am, docs/man/index.txt, docs/man/nutdrv\_atcl\_usb.txt: nutdrv\_atcl\_usb: man page and HCL entries

**2.1841 2013-12-31 Laurent Bigonville <bigon@bigon.be>**

- .gitignore, INSTALL ⇒ INSTALL.nut, Makefile.am, docs/FAQ.txt, docs/Makefile.am, docs/configure.txt, docs/packager-guide.txt, docs/user-manual.txt: Rename INSTALL to INSTALL.nut Rename it to INSTALL.nut so autoreconf will not try to overwrite it. In Debian tools like dh\_autoreconf calls autoreconf with -f which overwrite the INSTALL file.

**2.1842 2013-12-31 Charles Lepple <clepple+nut@gmail.com>**

- drivers/.gitignore, drivers/Makefile.am, drivers/nutdrv\_atcl\_usb.c, tools/nut-usbinfopl: nutdrv\_atcl\_usb: *ATCL FOR UPS* new driver Reference: [http://news.gmane.org/find-root.php?message\\_id=%3c52B4C54E.1050106%40ariwainer.com.ar%3e](http://news.gmane.org/find-root.php?message_id=%3c52B4C54E.1050106%40ariwainer.com.ar%3e)
- drivers/libusb.c, drivers/usb-common.h: Move USB\_TIMEOUT to usb-common.h

**2.1843 2013-12-27 Charles Lepple <clepple+nut@gmail.com>**

- scripts/subdriver/gen-usbhid-subdriver.sh: usbhid-ups: fix call to is\_usb\_device\_supported() The is\_usb\_device\_supported() function now takes a USBDevice\_t\* instead of a pair of USB ID values.

**2.1844 2013-12-22 Florian Bruhin <nut@the-compiler.org>**

- data/driver.list.in, docs/man/powercom.txt, drivers/powercom.c: Add OptiUPS VS 575C support to PowerCom Reference: [http://news.gmane.org/find-root.php?message\\_id=%3c20131126085646.GM28832%40lupin%3e](http://news.gmane.org/find-root.php?message_id=%3c20131126085646.GM28832%40lupin%3e)

**2.1845 2013-12-11 Denis Yantarev <denis.yantarev@gmail.com>**

- drivers/blazer\_usb.c, drivers/nutdrv\_qx.c: Fixed incorrectly reported Ippon response length

**2.1846 2013-12-05 Daniele Pezzini <hyouko@gmail.com>**

- drivers/Makefile.am, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx\_voltronic-qs.c, drivers/nutdrv\_qx\_voltronic-qs.h: nutdrv\_qx: add Voltronic-QS subdriver (nutdrv\_qx protocol=voltronic-qs) A subdriver using a protocol, specific to UPSes manufactured by Voltronic Power, based on the *mustek* one (i.e. *QS*).

**2.1847 2013-11-30 Daniele Pezzini <hyouko@gmail.com>**

- docs/man/nutdrv\_qx.txt, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx\_blazer-common.c, drivers/nutdrv\_qx\_blazer-common.h, drivers/nutdrv\_qx\_old.c, drivers/nutdrv\_qx\_mustek.c, drivers/nutdrv\_qx\_q1.c: nutdrv\_qx: fix *megatec/old* and *mustek* subdrivers' claim functions Address, for *megatec/old* and *mustek* subdrivers, the same problem fixed in commit 720975f4de910b270ba705a7f2981c2ee33ca2eb for Q1-based ones: - Make the claim function of *megatec/old* and *mustek* subdrivers not poll the UPS for *vendor* informations as they are not really needed to set these protocols apart from the other ones (i.e. the *status* poll is specific enough, at the time of writing). - Move common *light* claim function to nutdrv\_qx\_blazer-common.{c,h}. - Update manual. - Versioning.

**2.1848 2013-11-24 Daniele Pezzini <hyouko@gmail.com>**

- docs/nutdrv\_qx-subdrivers.txt: nutdrv\_qx: improve developer manual Get rid of useless tables. Fix minor errors/typos.
- drivers/nutdrv\_qx.c: nutdrv\_qx: versioning
- docs/man/nutdrv\_qx.txt, docs/nutdrv\_qx-subdrivers.txt: nutdrv\_qx: update manuals for new Q1 subdriver and improve readability

**2.1849 2013-11-23 Daniele Pezzini <hyouko@gmail.com>**

- drivers/Makefile.am, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx\_q1.c, drivers/nutdrv\_qx\_q1.h: nutdrv\_qx: add new *fallback* Q1 subdriver Add new *Q1* subdriver. This subdriver implements the same protocol as the one used by the *megatec* subdriver minus the vendor (I) and ratings (F) queries. In the claim function: - it doesn't even try to get *vendor* informations (I) - it checks only status (Q1), through *input.voltage* variable Therefore it should be able to work even if the UPS doesn't support vendor/ratings **and** the user doesn't use the *novendor/norating* flags, as long as: - the UPS replies a Q1-compliant answer (i.e.

not necessary filled with all of the Q1-required data, but at least of the right length and with not available data filled with some replacement character) - the UPS reports a valid input.voltage (used in the claim function) - the UPS reports valid status bits (1st, 2nd, 3rd, 6th, 7th are the mandatory ones) This commit reintroduces a functionality of the blazer subdrivers that was lost because now, in order to tell whether a device is supported by a subdriver or not, if the user doesn't call the driver with the *novendor* flag, both the status (Q1) and the vendor (I/FW?) queries are needed (that's to better discern the subdrivers). Reference: <http://lists.aliases.debian.org/pipermail/nut-upsuser/2013-November/008692.html>

## 2.1850 2013-11-23 Charles Lepple <clepple+nut@gmail.com>

- configure.in ⇒ configure.ac: Rename configure.in to configure.ac autoconf has been warning about this for a while - let's fix it before too many branches get created with the old name.
- configure.in: bump version to 2.7.1.5 Some packaging systems don't like the -pre# system.

## 2.1851 2013-11-21 Laurent Bigonville <bigon@bigon.be>

- docs/man/ups.conf.txt, docs/man/upsdrvctl.txt, drivers/upsdrvctl.c: Provide retry options for upsdrvctl and driver(s) As recently seen in Debian (bugs #694717 and #677143), it may be required to have upsdrvctl retrying to start the driver in case of failure. More specifically, a mix of init system (V and systemd), udev and USB device(s) can result in the /dev entry not being available at driver startup, thus resulting in a general failure to start NUT. This commit provides at least a way to overcome this issue. A more suitable solution will require more work on NUT design. This patch is based on Arnaud Quette proposal

## 2.1852 2013-11-20 Arnaud Quette <arnaud.quette@free.fr>

- Makefile.am: Maintainers targets: distribution signature / hashes Create some handy targets to ease and automate release publication

## 2.1853 2013-11-19 Charles Lepple <clepple+nut@gmail.com>

- configure.in: configure: update version to 2.7.1
- docs/website/news.txt: news: add 2.7.1 release
- Makefile.am: ChangeLog: use full path to generator script
- docs/website/projects.txt: website: update related project links

## 2.1854 2013-11-18 Kirill Smelkov <kirr@mns.spb.ru>

- MAINTAINERS, docs/man/.gitignore, docs/man/Makefile.am, docs/man/al175.txt, docs/man/index.txt, docs/man/nutupsdrv.txt, docs/new-drivers.txt, drivers/Makefile.am, drivers/al175.c: al175: updated driver, please restore it Back in 2005 I was young and idealistic, that's why you finally marked al175 as *broken*, but now I understand your points (some) and that in NUT you need good portability. So this time I've checked that al175 compiles with CC="gcc -std=c89 -pedantic", and CC="gcc -std=c99 -pedantic" Also, I've tried to clean-up the driver based on feedback from 2009, but unfortunately I no longer have hardware to test and will not have any in foreseeable future, so the driver was reworked to meet the project code quality criteria, without testing on real hardware. Some bugs may have crept in. Changes since last posting in 2009:
  - patch rebased on top of current master (v2.6.5-400-g214c442); - added reference to COMLI communication protocol document; - status decode errors go to log, instead of setting non-conformant status like "?T", "?OOST", etc. For such errors new loglevel is allocated; - "High Battery" status is back; - converted tracing macros to direct use of upsdebugx and numbers 1,2,3,4 for loglevels as requested (but now lines got longer because of explicit *func* usage); - lowered usage of other macros (e.g. REVERSE\_BITS inlined); - alarm(3) is not used anymore - instead whole I/O transaction time budget is maintained manually; - man page converted to asciidoc and supported variables list is merged into it; - upsdebug\_ascii moved to common.c and to separate patch. ~ Changes since al175 was removed from NUT tree in 2008: - alloca was eliminated through the help of automatic variables - debugging/tracing were reworked to (almost always) use NUT builtins

- al175 now uses 3 debug levels for (1=user-level info, 2=protocol debugging, 3=I/O tracing) - rechecked <http://eu1.networkupstools.org/doc/2.2.0/developers.html> and applied where appropriate Also > This driver does not support `upsdrv_shutdown()`, which makes > it not very useful in a real world application. This alone > warrants *experimental* status, but for the below mentioned > reasons (to name a few), it's flagged *broken* instead. Yes, at present shutdown is not supported, and unfortunately now I don't have AL175 hardware at hand, so that I can't write it and verify the implementation. I've marked the driver as `DRV_EXPERIMENTAL`, although it was tested by us as part of our systems to work OK for more than three years in production environment on ships (and we don't need shutdown there—in critical situations the system has to operate as long as possible, until the battery is empty) Also, all of the previous issues listed below are now fixed in this al175 version:
  - 'return' with a value, in function returning void (2x) - anonymous variadic macros were introduced in C99 - C++ style comments are not allowed in ISO C90 - ISO C forbids braced-groups within expressions (5x) - ISO C90 forbids specifying subobject to initialize (16x) - ISO C99 requires rest arguments to be used (18x) Yes, "All the world is not an x86 Linux box," and I've tried to make all the world happy. Please apply. Thanks, Kirill.
- `common/common.c`, `docs/developers.txt`, `include/common.h`: `common: upsdebug_ascii()` - to dump a message in ascii For debugging ASCII-based protocols with control characters (e.g. COMLI) it is handy to dump messages not in hex, but in ascii with human readable codes. Add utility function to do it.

## 2.1855 2013-11-18 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>

- NEWS: Minor reordering of the news

## 2.1856 2013-11-17 Charles Lepple <[clepple+nut@gmail.com](mailto:clepple+nut@gmail.com)>

- `docs/man/.gitignore`, `drivers/.gitignore`: `apcupsd-ups`: ignore generated files
- `drivers/apcupsd-ups.c`: `apcupsd-ups`: fix cut-n-paste error
- `drivers/apcupsd-ups.c`: `apcupsd-ups 0.04`: use `O_NONBLOCK` instead of `FIONBIO`
- NEWS, `docs/man/index.txt`: `apcupsd-ups`: add NEWS and man page link
- UPGRADING: Mention `upsrw` output change.
- `docs/man/nut-recorder.txt`: Reword `nut-recorder` man page
- UPGRADING: link to man pages for changed drivers
- `configure.in`: Bump version to 2.7.1-pre2
- NEWS, UPGRADING: Update NEWS and UPGRADING for 2.7.1 Closes: [networkupstools#37](#)
- `data/driver.list.in`: HCL: StarPower PCF-800VA Reported by Don. Reference: [http://news.gmane.org/find-root.php?message\\_id=%3c51b76b0c.1080109%40panozzo.it%3e](http://news.gmane.org/find-root.php?message_id=%3c51b76b0c.1080109%40panozzo.it%3e) Note that `blazer_usb` will eventually be replaced by `nutdrv_qx`.
- `clients/nutclient.h`, `clients/upsclient.c`, `conf/upsmon.conf.sample.in`, `configure.in`, `docs/FAQ.txt`, `docs/man/libnutclient.txt`, `docs/man/libnutclient_general.txt`, `docs/man/upsmon.conf.txt`, `docs/security.txt`, `drivers/powerman-pdu.c`, `server/netssl.c`: Replace *connexion* with *connection* in English contexts Also reworded a few phrases surrounding the replacements.
- `docs/man/.gitignore`: `asciidoc`: ignore all generated `blazer*.html` files
- `data/driver.list.in`: HCL: update CyberPower entries, including CP900AVR Reported by Craig Duttweiler Reference: [http://news.gmane.org/find-root.php?message\\_id=%3c51295f86.4080601%40twistedsanity.net%3e](http://news.gmane.org/find-root.php?message_id=%3c51295f86.4080601%40twistedsanity.net%3e)
- `docs/stable-hcl.txt`: GitHub issues can also be used to report HCL updates
- `docs/website/projects.txt`: Update links to related projects
- `docs/download.txt`: Update download page \* Re-added link to Buildbot snapshot generator \* Updated a few links



**2.1857 2013-11-13 Daniele Pezzini <hyouko@gmail.com>**

- docs/man/.gitignore, drivers/.gitignore: Add nutdrv\_qx to .gitignore files and remove voltronic from them

**2.1858 2013-11-13 Charles Lepple <clepple+nut@gmail.com>**

- drivers/blazer\_ser.c: windows\_port: remove conflict markers from blazer\_ser.c

**2.1859 2013-11-12 Daniele Pezzini <hyouko@gmail.com>**

- docs/man/nutdrv\_qx.txt: nutdrv\_qx: fix cross links in manpage Remove links to voltronic manuals. Fix links to blazer manuals.

**2.1860 2013-11-12 Charles Lepple <clepple+nut@gmail.com>**

- docs/man/Makefile.am: a2x: use --destination-dir This option seems to work now. Previously, AsciiDoc source files were copied to the destination directory, but this did not account for included files.
- .gitignore: git: ignore test-driver, and sort ignores list test-driver is apparently part of automake, generated for libcpp unit tests.

**2.1861 2013-11-10 Daniele Pezzini <hyouko@gmail.com>**

- clients/upsrw.c: upsrw: publish also the maximum length of STRING rw variables

**2.1862 2013-11-10 Charles Lepple <clepple+nut@gmail.com>**

- docs/man/Makefile.am: Include blazer-common.txt in built tarball

**2.1863 2013-11-09 Daniele Pezzini <hyouko@gmail.com>**

- docs/website/scripts/nut\_jquery.js: HCL: Improve readability of nut\_jquery.js
  - docs/website/scripts/nut\_jquery.js: HCL: make support-level filter show items with a *higher or equal* level Reference: <https://github.com/networkupstools/nut/issues/48#issuecomment-28134135>
  - data/driver.list.in: nutdrv\_qx: readd HCL's items lost with the revert of the voltronic merge
  - data/driver.list.in: nutdrv\_qx: remove superfluous indications from the HCL
  - data/driver.list.in, docs/Makefile.am, docs/man/Makefile.am, docs/man/index.txt, docs/man/{blzr.txt ⇒ nutdrv\_qx.txt}, docs/man/nutupsdrv.txt, docs/new-drivers.txt, ... lzh-subdrivers.txt ⇒ nutdrv\_qx-subdrivers.txt}, drivers/Makefile.am, drivers/{blzr.c ⇒ nutdrv\_qx.c}, drivers/{blzr.h ⇒ nutdrv\_qx.h}, ... r\_blazer-common.c ⇒ nutdrv\_qx\_blazer-common.c}, ... r\_blazer-common.h ⇒ nutdrv\_qx\_blazer-common.h}, drivers/{blzr\_mecer.c ⇒ nutdrv\_qx\_mecer.c}, drivers/{blzr\_mecer.h ⇒ nutdrv\_qx\_mecer.h}, ... {blzr\_megatec-old.c ⇒ nutdrv\_qx\_megatec-old.c}, ... {blzr\_megatec-old.h ⇒ nutdrv\_qx\_megatec-old.h}, drivers/{blzr\_megatec.c ⇒ nutdrv\_qx\_megatec.c}, drivers/{blzr\_megatec.h ⇒ nutdrv\_qx\_megatec.h}, drivers/{blzr\_mustek.c ⇒ nutdrv\_qx\_mustek.c}, drivers/{blzr\_mustek.h ⇒ nutdrv\_qx\_mustek.h}, .../{blzr\_voltronic.c ⇒ nutdrv\_qx\_voltronic.c}, .../{blzr\_voltronic.h ⇒ nutdrv\_qx\_voltronic.h}, drivers/{blzr\_zinto.c ⇒ nutdrv\_qx\_zinto.c}, drivers/{blzr\_zinto.h ⇒ nutdrv\_qx\_zinto.h}, tools/nut-usbinfo.pl: nutdrv\_qx: rename *blzr* driver to *nutdrv\_qx* Reference: <http://lists.alioth.debian.org/pipermail/nut-upsdev/2013-November/006555.html>
  - docs/stable-hcl.txt, docs/website/css/web-layout.css: Address Issue #48 (text-based browsers) Reference: <https://github.com/networkupstools/nut/issues/48#issuecomment-28107101>
-

**2.1864 2013-11-08 Arnaud Quette <arnaud.quette@free.fr>**

- docs/website/projects.txt: Cleanup NUT related projects

**2.1865 2013-11-04 Daniele Pezzini <hyouko@gmail.com>**

- drivers/blzr\_voltronic.c: blzr: Fix log message
- drivers/blzr\_voltronic.c: blzr: Fix compile-time error Reference: <http://lists.aliases.debian.org/pipermail/nut-upsdev/2013-November/006549.html>
- drivers/blzr\_blazer-common.c, drivers/blzr\_blazer-common.h: blzr: Fix blzr\_blazer-common.{c,h} header comments

**2.1866 2013-11-04 Charles Lepple <clepple+nut@gmail.com>**

- include/Makefile.am: nut\_include.h: fail gracefully if git fails Fix proposed by Jim Klimov.

**2.1867 2013-11-03 Charles Lepple <clepple+nut@gmail.com>**

- data/driver.list.in, docs/man/.gitignore, docs/man/Makefile.am, docs/man/index.txt, docs/man/voltronic\_ser.txt, docs/man/voltronic\_usb.txt, drivers/Makefile.am, drivers/voltronic.c, drivers/voltronic.h, drivers/voltronic\_ser.c, drivers/voltronic\_usb.c, tools/nut-usbinfop.pl: Revert "Merge branch *voltronic-driver*" This reverts commit de07fc7f5e7f68b91507b2bf3d4d3b92b774c3ed, reversing changes made to a074844f88ca352780dd881b5fa3c435832d165e. The voltronic functionality will be a subdriver of the new blazer driver.
- docs/stable-hcl.txt: HCL: typos
- data/driver.list.in, docs/stable-hcl.txt: HCL: minor cleanup Remove a duplicate Tripp Lite entry, and add a missing "a".
- docs/stable-hcl.txt: HCL documentation: reword
- data/driver.list.in, docs/acknowledgements.txt: HCL: incorporate Tripp Lite test results Source: <http://article.gmane.org/gmane.comp.monitoring.nut.user/8173>
- docs/Makefile.am, docs/website/Makefile.am: HCL: additional dependencies Apparently still not complete, though.
- docs/website/scripts/nut\_jquery.js: HCL JavaScript: make key case-insensitive Also special-case the spelling change for Tripp Lite. TODO: make the value matching case-insensitive as well.
- docs/website/scripts/nut\_jquery.js: HCL JavaScript: update the USB-matching code Slightly more accurate, but later on we should really track the connection type as a first-class attribute for each entry in the HCL. Matching the driver name is brittle.
- docs/website/scripts/nut\_jquery.js, tools/nut-hclinfo.py: HCL generation: don't combine driver names The Python and JavaScript code for generating the HCL was combining adjacent drivers even when the support level was different. This clutters up the driver list a bit, but presents a more accurate picture of support levels.

**2.1868 2013-10-28 Michal Soltys <soltys@ziu.info>**

- docs/man/apcsmart.txt: apcsmart: minor man update A short note about availability of apcsmart-old.
- docs/man/apcsmart.txt, drivers/apcsmart.c, drivers/apcsmart.h: apcsmart: string/comment/text trivial changes

**2.1869 2013-10-27 Charles Lepple <clepple+nut@gmail.com>**

- tools/nut-scanner/nutscan-device.c: [nut-scanner] Remove unused variable
-



**2.1870 2013-10-26 Charles Lepple <clepple+nut@gmail.com>**

- configure.in: Define `_REENTRANT` for all Solaris and AIX platforms. This is essentially the final commit in [pull request #39](#).

**2.1871 2013-10-25 Daniele Pezzini <hyouko@gmail.com>**

- drivers/blazer.c: blazer: Support UPSes that reply (*ACK* when an instant command succeeds
- drivers/blazer.c: blazer: Fix a discrepancy in the handling of instant commands Check if the reply we got back from the UPS is *ACK* also for the commands stored in the array.
- drivers/blzr.c: blzr: Cosmetic changes
- drivers/blzr\_megatec-old.c, drivers/blzr\_megatec.c, drivers/blzr\_mustek.c, drivers/blzr\_zinto.c: blzr: Remove duplicates in the testing struct
- docs/blzr-subdrivers.txt, docs/man/blzr.txt, drivers/Makefile.am, drivers/blzr.c, drivers/blzr\_mecer.c, drivers/blzr\_mecer.h: blzr: Add Mecer subdriver (blzr protocol=mecer) A subdriver covering an idiom similar to the one used by the megatec subdriver, but with these peculiarities: - if a command/query is rejected or invalid, the UPS will reply (*NAK*) - if a command succeeds, the UPS will reply (*ACK*)

**2.1872 2013-10-24 Frédéric BOHE <fredericbohe@eaton.com>**

- drivers/mge-hid.c: Fix wrong OFF status reported when on battery. `UPS.BatterySystem.Charger.PresentStatus.Used` is not related to UPS outputs being on or off but rather to the charger being on or off.

**2.1873 2013-10-18 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- tools/nut-scanner/nutscan-device.c, tools/nut-scanner/nutscan-device.h, tools/nut-scanner/nutscan-display.c, tools/nut-scanner/scan\_nutscan.c: Nutscan fix and enhancement Closes [#60](#) (GitHub Pull Request via fbohe)
- docs/man/netxml-ups.txt, drivers/mge-xml.c, drivers/mge-xml.h, drivers/netxml-ups.c: netxml: added RW access, fixed FSD/shutdown duration bugs, etc. \* Fixed bugs in resolution of FSD condition and computation of shutdown duration. \* Added System.\* UPS variables. \* Enabled RW access to appropriate UPS variables. \* Added UPS variables value convertors. \* Added support for XML protocol v3 {GET|SET}\_OBJECT query implementing getvar and setvar routines. \* netxml driver man page updated to include info about the driver-specific configuration parameters. Closes [#59](#) (GitHub pull request: "Enhancement for netxml driver") Pull request by: Frédéric BOHE <fredericbohe@eaton.com>
- clients/upsc.c, clients/upscmd.c, clients/upslog.c, clients/upsrw.c: Fix AIX linkage of `do_upsconf_args()` Closes [#58](#) (GitHub pull request "Fix AIX build") (cherry picked from commit 5fc7518f97d2738d791c3c77f2257d05e3a9da3b)

**2.1874 2013-10-17 Daniele Pezzini <hyouko@gmail.com>**

- docs/man/blazer-common.txt: blazer: Cosmetic changes
  - drivers/blazer\_ser.c, drivers/blazer\_usb.c: blazer: Fix `blazer_{ser,usb} \+ TESTING` Those things are useless when `TESTING` is defined
  - docs/man/blazer-common.txt: blazer: Fix user manuals {Serial,USB}-specific sections belong to *Extra arguments* section
  - drivers/blazer\_ser.c, drivers/blazer\_usb.c: blazer: Versioning
  - drivers/blazer.c: blazer: Add more log infos in `instcmd`
  - docs/blzr-subdrivers.txt: blzr: Improve developer manual Add note on how to group items in `blzr2nut` array.
  - drivers/blzr\_voltronic.c: blzr: Fix switch/case Forgot to break at the end of the case
  - docs/man/blzr.txt, drivers/blzr.c, drivers/blzr\_voltronic.c: blzr: Cosmetic changes
-

**2.1875 2013-10-16 Frédéric BOHE <fredericbohe@eaton.com>**

- drivers/powerware-mib.c, drivers/snmp-ups.c, drivers/snmp-ups.h: Fix Low Battery detection with ConnectUPS cards The low battery OID itself cannot be read directly. Low battery alarms OID appears in an alarm array.

**2.1876 2013-10-16 Daniele Pezzini <hyouko@gmail.com>**

- docs/man/Makefile.am, docs/man/{blazer.txt ⇒ blazer-common.txt}, docs/man/blazer\_ser.txt, docs/man/blazer\_usb.txt, docs/man/index.txt, docs/man/nutupsdrv.txt: blazer: Fix {usb,ser} manual Split the old blazer manual in two manuals named after their executables with a common source.
- docs/man/blazer.txt: blazer: Fix user manual Fix minor errors Add ranges Fix test.battery.start (i.e. minutes instead of seconds)
- drivers/blazer.c: blazer: Fix shutdown sequence Split stop pending shutdown and shutdown itself so that if we have problems stopping the shutdown (e.g. there's no shutdown pending and the UPS, because of that, echoes back the command) we can still shutdown the UPS.
- drivers/blazer.c: blazer: Fix minor error in battery guesstimation We need both battery.voltage.low and battery.voltage.high to *guesstimate* the battery charge
- drivers/blazer.c: blazer: Fix test.battery.start T00 doesn't make any sense: the range should be 01-99 minutes
- drivers/blazer.c: blazer: Fix shutdown.return *SnR0000* is meant to put the UPS down and not return *Sn* should be used instead when ondelay is 0
- drivers/blazer.c: blazer: Fix shutdown delay *offdelay* as used by this driver is meant to be in the .2-.9 (12..54 seconds) and 01-10 (60..600 seconds) range.
- data/driver.list.in, docs/Makefile.am, docs/blzr-subdrivers.txt, docs/man/Makefile.am, docs/man/blzr.txt, docs/man/index.txt, docs/man/nutupsdrv.txt, docs/new-drivers.txt, drivers/Makefile.am, drivers/blzr.c, drivers/blzr.h, drivers/blzr\_blazer-common.c, drivers/blzr\_blazer-common.h, drivers/blzr\_megatec-old.c, drivers/blzr\_megatec-old.h, drivers/blzr\_megatec.c, drivers/blzr\_megatec.h, drivers/blzr\_mustek.c, drivers/blzr\_mustek.h, drivers/blzr\_voltronic.c, drivers/blzr\_voltronic.h, drivers/blzr\_zinto.c, drivers/blzr\_zinto.h, drivers/dstate-hal.c, drivers/dstate-hal.h, tools/nut-usbinfo.pl: blzr: New driver *blzr* New driver for Q\* UPSes. Based on blazer, usbhid-ups and voltronic driver. This might address Issue #25
- scripts/python/Makefile.am, scripts/python/app/gui-1.3.glade, .../app/locale/it/LC\_MESSAGES/NUT-Monitor.mo, scripts/python/app/locale/it/it.po, scripts/python/app/nut-monitor.desktop: Add italian translation
- scripts/python/app/locale/fr/fr.po: Add source of french translation
- scripts/python/app/gui-1.3.glade.h, scripts/python/app/locale/NUT-Monitor.pot: Add translation sources

**2.1877 2013-10-04 Frédéric BOHE <fredericbohe@eaton.com>**

- clients/upssched.c: Fix Linux compilation

**2.1878 2013-10-04 Frederic BOHE <fredericbohe@eaton.com>**

- include/common.h, server/sstate.c, server/upsd.c: Fix weird difftime behavior

**2.1879 2013-10-03 Frederic BOHE <fredericbohe@eaton.com>**

- INSTALL.nut, clients/Makefile.am, clients/message.c, clients/nutclient.cpp, clients/upscclient.c, clients/upslog.c, clients/upsmon.c, clients/upssched.c, common/snprintf.c, drivers/clone.c, drivers/libhid.h, drivers/libshut.h, drivers/serial.c, drivers/serial.h, drivers/snmp-ups.h, drivers/usbhid-ups.c, drivers/usbhid-ups.h, include/common.h, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http.c: Try to get rid of warnings

- .gitignore, scripts/Windows/.gitignore, scripts/Windows/Installer/.gitignore, scripts/Windows/Installer/ImageFiles/Others/.gitignore: Update gitignore for Windows
- drivers/Makefile.am: Remove useless link to intl which break compilation on Linux
- clients/Makefile.am, common/Makefile.am, common/wincompat.c, drivers/Makefile.am, drivers/apcsmart.c, drivers/dstate.c, drivers/netxml-ups.c, drivers/riello\_usb.c, drivers/serial.c, drivers/serial.h, drivers/upsdrvctl.c, scripts/Windows/Installer/NUT-Installer.xml, scripts/Windows/wininit.c, server/ssstate.c, server/upsd.c, tools/nut-scanner/Makefile.am, tools/nut-scanner/nutscan-serial.c, tools/nut-scanner/scan\_eaton\_serial.c: Fix compilation on Windows

## 2.1880 2013-10-02 Frédéric BOHE <fredericbohe@eaton.com>

- data/driver.list.in: [HCL] update Eaton UPS

## 2.1881 2013-10-02 Arnaud Quette <arnaud.quette@free.fr>

- data/driver.list.in: [HCL] Add support for Eaton 5S Add Eaton 5S (USB ID 0x0463:0xffff) to the list of usbhid-ups supported models (reported by Matt Ivie)

## 2.1882 2013-09-30 Frédéric BOHE <fredericbohe@eaton.com>

- drivers/libshut.c: Increment driver revision

## 2.1883 2013-09-28 Alf Høgemark <alf@i100.no>

- drivers/bcmxcp.c: bcmxcp: Fix handling of date and time format The date and time bytes are packed BCD, so it must be properly decoded. The check for the Julian or Month:Day format was wrong Info on format taken from [http://old.networkupstools.org/-protocols/eaton/XCP\\_Rev\\_C1\\_Public\\_021309.pdf](http://old.networkupstools.org/-protocols/eaton/XCP_Rev_C1_Public_021309.pdf)
- drivers/bcmxcp.c, drivers/bcmxcp.h: bcmxcp: Add mapping for some more meters and one more command Add mapping for PW\_SET\_TIME\_AND\_DATE command. Add mapping for input.bypass.voltage, input.bypass.L1-N.voltage, input.bypass.L2-N.voltage, input.bypass.L3-N.voltage. Add mapping for input.bypass.frequency. Add mapping for ups.power.nominal if provided as meter, it was previously only set on init. Change mapping for ups.realpower for single phase. Tested on Eaton PW9130.
- drivers/bcmxcp.c: bcmxcp: Remove newline on debug output for outlets

## 2.1884 2013-09-27 unknown <C9983617@GREFRWHP6009826.euro.ad.etn.com>

- clients/Makefile.am: Fix upsclient link after rebase

## 2.1885 2013-09-26 Frédéric BOHE <fredericbohe@eaton.com>

- Makefile.am, clients/upsclient.c, clients/upsmon.c, clients/upsmon.h, clients/upssched.c, common/Makefile.am, common/common.c, common/wincompat.c, docs/Makefile.am, docs/configure.txt, drivers/apc-mib.c, drivers/apcsmart.c, drivers/bcmxcp\_usb.c, drivers/belkinunv.c, drivers/bestuferrups.c, drivers/clone-outlet.c, drivers/clone.c, drivers/dstate.c, drivers/genericups.c, drivers/isbmex.c, drivers/main.c, drivers/nut-libfreeipmi.c, drivers/serial.c, drivers/serial.h, drivers/upsdrvctl.c, include/common.h, include/wincompat.h, scripts/Windows/README, scripts/Windows/wininit.c, server/conf.c, server/netssl.c, server/ssstate.c, server/upsd.c, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-init.c, tools/nut-scanner/scan\_avahi.c, tools/nut-scanner/scan\_tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_usb.c, tools/nut-scanner/scan\_xml\_http.c: More changes after rebase
  - scripts/Windows/DriverInstaller/nutscan-usb.h: Some fixes after rebase
-

**2.1886 2013-09-24 Frédéric BOHE <fredericbohe@eaton.com>**

- drivers/libshut.c, tools/nut-scanner/scan\_eaton\_serial.c: Change RTS init level for PnP devices Setting RTS line to 1 disturbs communication with some devices using serial plug and play feature. So we need to initialize it to 0.

**2.1887 2013-09-07 Arnaud Quette <arnaud.quette@free.fr>**

- data/driver.list.in: Add support for Forza FX-1500LCD Add Forza FX-1500LCD (USB ID 0x0665:0x5161) to the list of blazer\_usb supported models (reported by Gabor Tjong A Hung)
- data/driver.list.in: Add Schneider APC AP9630 SNMP management card Add Schneider APC AP9630 SNMP management card to the list of snmp-ups supported models. Note that it requires the option "privProtocol=AES" to work (reported by Tim Rice)
- drivers/.gitignore: Git ignore drivers/voltronic\_{ser,usb} Add drivers/voltronic\_{ser,usb} to the list of Git ignored files

**2.1888 2013-08-28 Daniele Pezzini <hyouko@gmail.com>**

- docs/website/css/web-layout.css: Improve CSS readability
- docs/stable-hcl.txt, docs/website/css/web-layout.css: Address Issue #48 Move legend out of filters' block. (HTML+CSS)

**2.1889 2013-08-28 Charles Lepple <clepple+nut@gmail.com>**

- packaging/RedHat/.gitignore, packaging/debian/.gitignore, packaging/mandriva/.gitignore, packaging/opensuse/.gitignore: Remove .gitignore files from long-gone packaging directory.

**2.1890 2013-08-10 Alf Høgemark <alf@i100.no>**

- drivers/bcmxcp.c: bcmxcp: Add instcmd for system test capabilities based on what UPS support

**2.1891 2013-08-09 Alf Høgemark <alf@i100.no>**

- drivers/bcmxcp.c, drivers/bcmxcp.h: bcmxcp: Code restructure, declare variables at top of method After re-reading code style, compiled with -pedantic, and got some warnings, so moved variable declarations to the top of methods
- drivers/bcmxcp.c, drivers/bcmxcp\_io.h, drivers/bcmxcp\_ser.c, drivers/bcmxcp\_usb.c: bcmxcp: Reformat code, remove tabs in the middle of lines. No code changes After re-reading the developer code style guide, use spaces and not tabs in the middle of lines to align text
- drivers/bcmxcp.h: bcmxcp: Reformat code, remove tabs in the middle of lines. No code changes After re-reading the developer code style guide, use spaces and not tabs in the middle of lines to align text
- drivers/bcmxcp.c: bcmxcp: Refactor code, use if-else if rather than 4 if statements

**2.1892 2013-08-08 Alf Høgemark <alf@i100.no>**

- drivers/bcmxcp.c: bcmxcp: Add parameter to nut\_find\_infoval to control debug output We do not want debug output if nut\_find\_infoval does not find a mapped value in all cases. For example, when a command byte is not mapped to a instcmd, we do not want debug output.
  - drivers/bcmxcp.c, drivers/bcmxcp.h: bcmxcp: Remove PW\_UPDATE\_POWER\_SOURCE\_STATUS\_COMMAND, it seems very unlikely to be used
  - drivers/bcmxcp.h: bcmxcp: Cosmetic changes constant definitions. No code changes.
-

- drivers/bcmxcp.c, drivers/bcmxcp.h: bcmxcp: Use command map to control which instcmd are supported Use the command map info retrieved from UPS to list all commands supported by the UPS at debug level 2. Use the info from command map to set up which instcmd the UPS supports.
- drivers/bcmxcp.c: bcmxcp: Use info\_lkp\_t structure for mapping topology info Make code simpler by using the info\_lkp\_t structure for mapping value from topology block to text presented to user as ups.description
- drivers/bcmxcp.c: bcmxcp: Cosmetic commentary fixes and remove some empty lines. No code changes
- drivers/bcmxcp.c: bcmxcp: Output unsupported alarms on debug level 3, not level 2 The supported alarms in alarm map is outputted at debug level 2. The unsupported alarms should be outputted at debug level 3, it is not that interesting. Also remove debug outputted empty line after table heading line for meter map and alarm map.
- drivers/bcmxcp.c: bcmxcp: Refactor code for setting which alarms are supported, to avoid code duplication Refactor the code which checks the alarm map for supported alarms, by making a new method which checks the alarm bit to see if the alarm is supported.
- drivers/bcmxcp.c: bcmxcp: Only include ups.serial and device.part if they have a value Only set info about ups.serial and device.part if the UPS actually report useful info for these. Remove the handling of space characters as meaning string termination for ups.serial, this is not done for part number, and according to bcmxcp spec are these both 16 byte ascii text messages. Move Nominal output frequency handling up, placing it just below Nominal output voltage

#### 2.1893 2013-08-04 Charles Lepple <clepple+nut@gmail.com>

- docs/man/index.txt, docs/man/voltronic\_ser.txt, docs/man/voltronic\_usb.txt: voltronic\* documentation updates - Add to man page index - Reword a few sections - Fix typos - Comment out USB section in voltronic\_ser.txt Long-term, we should probably figure out a better way to maintain two parallel driver pages like this. The blazer man page is the same for both, with .so links for the man pages, but then you have USB info in a serial driver page. For now, voltronic\_usb.txt is just a copy of voltronic\_ser.txt with a few \_ser-to-\_usb replacements.

#### 2.1894 2013-08-01 Daniele Pezzini <hyouko@gmail.com>

- drivers/voltronic.c: Get rid of *god.knows* variables

#### 2.1895 2013-07-26 Arnaud Quette <arnaud.quette@free.fr>

- drivers/powercom-hid.c: Forgotten subdriver version bump

#### 2.1896 2013-07-25 Arnaud Quette <arnaud.quette@free.fr>

- docs/man/upsc.txt, docs/man/upscmd.txt, docs/man/upsrw.txt: Complete upsclient commands usage note Add a note for scripting usage, for upsc, upscmd and upsrw, to state the obvious: only consider the output from stdout for data requested. stderr may contain error messages, which can disrupt your script execution. Address the second task and closes Github [issue #30](#)
- clients/upsclient.c: Fix a minor regression in upsclient output NSS support has introduced a minor regression in upsclient output. Clients such as upsc, upscmd and upsrw were particularly affected. This patch restores a default behavior similar to prior versions. However, "-v" option remains to be implemented. Address the first task of Github [issue #30](#)

#### 2.1897 2013-07-24 Frédéric BOHE <fredericbohe@eaton.com>

- configure.in: Fix wrong errno reported by connect on Solaris Closes [issue #43](#)
  - clients/upsclient.c: Fix connect in multi-threaded environnement on AIX Closes [issue #42](#)
-

**2.1898 2013-07-24 Charles Lepple <clepple+nut@gmail.com>**

- docs/website/web-layout.conf: Add GitHub link to website sidebar

**2.1899 2013-07-23 Frédéric BOHE <fredericbohe@eaton.com>**

- clients/upscli.c: Fix nut-scanner crash on nut server scan, upscli\_sslinit calls upscli\_readline which might calls upscli\_disconnect in case of error. upscli\_disconnect frees ups→host and set it to NULL, so it is illegal to use ups→host after a call to upscli\_sslinit.
- clients/Makefile.am: Fix connect in multi-thread environnement on Solaris
- tools/nut-scanner/nutscan-device.c, tools/nut-scanner/nutscan-device.h, tools/nut-scanner/scan\_avahi.c, tools/nut-scanner/scan\_eaton, tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_usb.c, tools/nut-scanner/scan\_xml\_http.c: [nut-scanner] Make sure to return the first device of the list.

**2.1900 2013-07-23 Charles Lepple <clepple+nut@gmail.com>**

- clients/Makefile.am: Revert "Fix connect in multi-thread environnement on Solaris" This reverts the previous commit. It overwrites the CFLAGS which specifies one of the key include directories.

**2.1901 2013-07-22 Charles Lepple <clepple+nut@gmail.com>**

- docs/download.txt: Download information: reference Git
- configure.in: Bump NUT version to 2.7.1-pre1

**2.1902 2013-07-21 Charles Lepple <clepple+nut@gmail.com>**

- include/Makefile.am: nut\_version.h: trim tag characters through first slash

**2.1903 2013-07-16 Sven Putteneers <sven.putteneers@gmail.com>**

- scripts/python/app/NUT-Monitor: NUT-Monitor: parse battery.runtime as float Without this patch, I get a flood of "Invalid literal for int with base 10: '28500.00'" errors. [http://news.gmane.org/find-root.php?message\\_id=%3c51E54B99.9030908%40gmail.com](http://news.gmane.org/find-root.php?message_id=%3c51E54B99.9030908%40gmail.com)

**2.1904 2013-07-10 Arnaud Quette <arnaud.quette@free.fr>**

- docs/website/news.txt, docs/website/projects.txt: Reference walNUT Gnome Shell extension

**2.1905 2013-07-09 Elio Parisi <E.Parisi@riello-ups.com>**

- drivers/riello.h, drivers/riello\_ser.c, drivers/riello\_usb.c: riello: whitespace fixes, and read nominal values only once Bumped driver versions to 0.02

**2.1906 2013-07-09 Charles Lepple <clepple+nut@gmail.com>**

- drivers/riello\_ser.c, drivers/riello\_usb.c: riello: suppress some warnings about %lu versus %u
-

**2.1907 2013-07-07 Alf Høgemark <alf@i100.no>**

- drivers/bcmxcp.c, drivers/bcmxcp.h: bcmxcp: Add support for reading topology map and setting ups.description based on it
- drivers/bcmxcp.c: bcmxcp: Initialize variables in calculate\_ups\_load method
- drivers/bcmxcp.c: bcmxcp: Output more info hardware capabilities in debug mode Add some more debug output on driver init, to let us know what the hardware support. Outputs length of alarm history log, topology block length and maximum supported command length.
- drivers/bcmxcp.c, drivers/bcmxcp.h: bcmxcp: Add mapping for input.quality to meters
- drivers/bcmxcp.c: bcmxcp: Add Alf Høgemark as one of the authors for the driver
- drivers/bcmxcp.c: bcmxcp: Only calculate ups.load if the UPS does not report it directly If the UPS does not report a meter mapped to ups.load, we try to calculate the ups.load, but we do not calculate it if the UPS can report the ups.load directly
- drivers/bcmxcp.c: bcmxcp: Use defined constants in setvar, and handle BCMXCP\_RETURN\_ACCEPTED\_PARAMETER\_ADJUST Use the defined constants from header file, instead of magic numbers in setvar method. Add handling of BCMXCP\_RETURN\_ACCEPTED\_PARAMETER\_ADJUST Report upsdrv\_comm\_good on successful execution of setvar to UPS.
- drivers/bcmxcp.c, drivers/bcmxcp.h: bcmxcp: Add handling of BCMXCP\_RETURN\_ACCEPTED\_PARAMETER\_ADJUST and others in ACK block Add support for handling more return statuses when executing commands, the most important being BCMXCP\_RETURN\_ACCEPTED\_PARAMETER\_ADJUST, which means the command was executed. The others added all handles cases where command was not executed, but you now get a more detailed entry in log as to why it was not executed.
- drivers/bcmxcp.c, drivers/bcmxcp.h: bcmxcp: Add mapping for output.L<phase>.power to meters Not tested on hardware, due to lack of hardware supporting it
- drivers/bcmxcp.c, drivers/bcmxcp.h: bcmxcp: Add mapping for battery.current.total to meters Not tested on hardware, due to lack of hardware supporting it

**2.1908 2013-07-06 Alf Høgemark <alf@i100.no>**

- drivers/bcmxcp.c, drivers/bcmxcp.h: bcmxcp: Add mapping for input.realpower to meters input.realpower is not listed in <http://www.networkupstools.org/docs/developer-guide.chunked/apas01.html>, but other drivers use it. Not tested on hardware, due to lack of hardware supporting it
- drivers/bcmxcp.c, drivers/bcmxcp.h: bcmxcp: Add mapping for ambient.1.temperature to meters Not tested on hardware, due to lack of hardware supporting it
- drivers/bcmxcp.c, drivers/bcmxcp.h: bcmxcp: Add mapping for input.power to meters input.power is not listed in <http://www.networkupstools.org/docs/developer-guide.chunked/apas01.html>, but other drivers use it. Not tested on hardware, due to lack of hardware supporting it
- drivers/bcmxcp.c, drivers/bcmxcp.h: bcmxcp: Add mapping for output.powerfactor and input.powerfactor to meters input.powerfactor is not listed in <http://www.networkupstools.org/docs/developer-guide.chunked/apas01.html>, so a bit unsure if this should be added. Not tested on hardware, due to lack of hardware supporting it
- drivers/bcmxcp.c, drivers/bcmxcp.h: bcmxcp: Add mapping for output.L<phase>.power.percent to meters Not tested on hardware, due to lack of hardware supporting it
- drivers/bcmxcp.c, drivers/bcmxcp.h: bcmxcp: map ups.date and ups.time to meters. Not tested on hardware, due to lack of hardware supporting it
- drivers/bcmxcp.h: bcmxcp: Comment which meter map constants are mapped to nut variables

**2.1909 2013-07-05 Alf Høgemark <alf@i100.no>**

- drivers/bcmxcp.c, drivers/bcmxcp.h: bcmxcp: Add constants for all bcmxmp meter map, and replace magic numbers with constants Take all the bcmxcp meter map defined in [http://old.networkupstools.org/protocols/eaton/XCP\\_Meter\\_Map\\_021309.pdf](http://old.networkupstools.org/protocols/eaton/XCP_Meter_Map_021309.pdf) and put them into the bcmxcp.h file. Update the bcmxcp.c file, replacing magic numbers for meter map by using the corresponding defined constant.



**2.1910 2013-07-04 Alf Høgemark <alf@i100.no>**

- drivers/bcmxcp.c: bcmxcp: Let decode\_instcmd\_exec also handle short read from UPS
- drivers/bcmxcp.c: bcmxcp: Add test.panel.start instcmd support
- drivers/bcmxcp.c: bcmxcp: Use one fuction to decode command execution status in all places To avoid duplicating the logic which checks the status of command execution at UPS, add a new function which contains the check, and use that function whenever we send a command to UPS and get status back from UPS.
- drivers/bcmxcp.c, drivers/bcmxcp.h: bcmxcp: Define byte for choosing which system test to run in header file
- drivers/bcmxcp.c: bcmxcp: Fix outlet number for outlet.x.shutdown.return if more than 2 outlets
- drivers/bcmxcp.c: bcmxcp: Let upsdry\_shutdown call instcmd for shutting down To avoid code duplication between upsdry\_shutdown and instcmd, let the upsdry\_shutdown method first try to issue a shutdown.return instcmd, and then proceed with shutdown.stayoff if the shutdown.return failed. This seems to be in line with what the usbhid driver does.
- drivers/bcmxcp.c: bcmxcp: report upsdry\_comm\_good at successful execution of instcmd
- drivers/bcmxcp.c: bcmxcp: Return more specific error codes from instcmd Use the available STAT\_INSTCMD\_FAILED and STAT\_INSTCMD\_INVALID as return value from the instcmd method when applicable, instead of always returning STAT\_INSTCMD\_UNKNOWN or -1.

**2.1911 2013-07-03 Charles Lepple <clepple+nut@gmail.com>**

- drivers/bcmxcp.c: bcmxcp: indentation fixes (no code changes)

**2.1912 2013-07-03 Alf Høgemark <alf@i100.no>**

- drivers/bcmxcp.c, drivers/bcmxcp.h: bcmxcp: use command map if supplied. If UPS supplies command map, use it to control what commands we register with dstate\_addcmd. If UPS does not supply command map, we register default commands with dstate\_addcmd
- data/cmdvartab, drivers/bcmxcp.c: bcmxcp: cosmetic: make changes by Prachi Gandhi more coherent with rest of driver
- drivers/bcmxcp.c: bcmxcp: Fix method name outputted in debug message Reference: <http://article.gmane.org/gmane.comp.monitoring.6458> Whitespace was addressed in previous commit (clepple)
- drivers/bcmxcp.c: bcmxcp: add ups.load and battery.voltage.low Adapted slightly for bcmxcp branch (original patch was against master). Bump driver version to 0.28 as well. (clepple) Reference: <http://article.gmane.org/gmane.comp.monitoring.nut.devel/6460>

**2.1913 2013-06-18 Daniele Pezzini <hyouko@gmail.com>**

- drivers/voltronic.c: Add unknown/unused and commented capability entries Might be useful for future versions.
  - data/driver.list.in: Add devices to HCL
  - drivers/voltronic.c, drivers/voltronic\_ser.c, drivers/voltronic\_usb.c: Fix warning flag \+ versioning Some UPSes seem to reply with a \0 just before the end of the warning flag (obtained with QWS), as a consequence of that, the string in C is 1 char shorter than expected (the \r is not within the string). → Fix voltronic\_warning function. Increase driver versions.
  - drivers/voltronic.c, drivers/voltronic\_ser.c, drivers/voltronic\_usb.c: Fix shutdown.return \+ versioning Fix shutdown.return when ondelay = 0 → split between offdelay < 60 and offdelay > 60. Increase driver versions.
-



**2.1914 2013-06-17 Daniele Pezzini <hyouko@gmail.com>**

- docs/man/voltronic\_ser.txt, docs/man/voltronic\_usb.txt: Correct typos @shutdown.{return,stayoff}
- drivers/voltronic.c, drivers/voltronic\_ser.c, drivers/voltronic\_usb.c: Improve shutdown sequence \+ versioning Split shutdown and stopping of pending shutdowns so that if there's no shutdown pending and the UPS doesn't accept a shutdown.stop in this situation (i.e. it replies (NAK) the shutdown procedure doesn't get halted. Increase version number of drivers.
- data/driver.list.in: Correct typos & add software reference in HCL
- docs/man/voltronic\_ser.txt, docs/man/voltronic\_usb.txt: Improve docs layout
- drivers/voltronic\_usb.c: Add USBDevice\_t structure
- drivers/voltronic\_usb.c: Add comment so that autogen rules have the right comment
- drivers/voltronic\_ser.c, drivers/voltronic\_usb.c: Correct manpage references

**2.1915 2013-06-14 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- scripts/Aix/nut-aix.spec.in, scripts/Aix/nut.init: AIX: packaging & init script improvements (cherry picked from commit ce195e3a2eff1abbd8e192f4d3e278017d7ffb21)

**2.1916 2013-06-12 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- scripts/Aix/nut.init: Fixed client startup detection (cherry picked from commit 23df5e811cc9008bfa0a37bd174b59890a3760a6)
- scripts/Aix/nut-aix.spec.in: Fixed AIX RPM specfile (cherry picked from commit 11ba37bf36dcda0398c8c62fab838dd00e54c5db)

**2.1917 2013-06-11 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- scripts/Aix/nut-aix.spec.in: Allow libneon-based XML driver & scanning for AIX (cherry picked from commit 4c2e89ec584b2015b22)

**2.1918 2013-06-10 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- clients/Makefile.am: Fix of AIX-specific parseconf linking bug Added dummy do\_upsconf\_args to binaries that use libcommon to satisfy the linker. libcommon links libparseconf, which calls do\_upsconf\_args supplied from above as an implementation-specific routine. (cherry picked from commit 0078f9383d3a7af4f3edfed6c78de387a12c6b2b)

**2.1919 2013-05-14 Bo Kersey <bo@vircio.com>**

- drivers/bestfcom.c: bestfcom: Use fc.idealvolts for calculating percent charge *I have a Best Ferrups 3.1KVA and I noticed that the percent battery voltage reported from upsc never gets above 69.9%. I believe there is a mistake in the driver. The battery percentage is calculated based on the High Battery Alarm Setpoint (59.6V) instead of the Ideal Voltage which is about 54V (4 batteries x 13.6V). I examined the source code and found that the variable fc.fullvolts is the result of querying parameter 67 from the UPS. This parameter is defined per Ferrups Tip 503 as: "The battery voltage at which the UPS sound a High Battery alarm" A better value to use in determining the percent battery voltage would be fc.idealvolts which is calculated in the driver source. ... I propose the following patch to fix the battery.charge (% battery full) reading. Ref: <http://article.gmane.org/-gmane.comp.monitoring.nut.user/7891>*

**2.1920 2013-05-13 Michal Soltys <[soltys@ziu.info](mailto:soltys@ziu.info)>**

- docs/nut-names.txt: Add device.uptime to nut-names.txt Also fix one typo.
- docs/man/apcsmart.txt, drivers/apcsmart.c: apcsmart: allow users to select non-canonical tty mode The main reason behind this addition is windows compatibility, see <http://article.gmane.org/gmane.comp.monitoring.nut.user/7762> IGNCR has been readded earlier in commit 20c52bee77fa0b3ea3c7f8bec25afd103b7ff4a2 - this might be enough to handle windows behavior, but if it's not the case - using non canonical processing (same as is present in apcsmart-old) should solve any pressing issues.
- drivers/apcsmart\_tabs.c: apcsmart: add device.uptime to vartab

**2.1921 2013-05-03 Andrew Avdeev <[andrew.avdeev@gmail.com](mailto:andrew.avdeev@gmail.com)>**

- drivers/powercom-hid.c: PowerCOM BNT-1000AP HID instant commands Adds a few vendor-specific HID mappings for PowerCOM. Instant commands supported on UPS [pcm]: beeper.disable - Disable the UPS beeper beeper.enable - Enable the UPS beeper beeper.toggle - Toggle the UPS beeper load.off - Turn off the load immediately load.on - Turn on the load immediately shutdown.return - Turn off the load and return when power is back shutdown.stayoff - Turn off the load and remain off test.battery.start.quick - Start a quick battery test <http://article.gmane.org/gmane.comp.monitoring.nut.devel/6435>

**2.1922 2013-04-27 Charles Lepple <[clepple+nut@gmail.com](mailto:clepple+nut@gmail.com)>**

- include/Makefile.am: nut\_version.h: remove SVN plumbing This should eliminate the "Unversioned directory" message. The source of the version information is also listed in nut\_version.h Closes Github [issue #15](#)

**2.1923 2013-04-26 Michal Soltys <[soltys@ziu.info](mailto:soltys@ziu.info)>**

- drivers/apcsmart.c, drivers/apcsmart\_tabs.h: apcsmart: remove APC\_DEPR flag APC\_{MULTI, PRESENT} are both sufficient for handling 1:n and n:1 relations

**2.1924 2013-04-25 Vaclav Krpec <[VaclavKrpec@Eaton.com](mailto:VaclavKrpec@Eaton.com)>**

- clients/Makefile.am, clients/upsclient.c, configure.ac: linupsclient: NUT scanning on AIX bugfix 1/ A similar bug like in Solaris is in AIX itself---non-blocking connect may return -1 while errno == 0. Shall be treated as EINPROGRESS. 2/ Linking of libupsclient.so on AIX requires libcommon, otherwise scanning for NUT crashes with SIGSEGV on unresolved usplugx (cherry picked from commit 16177f99bc995852bb86d2183958f24f11993632)

**2.1925 2013-04-25 Christian Wiese <[christian.wiese@securepoint.de](mailto:christian.wiese@securepoint.de)>**

- tools/nut-scanner/Makefile.am, tools/nut-scanner/scan\_usb.c: nut-scanner: fix scan\_usb to remove trailing spaces from output strings This patch uses rtrim() from libcommon to remove trailing spaces from serialnumber, device\_name and vendor\_name. see: <https://github.com/networkupstools/nut/issues/26>

**2.1926 2013-04-22 Michal Soltys <[soltys@ziu.info](mailto:soltys@ziu.info)>**

- drivers/apcsmart.c: apcsmart: expand APC\_MULTI to apc:nut 1:n cases

**2.1927 2013-04-18 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- docs/new-drivers.txt: Add a reference to the SNMP subdrivers chapter
-

**2.1928 2013-04-16 Michal Soltys <soltys@ziu.info>**

- drivers/apcsmart.c: apcsmart: remove strchr() check from legacy\_verify() As vartab doesn't contain characters from APC\_UNR\_CMD

**2.1929 2013-04-15 Michal Soltys <soltys@ziu.info>**

- drivers/apcsmart.c, drivers/apcsmart\_tabs.c: apcsmart: change approach to 2 digit compatibility entries As reported in <http://article.gmane.org/gmane.comp.monitoring.nut.user/7762> - 2 digit values reported through *b* are really >255V voltage values. So we match whole 00 - FF set as single (fake) compat entry.
- drivers/apcsmart.h: apcsmart: re-add CR to ignore sets Despite icanon mode, windows (supposedly) is incapable of ignoring CR in fashion analogous to IGNCR flag. See <http://article.gmane.org/gmane.comp.monitoring.nut.user/7762> for rationale.
- drivers/apcsmart\_tabs.c: apcsmart: add regex format to ambient.0.temperature *T* might (on older units) also mean "ups uptime", so we want to distinguish that case gracefully. The formats are: uptime: 000.0 temp: 00.00
- drivers/apcsmart.c, drivers/apcsmart.h, drivers/apcsmart\_tabs.c, drivers/apcsmart\_tabs.h: apcsmart: move variable regex matching into vartab This also allows us to properly validate (in near future) cases when single apc variable can match multiple nut variables. Other changes: - adjust rexhlp() to follow 0 for false and non-0 for true, like in the rest of the functions - remove valid\_cmd() as rexhlp() can be used directly with formats in the table; furthermore the warning (in case of failure) could be confusing when we add nut:apc n:1 case

**2.1930 2013-04-12 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- docs/man/nutconf.txt: nutconf man page update

**2.1931 2013-04-11 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/libusb.c: Set USB timeout to 5 seconds Set the low level USB timeout back to the standard 5 seconds. This was set to 4 seconds, for performance reasons, but is now causing issues with some devices (reported by Stefan "stevenbg", GitHub [issue #23](#))

**2.1932 2013-04-10 Elio Parisi <E.Paris@riello-ups.com>**

- drivers/riello.c, drivers/riello.h, drivers/riello\_ser.c, drivers/riello\_usb.c: Riello drivers: fix memset() arguments, and use stdint.h Reference: <http://article.gmane.org/gmane.comp.monitoring.nut.devel/6417>

**2.1933 2013-04-10 Daniele Pezzini <hyouko@gmail.com>**

- data/driver.list.in, docs/man/Makefile.am, docs/man/voltronic\_ser.txt, docs/man/voltronic\_usb.txt, drivers/Makefile.am, drivers/voltronic.c, drivers/voltronic.h, drivers/voltronic\_ser.c, drivers/voltronic\_usb.c: New drivers: voltronic\_ser/voltronic\_usb Reference: <http://article.gmane.org/gmane.comp.monitoring.nut.devel/6418>

**2.1934 2013-04-10 Charles Lepple <clepple+nut@gmail.com>**

- docs/man/.gitignore: Ignore voltronic\_\* generated documentation
  - drivers/voltronic\_usb.c: voltronic\_usb: switch to new is\_usb\_device\_supported() syntax
  - tools/nut-usbinfopl: Add voltronic\_usb driver to USB info extractor tool
-

**2.1935 2013-04-04 Émilien Kia <emilien.kia@gmail.com>**

- configure.in, docs/new-clients.txt, scripts/Makefile.am, scripts/README, scripts/java/.gitignore, scripts/java/Makefile.am, scripts/java/README, scripts/java/jNut/.gitignore, scripts/java/jNut/README, scripts/java/jNut/pom.xml, .../main/java/org/networkupstools/jnut/Command.java, .../main/java/org/networkupstools/jnut/Device.java, .../org/networkupstools/jnut/Scanner.java, .../org/networkupstools/jnut/StringLineSocket.java, .../java/org/networkupstools/jnut/ClientTest.java, .../java/org/networkupstools/jnut/ScannerTest.java, scripts/java/jNutList/README, scripts/java/jNutList/pom.xml, .../java/org/networkupstools/jnutlist/AppList.java, scripts/java/jNutWebAPI/README, scripts/java/jNutWebAPI/pom.xml, .../jnutwebapi/NutRestProvider.java, .../jnutwebapi/RestWSApplication.java, .../jnutwebapi/Scanner.java, .../jNutWebAPI/src/main/webapp/WEB-INF/web.xml: Remove java related files (jNut) which will be moved to a separated repository. See issues: - <https://github.com/networkupstools/nut/issues/2> - <https://github.com/networkupstools/nut/issues/22>

**2.1936 2013-03-29 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- include/nutconf.h, tools/nutconf/nutconf.cpp: nutconf: --{add\set}-device: <key>=<value> support Added support for setting virtually any <key>=<value> pairs for devices by the above options. Now, the synopsis of the options argument lists is: <id> <driver> <port> [<key>=<value>]\* (i.e. description is set as desc="blah blah blah")

**2.1937 2013-03-26 Alex Lov <alex@alexlov.com>**

- drivers/ietf-mib.c: Fix OID for input.bypass.voltage in ietf-mib.c Oops, forgot fix one
- drivers/ietf-mib.c: Fix OIDs for bypass group in ietf-mib.c Reference <http://tools.ietf.org/html/rfc1628#page-12> For bypass voltage, current and power

**2.1938 2013-03-18 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- tools/nutconf/nutconf.cpp: nutconf: reintroduction of funcs lost in trans. --set-notifycmd, --set-minsupplies & --set-powerdownflag options reintroduced after being lost in recent multi-step transition to git

**2.1939 2013-03-13 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- Makefile.am: AIX packages: make package does the trick (cherry picked from commit 1d25bd2868339decace5b3028c834746f282467)

**2.1940 2013-03-13 Arnaud Quette <arnaud.quette@free.fr>**

- docs/FAQ.txt: Add a FAQ entry for supported but not working USB UPS

**2.1941 2013-03-12 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- scripts/Aix/nut-aix.spec.in, scripts/Aix/nut.init: AIX packaging: nut-client uninstal bugfix Packages clean uninstallation (lost/-forgotten commit) (cherry picked from commit f6dd1aec5d2157a3ba3654621fa8e2ac88b060f9)

**2.1942 2013-03-10 Charles Lepple <clepple+nut@gmail.com>**

- tests/Makefile.am: tests: Fix build without libcppunit
- scripts/upower/95-upower-hid.rules: upower: update generated rules file

**2.1943 2013-03-09 Charles Lepple <clepple+nut@gmail.com>**

- docs/download.txt: Update VMware ESXi package link (from René Garcia)
-

**2.1944 2013-03-08 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- clients/upsclient.c, configure.ac: Solaris/i386: non-blocking connect WA (cherry picked from commit d2b466b9ee5402074ccbf7f2967)

**2.1945 2013-03-04 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- Makefile.am, configure.ac, scripts/Aix/nut-aix.spec.in, scripts/Aix/nut.init: AIX packaging AIX init script and RPM spec. file added (cherry picked from commit 3851525edcb417f96a5d1c12fb786b85095b54d4)

**2.1946 2013-02-28 Charles Lepple <clepple+nut@gmail.com>**

- Makefile.am, tools/gitlog2changelog.py: Issue #4: Specify starting commit to gitlog2changelog.py

**2.1947 2013-02-27 Michal Soltys <soltys@ziu.info>**

- drivers/apcsmart\_tabs.c: apcsmart: add old APC 600I compatibility entry Though without *T* - until we handle situations when single nut variable is able to correspond to more than one apc var. Testet-by: Markus Pruehs <apc@markus.pruehs.com>

**2.1948 2013-02-26 Charles Lepple <clepple+nut@gmail.com>**

- tools/gitlog2changelog.py: git-changelog: really fixes #4 (missing entries) The script was discarding any commits which happened to include the word *commit*.
- tools/gitlog2changelog.py: git-changelog: remove re.\* calls for simple string matching

**2.1949 2013-02-25 Émilien Kia <emilien.kia@gmail.com>**

- clients/nutclient.cpp, clients/nutclient.h: Add comparison operator for nut::Device class. Make std::set<nut::Device> work and not dropping devices anymore.

**2.1950 2013-02-25 Charles Lepple <clepple+nut@gmail.com>**

- Makefile.am, tools/Makefile.am: git-changelog: Fix list of distributed files
- tools/gitlog2changelog.py: Fixes issue #4: ChangeLog now includes single-file commits.
- Makefile.am, tools/gitlog2changelog.py: Issue #4: generate ChangeLog from git logs This seems to generate long ChangeLog entries in the format we had with svn2cl, but some commits appear to be missing.
- tools/gitlog2changelog.py: Import gitlog2changelog.py (2008-12-27) <https://github.com/cryos/avogadro/commit/8be9957e5b3b56757gitlog2changelog.py>

**2.1951 2013-02-24 Charles Lepple <clepple+nut@gmail.com>**

- autogen.sh, configure.ac, scripts/Makefile.am, scripts/devd/.gitignore, scripts/devd/Makefile.am, scripts/devd/README, tools/nut-usbinfo.pl: FreeBSD: generate devd.conf files for USB UPSes This adds a --with-devd-dir=PATH option to ./configure, which defaults to /usr/local/etc/devd (or /etc/devd, whichever is found first). Unlike udev, there does not seem to be a way to re-trigger rules at runtime. This means you will likely need to unplug and replug your UPS after installing the new nut-usb.conf file.

**2.1952 2013-02-23 Charles Lepple <clepple+nut@gmail.com>**

- drivers/bcmxcp.c: bcmxcp: remove unused variable
-

**2.1953 2013-02-21 Michal Soltys <[soltys@ziu.info](mailto:soltys@ziu.info)>**

- drivers/apcsmart\_tabs.c: apcsmart: minor fixups to compat. tables
- drivers/apcsmart.c: apcsmart: verify/setup fixups legacy\_verify()
  - check against commands we always ignore oldapcsetup() - extra comments, minor flow change

**2.1954 2013-02-21 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- .gitignore, scripts/HP-UX/.gitignore: Git ignored files completion

**2.1955 2013-02-17 Charles Lepple <[clepple+nut@gmail.com](mailto:clepple+nut@gmail.com)>**

- tools/git-svn.authors, tools/svn2cl.authors: Remove obsolete authors files.

**2.1956 2013-02-16 Charles Lepple <[clepple+nut@gmail.com](mailto:clepple+nut@gmail.com)>**

- docs/website/news.txt: News: Git conversion
- docs/developers.txt: Update developer documentation for Git repository

**2.1957 2013-02-16 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- .gitignore: Git ignored files completion

**2.1958 2013-02-08 Vaclav Krpec <[VaclavKrpec@Eaton.com](mailto:VaclavKrpec@Eaton.com)>**

- tools/nutconf/nutconf.cpp: nutconf: --scan-serial port list bugfix Piggybacking: added device type check to skip invalid devices returned from libnutscan
- tools/nut-scanner/nutscan-device.c, tools/nut-scanner/nutscan-device.h: libnutscan: dev. type strings array size fixed

**2.1959 2013-02-07 Vaclav Krpec <[VaclavKrpec@Eaton.com](mailto:VaclavKrpec@Eaton.com)>**

- tools/nut-scanner/nutscan-device.c: libnutscan: serial device type string undefined

**2.1960 2013-02-06 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- scripts/Solaris/nut.in, scripts/Solaris/postinstall.in: [Solaris] Fix postinstall user/group, and service start \* Fix postinstall user/-group detection/creation. \* Fix service start depending on the mode, and add poweroff command.

**2.1961 2013-02-05 Vaclav Krpec <[VaclavKrpec@Eaton.com](mailto:VaclavKrpec@Eaton.com)>**

- common/nutconf.cpp, common/nutwriter.cpp, docs/man/nutconf.txt, include/nutconf.h, tools/nut-scanner/nutscan-device.c, tools/nut-scanner/nutscan-device.h, tools/nut-scanner/nutscan-display.c, tools/nut-scanner/scan\_avahi.c, tools/nut-scanner/scan\_eaton\_serial.c, tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_usb.c, tools/nut-scanner/scan\_xml\_http.c, tools/nutconf/nutconf.cpp: nutconf: another round of bugfixes --{get|set}-mode options have replaced --mode option --set-mode option actually sets the mode in nut.conf libnutscan provides devices list rewinded (i.e. handled by the head) libnutscan options fixed (so that the 1st is dynamic, too)
  - tools/nutconf/nutconf.cpp: nutconf: proper device config dump
  - tools/nutconf/nutconf.cpp: nutconf: device with no options bugfix
  - docs/man/Makefile.am, tools/nutconf/nutconf.cpp: nutconf: bugfixes \+ HTML manpage
-

**2.1962 2013-02-04 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- common/Makefile.am, docs/man/nutconf.txt, include/Makefile.am, tests/Makefile.am, tests/nutconf\_ut.cpp, tools/nutconf/Makefile.am, tools/nutconf/nutconf.cpp: nutconf: compilation & finishing touches

**2.1963 2013-02-04 Emilien Kia <kiae.dev@gmail.com>**

- include/proto.h: Move `__cplusplus/extern "C"` begin block before to fix a problem of `ifdef` when included in real C++ code.

**2.1964 2013-02-01 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- docs/man/Makefile.am, docs/man/nutconf.txt: nutconf: manpage added
- tests/nutconf\_ut.cpp, tools/nutconf/nutconf.cpp: nutconf: added `--scan-serial` option Piggybacking: IPMI devices scanning updated Fixed nutconf UT

**2.1965 2013-02-01 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- configure.in, scripts/HP-UX/makedepot.sh, scripts/HP-UX/nut.psf.in, scripts/HP-UX/postinstall.in: [HP-UX] : add postinstal script for installing services files.

**2.1966 2013-02-01 Arnaud Quette <arnaud.quette@free.fr>**

- docs/man/snmp-ups.txt: Update SNMP driver documentation Mentioning *mib* is not needed anymore since NUT 2.6.2. Also mention *v3* as an allowed value for *snmp\_version* (reported by Tim Rice)

**2.1967 2013-01-31 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- tools/nutconf/nutconf.cpp: nutconf: `--scan-snmp` option added

**2.1968 2013-01-30 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- common/Makefile.am, configure.in, tools/Makefile.am, tools/nut-scanner/nutscan-device.c, tools/nut-scanner/nutscan-device.h, tools/nutconf/Makefile.am, common/nutconfbin.cpp  $\Rightarrow$  tools/nutconf/nutconf.cpp: nutconf: `--scan-*` options added `--scan-snmp` is still not implemented, TODO `--scan-serial` is missing, too All other device protocols should work as long as libnutscan works.

**2.1969 2013-01-29 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- common/nutconfbin.cpp: nutconf: `--{set\add}-user` options added NOTE: The options ONLY manipulate `upsd.users` configuration file. It shall have to be discussed how `upsmon.conf` shall be kept in sync with the `upsmon` user settings (TODO).

**2.1970 2013-01-29 Michal Soltys <msoltyspl-guest@alioth.debian.org>**

- drivers/apcsmart.c, drivers/apcsmart.h, drivers/apcsmart\_tabs.c, drivers/apcsmart\_tabs.h: apcsmart: implement #311678 (multiple values per variable) This is a bit more general than the original request. All variables that return multiple comma-separated values, are added as `.N.` where  $1 \leq N \leq \text{APC\_PACK\_MAX}$ ; the variables are stored with temporary name `.0.` in `apcsmart_tabs.c`, but only at least 1 and at most 4 are added per update run (superfluous - if any - are removed), with `.0.` placeholder being ignored. We assume that the particular variables cannot belong to the capability set at the same time (as reported by user) - otherwise we will need a bit more complex handling, including updates to all setvar functions.



- drivers/apcsmart.c, drivers/apcsmart.h: apcsmart: update logging logic / apc\_read() - logging This mostly adds few macros that implicitly use or pass caller's name (and in case of hard errors, line number). This allows removal of a few "failed" / "succeeded" lines (which in practice don't really happen), for example there is no need for: upslogx(LOG\_ERR, "preread\_data: apc\_write failed"); as any hard error will be reported by apc\_write() internally, providing the place and line number it was called at. Similarly, some upslogx / upsdebugx calls were wrapped in analogous macros to provide caller's name automatically. Debug levels (-D) were adjusted to require only one letter. - apc\_read() It's been a bit more scrutinized: - filling up full caller's buffer is considered an error; shouldn't happen unless the ups is somehow damaged or some model is capable of returning more than 512 bytes in one read (current max I witnessed is around 270 bytes during capability read) - timeout reads (whether it's allowed or not) cannot really have any non-0 count, though sanity check could theoretically be useful in non-canonical mode; commented out code was added for reference
- drivers/apcsmart.c: apcsmart: enhance prtchr() So it can handle 4 returns with static pointers.
- drivers/apcsmart.c: apcsmart: allow timeout on read in smartmode() As this function is used to "nudge" ups, we should expect it to timeout. Also avoids extra log spam.

## 2.1971 2013-01-29 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>

- scripts/Solaris/postinstall.in: Use variables to generate Solaris postinstall script.
- scripts/Solaris/postinstall.in: Enhance the Solaris post install script.

## 2.1972 2013-01-28 Vaclav Krpec <[VaclavKrpec@Eaton.com](mailto:VaclavKrpec@Eaton.com)>

- common/nutconfbin.cpp: nutconf: --set-shutdowncmd option added
- common/nutconfbin.cpp: nutconf: --set-notifymsg option added
- common/nutconf.cpp, common/nutconfbin.cpp: nutconf: --{set\ladd}-notifyflags options added

## 2.1973 2013-01-25 Vaclav Krpec <[VaclavKrpec@Eaton.com](mailto:VaclavKrpec@Eaton.com)>

- common/nutconfbin.cpp: nutconf: --{set\ladd}-device options added
- common/nutconf.cpp, common/nutconfbin.cpp: nutconf: daily commit Changes: Merged with changes/bugfixes suggested by Arnaud --set-monitor option discards existing entries --add-monitor option added --set-listen and --add-listen options added

## 2.1974 2013-01-24 Vaclav Krpec <[VaclavKrpec@Eaton.com](mailto:VaclavKrpec@Eaton.com)>

- common/nutconf.cpp, common/nutconfbin.cpp: nutconf: daily commit Changes: --is-configured option added (checks existence of nut.conf and the MODE) --local and --system options added to set config. directory --mode option added (so far it only stores the required mode, TODO) --set-monitor multi-option added, allows to set (add actually) MONITORs

## 2.1975 2013-01-23 Vaclav Krpec <[VaclavKrpec@Eaton.com](mailto:VaclavKrpec@Eaton.com)>

- common/nutconfbin.cpp, common/nutstream.cpp, include/nutstream.hpp: nutconf: --is-configured option introduced The option causes nut.conf::MODE being checked; if not "none" (and if the file exists at all), it pronounces NUT as configured.

## 2.1976 2013-01-22 Vaclav Krpec <[VaclavKrpec@Eaton.com](mailto:VaclavKrpec@Eaton.com)>

- common/nutconfbin.cpp: The very 1st nutconf tool stub For now, only cmd. options parsing and usage works.
-



**2.1977 2013-01-22 Arnaud Quette <arnaud.quette@free.fr>**

- docs/man/.gitignore, docs/man/Makefile.am, docs/man/index.txt, docs/man/nut-scanner.txt, docs/man/nutscan\_get\_serial\_ports\_list.txt, docs/man/nutscan\_scan\_avahi.txt, docs/man/nutscan\_scan\_eaton\_serial.txt, docs/man/nutscan\_scan\_ipmi.txt, docs/man/nutscan\_scan\_snmp.txt, docs/man/nutscan\_scan\_usb.txt, docs/man/nutscan\_scan\_xml\_http.txt, include/nut\_platform.h, tools/nut-scanner/Makefile.am, tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-device.h, tools/nut-scanner/nutscan-display.c, tools/nut-scanner/nutscan-serial.c, tools/nut-scanner/nutscan-serial.h, tools/nut-scanner/scan\_eaton.c, tools/nut-scanner/scan\_nut.c: Add nut-scanner support for Eaton serial units nut-scanner and libnutscan now provides respectively an option and functions to detect Eaton serial devices. The following protocols are supported: SHUT, XCP and Q1 (patch from Frederic Bohe, with parts from Arnaud Quette, both for Eaton)
- docs/man/Makefile.am: Remove duplicate entries for Eaton serial scan
- include/Makefile.am, tools/nut-scanner/Makefile.am: List missing header files to be distributed nutscan-serial.h and nut\_platform.h were missing from the distribution
- scripts/Solaris/.gitignore: Subversion ignored files completion Mark Solaris generated packaging files as Subversion ignored (no functional changes)
- docs/man/.gitignore, docs/man/Makefile.am, docs/man/index.txt, docs/man/nut-scanner.txt, docs/man/nutscan\_get\_serial\_ports\_list.txt, docs/man/nutscan\_scan\_avahi.txt, docs/man/nutscan\_scan\_eaton\_serial.txt, docs/man/nutscan\_scan\_ipmi.txt, docs/man/nutscan\_scan\_snmp.txt, docs/man/nutscan\_scan\_usb.txt, docs/man/nutscan\_scan\_xml\_http.txt, include/nut\_platform.h, tools/nut-scanner/Makefile.am, tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-device.h, tools/nut-scanner/nutscan-display.c, tools/nut-scanner/nutscan-serial.c, tools/nut-scanner/nutscan-serial.h, tools/nut-scanner/scan\_eaton.c, tools/nut-scanner/scan\_nut.c: Add nut-scanner support for Eaton serial units nut-scanner and libnutscan now provides respectively an option and functions to detect Eaton serial devices. The following protocols are supported: SHUT, XCP and Q1 (patch from Frederic Bohe, with parts from Arnaud Quette, both for Eaton)
- configure.in: Fix for pthread on HP-UX pthread is compiled on a stub when -lpthread is not explicitly added. This commit is a duplicate of [SVN:3801], from Frederic Bohe (for Eaton)
- drivers/bcmxcp\_ser.c: Change baud-rates ordering for auto-detection
- docs/new-drivers.txt, drivers/serial.c, drivers/serial.h: Add non-fatal versions of ser\_open / ser\_set\_speed

**2.1978 2013-01-21 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- common/nutwriter.cpp: C\+\+11 code removed due platform compatibility

**2.1979 2013-01-21 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- scripts/Solaris/nut.in, scripts/Solaris/postinstall.in: Allow start/stop of NUT from Solaris packages

**2.1980 2013-01-13 Emilien Kia <kiae.dev@gmail.com>**

- clients/cgilib.h, clients/status.h, clients/upsimagearg.h, clients/upslog.h, clients/upsmon.h, clients/upssched.h, clients/upsstats.h, include/common.h, include/extstate.h, include/proto.h, include/state.h, include/upsconf.h, server/conf.h, server/desc.h, server/netcmds.h, server/netget.h, server/netinstcmd.h, server/netlist.h, server/netmisc.h, server/netset.h, server/netssl.h, server/netuser.h, server/ssstate.h, server/stype.h, server/upsd.h, server/upstype.h, server/user-data.h, server/user.h, tools/nut-scanner/nut-scan.h, tools/nut-scanner/nutscan-device.h, tools/nut-scanner/nutscan-init.h, tools/nut-scanner/nutscan-ip.h: Protect header files for C\+\+ inclusion.
- clients/cgilib.h, clients/status.h, clients/upsimagearg.h, clients/upslog.h, clients/upsmon.h, clients/upssched.h, clients/upsstats.h, include/common.h, include/extstate.h, include/proto.h, include/state.h, include/upsconf.h, server/conf.h, server/desc.h, server/netcmds.h, server/netget.h, server/netinstcmd.h, server/netlist.h, server/netmisc.h, server/netset.h, server/netssl.h, server/netuser.h, server/ssstate.h, server/stype.h, server/upsd.h, server/upstype.h, server/user-data.h, server/user.h, tools/nut-scanner/nut-scan.h, tools/nut-scanner/nutscan-device.h, tools/nut-scanner/nutscan-init.h, tools/nut-scanner/nutscan-ip.h: Protect header files for C\+\+ inclusion.

**2.1981 2013-01-09 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- common/nutipc.cpp, include/nutipc.hpp, tests/nutipc\_ut.cpp: nutipc: signal handling UT added

**2.1982 2013-01-08 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- common/nutconf.cpp, common/nutwriter.cpp, include/nutconf.h, tests/nutconf\_ut.cpp: nutconf: fix of misplaced value quoting Value quoting/escaping is now done generically in nutwriter.
- common/nutconf.cpp, common/nutconfbin.cpp, common/nutipc.cpp, common/nutstream.cpp, common/nutwriter.cpp, include/-Makefile.am, include/nutconf.h, include/nutipc.hpp, include/{nutstream.h ⇒ nutstream.hpp}, include/{nutwriter.h ⇒ nutwriter.hpp}, tests/nutconf\_ut.cpp, tests/nutipc\_ut.cpp, tests/nutstream\_ut.cpp: nutipc: signal sending UTs nut::Signal::send via PIDfile and nut::NutSignal::send via process name added, too. Minor backwards-compatible changes in nutstream (file removal methods).

**2.1983 2013-01-07 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- common/nutipc.cpp, include/nutipc.hpp, tests/nutipc\_ut.cpp: nutipc: ext. command execution improvements The command line segmentation is finally implemented. nut::Process::execute static functions added for simplicity of usage.
- common/nutipc.cpp, include/nutipc.hpp, tests/Makefile.am, tests/nutipc\_ut.cpp: nutipc: linking cleanup & exec UT

**2.1984 2012-12-20 Émilien Kia <emilien.kia@gmail.com>**

- common/Makefile.am, common/nutconfbin.cpp: Add a little sample to use libconf. Special dedicace to Fred.

**2.1985 2012-12-19 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- scripts/HP-UX/makedepot.sh, scripts/HP-UX/nut.psf.in: Use installed binaries to create package

**2.1986 2012-12-19 Arnaud Quette <arnaud.quette@free.fr>**

- data/driver.list.in: HCL: Add support for Lyonn CTB-1200 Add Lyonn CTB-1200 (USB ID 0x0665:0x5161) to the list of blazer\_usb supported models (reported by Martin Sarsale)
- docs/stable-hcl.txt: Clarify expected report for shutdown testing State explicitly that, for now, a statement that the user has actually tested the shutdown procedure successfully is enough (report from Martin Sarsale)

**2.1987 2012-12-18 Michal Soltys <msoltyspl-guest@alioth.debian.org>**

- drivers/apcsmart.c: apcsmart: add update\_info() No need for almost identical update\_info\_normal() and update\_info\_all()
- drivers/apcsmart.c: apcsmart: two fixups In poll\_data(): we are not supposed to set variable after its (formally impossible) removal In upsdv\_shutdown(): wrong comparison

**2.1988 2012-12-18 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/delta\_ups-mib.c: Fix a typo error and current multiplier factor
- data/driver.list.in, drivers/Makefile.am, drivers/delta\_ups-mib.c, drivers/delta\_ups-mib.h, drivers/snmp-ups.c: Support for DeltaUPS MIB and Socomec Netys RT 1/1 Add preliminary SNMP support for a new MIB: DeltaUPS MIB, with sysOID ".1.3.6.1.4.1.2254.2.4". The first known supported devices are Socomec Netys RT 1/1, equiped with Netvision SNMP card

**2.1989 2012-12-14 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- common/Makefile.am, common/nutipc.cpp, include/Makefile.am, include/nutipc.hpp: NUT IPC module introduction A non-complete implementation of NUT IPC support module. Certain functions are just outlined, for now. Deals with signal handling and execution of external commands. I commit this partial implementation because I'll be on holiday for certain amount of time and it's IMO better to have the code committed.

**2.1990 2012-12-14 Arnaud Quette <arnaud.quette@free.fr>**

- data/driver.list.in, drivers/powerp-txt.c, drivers/powerpanel.c: Add support for CyberPower OL3000RMXL2U Add CyberPower OL3000RMXL2U serial support to the powerpanel driver, text protocol version (Alioth patch #313910, from Timothy Pearson)

**2.1991 2012-12-13 Arnaud Quette <arnaud.quette@free.fr>**

- docs/Makefile.am, docs/new-drivers.txt, docs/snmp-subdrivers.txt, scripts/subdriver/gen-snmp-subdriver.sh: Helper script to create SNMP subdrivers stubs Created a new shell script (scripts/subdriver/gen-snmp-subdriver.sh) to automatically create a "stub" subdriver. This will make it a lot easier and quicker to create subdrivers for snmp-ups. A new documentation chapter has also been added ("How to make a new subdriver to support another SNMP device")
- drivers/triplite-hid.c: Add support for newer TrippLite Smart1500LCD Add newer TrippLite Smart1500LCD (USB ID 0x09ae:0x3016) to the list of usbhid-ups supported models (reported by Steve Salier)

**2.1992 2012-12-12 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- drivers/mge-hid.c: Fix crash with debug level greater or equal to 2

**2.1993 2012-12-11 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- common/nutconf.cpp, include/nutconf.h, tests/Makefile.am, tests/nutconf\_ut.cpp: Basic unit tests for libnutconf UTs with focus on basic configuration settings and serialisation were added for nut.conf, upsmmon.conf, upsd.conf ups.conf and upsd.users. Note that the tests are not exhaustive; they only parse configuration files samples, change a few randomly selected parameters, serialise the result back and check it.

**2.1994 2012-12-10 Michal Soltys <msoltyspl-guest@alioth.debian.org>**

- drivers/apcsmart.c: apcsmart: add prtchr() helper Add prtchr() helper and simplify reporting when we check whether some APC cmd/var character is or isn't printable.
- drivers/apcsmart\_tabs.c: apcsmart: apc\_cmdtab[] fixup Earlier commit that adjusted regex checks, also changed cmd fields for all instant commands handled by custom functions. We cannot do that, as they are not detected as supported this way.

**2.1995 2012-12-09 Arnaud Quette <arnaud.quette@free.fr>**

- scripts/Windows/Makefile.am: Forgotten build and distribution rules
  - include/common.h, include/wincompat.h: Fix MingGW-w64 compilation
  - scripts/Windows/README, scripts/Windows/build-mingw-nut.sh: Automated Windows cross compilation Preliminary support for automated Windows cross compilation, using MingGW-w64. A script is provided, with 32 and 64 bits compilation options, along with a documentation file
-

**2.1996 2012-12-08 Michal Soltys <[msoltyspl-guest@alioth.debian.org](mailto:msoltyspl-guest@alioth.debian.org)>**

- drivers/apcsmart.c: apcsmart: serial related stuff a bit more strict Also: - apc\_flush() now loops with >0 condition (otherwise errored apc\_read() might cause inf loop) - ser\_comm\_good/fail() were kind of missing in write wrappers
- drivers/apcsmart.c, drivers/apcsmart.h: apcsmart: sdlist/sdtype/advorder changes - verify *advorder* with regex - remove unused defines - as the user is directed towards man page either way (and without it numbers are kind of meaningless), drop SDMAX
- drivers/apcsmart.c: apcsmart: setup port after variable sanitization in upsdrv\_initups()
- drivers/apcsmart.c: apcsmart: cleanup dstate ok/stale calls
- drivers/apcsmart.c: apcsmart: getbaseinfo() fixup In extremely unlikely case of failing write, report it up and act accordingly.
- drivers/apcsmart.c, drivers/apcsmart.h, drivers/apcsmart\_tabs.c, drivers/apcsmart\_tabs.h: apcsmart: adjust regex logic A bit simpler / tighter now.
- drivers/apcsmart.c: apcsmart: add var\_string\_setup() In theory deprecate\_vars() should also consider APC\_STRING variables. In practice - we don't have any variables that are both APC\_MULTI and APC\_STRING - but it's more correct this way, so let's do it.
- drivers/apcsmart.c: apcsmart: cosmetics - code shuffling, comments, flow - rename query\_ups() → legacy\_verify() - add few lines of help directing to man page
- drivers/apcsmart.c: apcsmart: simplify query\_ups() / proto\_verification() Both functions rely now on common variable verification function.
- drivers/apcsmart.c: apcsmart: add var\_verify() The function will be used in subsequent commit for common verification.
- drivers/apcsmart.c: apcsmart: shuffle two functions query\_ups() and oldapcsetup()
- drivers/apcsmart.c: apcsmart: simplify query\_ups() This commit changes query\_ups() function and makes it rely on the same deprecate\_vars() logic that protocol\_verify() requires. We can shorten the code a bit now, and it allows us to do more simplifications in subsequent commits.
- drivers/apcsmart.c: apcsmart: add functions informing about [un]supported cmds/vars In unified fashion, instead of each protocol-verification related function doing it on its own.
- drivers/apcsmart.c, drivers/apcsmart.h, drivers/apcsmart\_tabs.c, drivers/apcsmart\_tabs.h: apcsmart: minor tidying up comments, trivial changes, code shuffling ...
- drivers/apcsmart.c: apcsmart: remove unused field *def* from cchar In apc\_ser\_diff() reporting differences between tcgetattr/tcsetattr, *def* field was unused (along with related defines).

**2.1997 2012-12-08 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- drivers/mge-utalk.c, drivers/mge-utalk.h: Change Martin Loyer's mail address As per Martin's request.
- drivers/mge-utalk.c: Improve mge-utalk general behavior Make two adjustments to improve the general behavior: first, send the double "Z" prior to "Si" command. Second, inter-commands delay has been increased to comply with the specification

**2.1998 2012-12-07 Vaclav Krpec <[VaclavKrpec@Eaton.com](mailto:VaclavKrpec@Eaton.com)>**

- common/nutconf.cpp, common/nutstream.cpp, common/nutwriter.cpp, include/nutconf.h, include/nutstream.h, include/nutwriter.h: (De)serialisation methods added to config. classes All existing NUT configuration classes now implement Serialisable interface (parseFrom and writeTo methods). Note that the parseFrom implementations are very naive (they simply read whole source stream to memory and call existing parseFromString method). That's enough for now, however, in future the parsers should directly use NutStream interface.

**2.1999 2012-12-06 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- common/nutconf.cpp, include/nutconf.h: Support for upsd.users config. file added
- common/nutstream.cpp, common/nutwriter.cpp, include/nutstream.h, include/nutwriter.h: Bugfix: out. std::stringstream constr. arg ignored
- common/nutwriter.cpp, include/nutwriter.h: Special serialiser for upsd.users config file The special serialiser is needed because of the [upsmon]:upsmon directive (which doesn't use the standard = key/ value separator). Also, serialisation of section entry value list was fixed (so that multiple entries are produced rather than a list of values).

**2.2000 2012-12-06 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- tools/nut-scanner/nut-scanner.c: Fix nut-scanner compilation without pthread

**2.2001 2012-12-05 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- common/nutconf.cpp, common/nutwriter.cpp, include/nutconf.h: UpsConfiguration class added to libnutconf Getters/setters for all UPS config. attributes added The getters/setters need further checking for type correctness Generic support for the above implemented in GenericConfiguration class

**2.2002 2012-12-02 Charles Lepple <clepple+nut@gmail.com>**

- drivers/riello\_usb.c: riello\_usb.c: eliminate uninitialized variable

**2.2003 2012-11-30 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- common/nutwriter.cpp, include/nutconf.h: NutWriter: ups.conf upsmon.conf upsd.conf support

**2.2004 2012-11-29 Arnaud Quette <arnaud.quette@free.fr>**

- conf/.gitignore: Subversion ignored files completion Mark upsmon.conf.sample as Subversion ignored, since it is now generated from a .in template file (no functional changes)
- conf/Makefile.am, conf/{upsmon.conf.sample ⇒ upsmon.conf.sample.in}, configure.in: Adapt upsmon.conf sample to use configured values The sample upsmon.conf provided now adapts RUN\_AS\_USER value, and NOTIFYCMD / POWER-DOWNFLAG base path to the user configured values

**2.2005 2012-11-28 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- common/Makefile.am, common/nutstream.cpp, common/nutwriter.cpp, include/Makefile.am, include/nutconf.h, include/nutstream.h, include/nutwriter.h: Partial implementation on NutWriter subtree General serialisers implemented Several TBDs and TODOs left for review tbc...

**2.2006 2012-11-28 Charles Lepple <clepple+nut@gmail.com>**

- conf/upsmon.conf.sample, docs/man/upsmon.conf.txt: Update references to pager.txt
-

**2.2007 2012-11-28 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/riello.c, drivers/riello\_ser.c, drivers/riello\_usb.c: Minor improvements to Riello drivers Fix ups.power.nominal name in Riello drivers, and its value for GPSE protocol(riello\_ser). device.mfr was also changed in both drivers, and revisions were bumped to 0.02 (patch from Elio Parisi, Riello)
- data/driver.list.in, drivers/Makefile.am, drivers/openups-hid.c, drivers/openups-hid.h, drivers/usbhid-ups.c, scripts/upower/95-upower-hid.rules: Official support for Minibox openUPS Intelligent UPS Add a new usbhid-ups subdriver to handle Minibox openUPS Intelligent UPS (USB ID 0x04d8:0xd004) (patch from Nicu Pavel, Mini-Box.Com)

**2.2008 2012-11-27 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- data/driver.list.in, docs/man/genericups.txt: Add information about Eaton Management Card Contact

**2.2009 2012-11-25 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/riello.c, drivers/riello.h, drivers/riello\_ser.c, drivers/riello\_usb.c: Minor improvements to Riello drivers Fix functions and variables names to use English language. Also fix warnings reported by Mac OS X Buildbot and Charles Lepple (patch from Elio Parisi, Riello)

**2.2010 2012-11-22 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- tests/nutstream\_ut.cpp: Forgotten UT source from prev. commit
- common/Makefile.am, common/nutstream.cpp, include/Makefile.am, include/nutstream.h, tests/Makefile.am: Unit tests for nut::NutStream subtree Basic unit tests plus a few minor changes and updates to the code

**2.2011 2012-11-21 Arnaud Quette <arnaud.quette@free.fr>**

- docs/acknowledgements.txt: Complete Acknowledgements with a Riello entry Riello deserves a dedicated entry in the Supporting UPS manufacturers, for having provided protocols information and drivers implementations
- docs/man/.gitignore: Subversion ignored files completion Mark riello\_ser and riello\_usb HTML manpages as Subversion ignored (no functional changes)
- data/driver.list.in, docs/man/.gitignore, docs/man/Makefile.am, docs/man/riello\_ser.txt, docs/man/riello\_usb.txt, drivers/.gitignore, drivers/Makefile.am, drivers/riello.c, drivers/riello.h, drivers/riello\_ser.c, drivers/riello\_usb.c, tools/nut-usbinfo.pl: Official support for Riello serial and USB devices Add two new drivers, riello\_ser and riello\_usb, to support the whole ranges of Riello devices: IDG, IPG, WPG, NPW, NDG, DVT, DVR, DVD, VST, VSD, SEP, SDH, SDL, SPW, SPT, MCT, MST, MCM, MCT, MHT, MPT and MPM. This completes the official Riello protocols publication, that happened in May 2012 (developed by Elio Parisi, from Riello)

**2.2012 2012-11-20 Arnaud Quette <arnaud.quette@free.fr>**

- clients/upsclient.h, server/nut\_ctype.h: Fix NSS include directives The current NSS include directives (nss/nss.h) were incorrect. These were failing on Redhat systems, and working on some others because of the default include path (reported by Michal Hlavinka, from Redhat)

**2.2013 2012-11-19 Emilien Kia <kiae.dev@gmail.com>**

- tools/nut-scanner/nutscan-device.c: Fix a memory leak in scanner.
-

**2.2014 2012-11-19 Arnaud Quette <arnaud.quette@free.fr>**

- data/driver.list.in: HCL: Add support for Aviem Power RT 1000-3000VA Add Aviem Systems - Aviem Power RT 1000-3000VA to the list of blazer\_ser supported models (reported by Michael Dobrovitsky)

**2.2015 2012-11-16 Vaclav Krpec <VaclavKrpec@Eaton.com>**

- common/nutstream.cpp, include/nutstream.h: Initial implementation of nut::NutStream sub-tree nut::NutMemory (memory-based stream) nut::NutFile (file-stream) nut::NutSocket with nut::NutSocket::Address (UNIX domain, IPv4, IPv6)

**2.2016 2012-11-13 Emilien Kia <kiae.dev@gmail.com>**

- clients/Makefile.am, clients/nutclient.cpp, clients/nutclient.h, configure.in, docs/man/Makefile.am, docs/man/index.txt, docs/man/libnutclient.txt, docs/man/libnutclient\_commands.txt, docs/man/libnutclient\_devices.txt, docs/man/libnutclient\_general.txt, docs/man/libnutclient\_misc.txt, docs/man/libnutclient\_tcp.txt, docs/man/libnutclient\_variables.txt, docs/new-clients.txt, lib/Makefile.am, lib/README, lib/libnutclient.pc.in: Merge libnutclient (libcpp) branch Pull Request #2: "High level C and C++ libnutclient" from <https://github.com/clepple/nut/pull/2> . Hand-merged into SVN trunk from commit: 701cc571f4f8578e9c82b13c1e9

**2.2017 2012-11-13 Arnaud Quette <arnaud.quette@free.fr>**

- docs/man/.gitignore: Complete the list of Subversion ignored files Commit r3778 was missing generated HTML files (no functional changes)
- docs/man/Makefile.am: Fix installation of libnutclient manual pages Commit r3777 fixed the test target, but libnutclient manual pages were not actually installed
- docs/man/.gitignore, lib/.gitignore: Complete the list of Subversion ignored files The merge of NSS and libnutclient branches have left some new generated files (no functional changes)
- docs/man/libnutclient\_commands.txt, docs/man/libnutclient\_devices.txt, docs/man/libnutclient\_general.txt, docs/man/libnutclient\_misc.txt, docs/man/libnutclient\_tcp.txt, docs/man/libnutclient\_variables.txt: Fix Buildbot failures on previous commit (man pages) The merge of the libnutclient branch caused a failure of the *distcheck-light* test target. Manual pages documentation in this branch uses a mechanism to generate multiple manpages from one source file. This was however conflicting with a Makefile rule, that requires the generated file to have the same name as the source file. Applies the same principle by adding the content of the Header section to the NAME commands list. Also fix a typo error in the Header section of libnutclient\_devices

**2.2018 2012-11-08 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- docs/man/usbhid-ups.txt, drivers/usbhid-ups.c: Add a command line to usbhid-ups to activate the max\_report tweak.
- drivers/apc-hid.c, drivers/libhid.c: Fix tweak for APC Back-UPS since it seems to break Back-UPS 700 connectivity (reported by Denis Serov). Adding some more comments on UPS which need and which do not need the tweak. Refactored the detection code.

**2.2019 2012-11-07 Arnaud Quette <arnaud.quette@free.fr>**

- scripts/subdriver/gen-usbhid-subdriver.sh: Fix USB HID subdriver generation tool This tool has not been updated since timestamps were added to driver debug traces. It was thus producing erroneous results (reported by Nicu Pavel)

**2.2020 2012-11-02 Charles Lepple <clepple+nut@gmail.com>**

- README, scripts/upower/95-upower-hid.rules: apcupsd-ups: link to man page from README Patch by Arnaud: [https://alioth.debian.org/tracker/index.php?func=detail&aid=313846&group\\_id=30602&atid=411544](https://alioth.debian.org/tracker/index.php?func=detail&aid=313846&group_id=30602&atid=411544)



**2.2021 2012-11-01 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/snmp-ups.c: Fix a crash on outlets management snmp-ups was crashing when the number of outlets was equal to zero

**2.2022 2012-10-31 Arnaud Quette <arnaud.quette@free.fr>**

- docs/man/.gitignore, docs/man/blazer.txt: Fix blazer manual pages generation to generate blazer, blazer\_ser and blazer\_usb manual pages. The same manual page is now distributed and available under these 3 names (warning to packagers)
- docs/man/Makefile.am, docs/man/asciidoc.conf: Fix manpage refmiscinfo attributes and multiple NAME refmiscinfo attributes were previously specified through asciidoc.conf. This approach prevented from specifying and generating multiple manual pages from a single source. Moreover, manversion (pointing NUT version) was mistyped, and thus omitted. Makefile rules now directly define refmiscinfo through attributes, and allow to solve the long standing blazer / blazer\_ser / blazer\_usb related issue, and the upcoming libnutclient one

**2.2023 2012-10-30 Charles Lepple <clepple+nut@gmail.com>**

- docs/man/apcupsd-ups.txt: apcupsd-ups: Update man page with variables and units

**2.2024 2012-10-24 Émilien Kia <emilien.kia@gmail.com>**

- common/nutconf.cpp, include/nutconf.h, tests/nutconf.cpp: Add parsing options and allow : to be interpreted as normal character. Add parsing option to NutParser. Add a first option OPTION\_IGNORE\_COLON to parse : as a normal character and not as token. Use it to allow parsing "::1" IPv6-like as string without having to quote them (upsd.conf).
- tests/nutconf.cpp: Add test for UpsdConfiguration parsing.
- include/nutconf.h: Add equality test operators for Settable<T> and UpsdConfiguration::Listen.

**2.2025 2012-10-23 Émilien Kia <emilien.kia@gmail.com>**

- common/nutconf.cpp, include/nutconf.h: Implement upsd.conf UpsdConfigParser. Test pending. A bug is pending: IPv6 format must be in quoted string because of :.
- common/nutconf.cpp, include/nutconf.h, tests/nutconf.cpp: Implement nut.conf NutConfiguration parser.
- common/nutconf.cpp, include/nutconf.h, tests/nutconf.cpp: Implement UpsmonConfigParser and related.
- include/nutconf.h: Create and use a Settable helper which indicate if a parameter is set or not.
- include/nutconf.h: Add notify messages array in UpsmonConfiguration (oups !).

**2.2026 2012-10-22 Émilien Kia <emilien.kia@gmail.com>**

- common/nutconf.cpp, include/nutconf.h: Add stubs for upsmon.conf parser and config structure.
  - common/nutconf.cpp, include/nutconf.h, tests/nutconf.cpp: Add unit test for GenericConfiguration parsing. Add UT for GenericConfiguration (validate GenericConfigParser and all the stack). Fix some errors found with UT.
-



**2.2027 2012-10-19 Émilien Kia <emilien.kia@gmail.com>**

- common/nutconf.cpp, include/nutconf.h: Add GenericConfiguration function to parse from string (use GenericConfigParser).
- common/nutconf.cpp, include/nutconf.h: Virtualize GenericConfiguration with BaseConfiguration to really allow specialized versions of config class.
- common/nutconf.cpp, include/nutconf.h: Implement GenericConfigParser and related.
- common/nutconf.cpp, include/nutconf.h: Implement abstract class DefaultConfigParser
- common/nutconf.cpp, include/nutconf.h: Define a typedef type to make function easier to understand.

**2.2028 2012-10-19 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/cps-hid.c, drivers/idowell-hid.c, scripts/subdriver/gen-usbhid-subdriver.sh: Replace missing occurrences in previous commit
- docs/hid-subdrivers.txt, drivers/libhid.c, scripts/Makefile.am, scripts/subdriver/{path-to-subdriver.sh ⇒ gen-usbhid-subdriver.sh}: Rename usbhid subdriver generation script This script was previously named path-to-subdriver.sh, which was not enough meaningful. The renaming to gen-usbhid-subdriver.sh also makes sense with a potential gen-snmp-subdriver.sh
- data/driver.list.in: HCL: Add support for Apollo 850VA Add Apollo 850VA (USB ID 0x0665:0x5161) to the list of blazer\_usb supported models (reported by Mike Raath)

**2.2029 2012-10-15 Émilien Kia <emilien.kia@gmail.com>**

- common/nutconf.cpp, include/nutconf.h: Add stubs for DefaultConfigParser Add stubs for the default configuration file parser. Basic implementation will follow.
- common/nutconf.cpp, include/nutconf.h, tests/nutconf.cpp: Implement abstract configuration parser. Rename NutConfParser in NutParser. Implement the abstract class NutConfParser based on NutParser for configuration file parsing. Remove old C sample code.

**2.2030 2012-10-15 Michal Soltys <msoltyspl-guest@alioth.debian.org>**

- data/driver.list.in: HCL: add info about new APC models Info about new SMT, SMX and SURTD models which require additional card for "legacy" smart protocol.

**2.2031 2012-10-15 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- common/wincompat.c: Fix invalid memory allocation (fix a crash at exit time in upsmon)

**2.2032 2012-10-15 Arnaud Quette <arnaud.quette@free.fr>**

- configure.in, scripts/systemd/nut-driver.service.in: Fix driver path in systemd driver unit The driver path, in nut-driver.service, was not expanded correctly (reported by Marc Rehtë)
- configure.in: Only fail if SSL was explicitly requested Configuration should not abort if neither OpenSSL nor Mozilla NSS has been found, and if SSL was not explicitly requested by the user. This fixes the Buildbot compilation failure on Aix (build #206)

**2.2033 2012-10-12 Charles Lepple <clepple+nut@gmail.com>**

- tools/git-svn.authors, tools/svn2cl.authors: Update Emilien Kia's email address
-

**2.2034 2012-10-11 Arnaud Quette <arnaud.quette@free.fr>**

- docs/Makefile.am: Fix Solaris compilation failure

**2.2035 2012-10-10 Émilien Kia <emilien.kia@gmail.com>**

- common/Makefile.am, common/nutconf.cpp, include/nutconf.h, tests/Makefile.am, tests/nutconf.cpp: Initial conf library. Just parse tokens.

**2.2036 2012-10-10 Arnaud Quette <arnaud.quette@free.fr>**

- README: Spell check fix (test)
- .gitignore, configure.in, docs/.gitignore, docs/Makefile.am, docs/nut-qa.txt, docs/nut.dict: Spell checking framework implementation Implement a framework to spell check documentation source files, using Aspell. This includes an interactive build target (make spellcheck-interactive), and an automated one (make spellcheck), mainly for QA / Buildbot purpose. Note that a base NUT dictionary is also available (docs/nut.dict), providing a glossary of terms related to power devices and management
- drivers/tripplite\_usb.c: Remove POD ("Plain Old Documentation") With the approval of the author (Charles Lepple), remove POD ("Plain Old Documentation"). This embedded documentation was redundant, and is probably out of date, with respect to the AsciiDoc version
- drivers/powercom.c, drivers/powercom.h, drivers/upscod2.c: Remove unnecessary RCS \$Id lines

**2.2037 2012-10-05 Arnaud Quette <arnaud.quette@free.fr>**

- tools/nut-scanner/nut-scan.h: Fix compilation error Define IPMI\_PRIVILEGE\_LEVEL\_ADMIN value, in case FreeIPMI is not available

**2.2038 2012-10-04 Arnaud Quette <arnaud.quette@free.fr>**

- docs/man/nut-scanner.txt, drivers/nut-ipmipsu.c, tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scanner.c: Support power supplies scan over the network nut-scanner can now scan for power supplies with IPMI over LAN. This is currently limited to IPMI 1.5 only
- docs/man/nut-scanner.txt, drivers/nut-ipmipsu.c, tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scanner.c: Support power supplies scan over the network nut-scanner can now scan for power supplies with IPMI over LAN. This is currently limited to IPMI 1.5 only

**2.2039 2012-10-03 Arnaud Quette <arnaud.quette@free.fr>**

- docs/acknowledgements.txt: Update acknowledgements

**2.2040 2012-09-28 Charles Lepple <clepple+nut@gmail.com>**

- drivers/apcupsd-ups.c, drivers/apcupsd-ups.h: apcupsd-ups: Additional variables
  - drivers/apcupsd-ups.c, drivers/apcupsd-ups.h: apcupsd-ups: Remove multiplier from ups.load
  - drivers/.gitignore: Cleanup of svn:ignore list in drivers/ (no code change)
-

**2.2041 2012-09-27 Charles Lepple <clepple+nut@gmail.com>**

- docs/man/apcupsd-ups.txt, drivers/apcupsd-ups.c: apcupsd-ups: miscellaneous cleanup
- tools/git-svn.authors, tools/svn2cl.authors: Welcome, Václav! (SVN username mappings)

**2.2042 2012-09-27 Andreas Steinmetz**

- docs/man/Makefile.am, docs/man/apcupsd-ups.txt, drivers/Makefile.am, drivers/apcupsd-ups.c, drivers/apcupsd-ups.h: apcupsd client driver [https://alioth.debian.org/tracker/?func=detail&atid=411544&aid=313846&group\\_id=30602](https://alioth.debian.org/tracker/?func=detail&atid=411544&aid=313846&group_id=30602)

**2.2043 2012-09-21 Arnaud Quette <arnaud.quette@free.fr>**

- docs/nut-qa.txt: Update the link to the Ubuntu QRT script

**2.2044 2012-09-19 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/nut-libfreeipmi.c, m4/nut\_check\_libfreeipmi.m4, tools/nut-scanner/scan\_ipmi.c: Support for FreeIPMI 1.1.x and 1.2.x (#2) Prepare for supporting API changes in FreeIPMI 1.1.x and 1.2.x. This 2nd patch, which completes [SVN:3675], addresses FRU API changes, and removes code redundancy. This code has been tested with FreeIPMI 0.8.12 and the latest [FreeIPMI SVN] trunk r9505 (reported as 1.2.0.beta2 by pkgconfig)
- drivers/nut-libfreeipmi.c, m4/nut\_check\_libfreeipmi.m4, tools/nut-scanner/scan\_ipmi.c: Support for FreeIPMI 1.1.x and 1.2.x (#2) Prepare for supporting API changes in FreeIPMI 1.1.x and 1.2.x. This 2nd patch, which completes [SVN:3675], addresses FRU API changes, and removes code redundancy. This code has been tested with FreeIPMI 0.8.12 and the latest [FreeIPMI SVN] trunk r9505 (reported as 1.2.0.beta2 by pkgconfig)
- docs/download.txt, docs/website/news.txt: Update Windows package publications for 2.6.5-3

**2.2045 2012-09-18 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- scripts/Windows/wininit.c: update error logs
- scripts/Windows/Installer/NUT-Installer.xml: Typo in installer dialog box
- common/wincompat.c: Fix communication with named pipe

**2.2046 2012-09-17 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- clients/upssched.c: Fix upssched regression due to CVE-2012-2944
- common/common.c, common/wincompat.c: Fix Event Viewer regression Also, more consistent named pipe management

**2.2047 2012-09-17 Arnaud Quette <arnaud.quette@free.fr>**

- docs/download.txt, docs/website/news.txt: Update Windows package publications for 2.6.5-2

**2.2048 2012-09-12 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/bcmxcp\_usb.c: Fix data reception loop The new data reception algorithm was trying to get more data than it should (patch from Rich Wrenn)
-

**2.2049 2012-09-10 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- drivers/apc-hid.c, drivers/apc-hid.h, drivers/libhid.c: Add a tweak for APC Back UPS ES APC Back UPS ES have a buggy firmware which overflows on ReportID 0x0c, i.e. UPS.PowerSummary.RemainingCapacity. This results in battery.charge not being exposed and endless reconnections on systems with libusb reporting EOVERFLOW. And it results on a failure to init the driver for systems with libusb not reporting EOVERFLOW but EIO (i.e. on Windows).
- tools/nut-scanner/nut-scanner.c: [nut-scanner] Fix a crash when no start IP is provided.
- drivers/apc-hid.c, drivers/bcmxcp\_usb.c, drivers/belkin-hid.c, drivers/blazer\_usb.c, drivers/cps-hid.c, drivers/idowell-hid.c, drivers/liebert-hid.c, drivers/mge-hid.c, drivers/powercom-hid.c, drivers/richcomm\_usb.c, drivers/tripplite-hid.c, drivers/tripplite\_usb.c, drivers/usb-common.c, drivers/usb-common.h: Extend USB device support check (from Arnaud Quette) Use USBDevice\_t structure in is\_usb\_device\_supported(), instead of direct VendorID and ProductID. This allows to pass it to the specific processing handler for broader check

**2.2050 2012-09-07 Leo Arias <[elopio-guest@alioth.debian.org](mailto:elopio-guest@alioth.debian.org)>**

- conf/nut.conf.sample: Update nut.conf.sample (grammar and documentation) <https://alioth.debian.org/tracker/?func=detail&atid=4111>

**2.2051 2012-08-14 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- NEWS, UPGRADING, configure.in, data/driver.list.in, docs/Makefile.am, docs/configure.txt, docs/documentation.txt, docs/download.txt, docs/images/eaton-logo.png, docs/images/hostedby.png, docs/images/simple.png, docs/man/.gitignore, docs/man/Makefile.am, docs/man/index.txt, docs/man/macosex-ups.txt, docs/man/mge-shut.txt, docs/man/nutscan.txt, docs/man/nutscan\_scripts, docs/man/powercom.txt, docs/man/skel.txt, docs/nut-names.txt, docs/website/.gitignore, docs/website/Makefile.am, docs/website/css/layout.css, docs/website/news.txt, docs/website/old-news.txt, docs/website/projects.txt, docs/website/web-layout.conf, drivers/.gitignore, drivers/Makefile.am, drivers/macosex-ups.c, drivers/mge-hid.c, drivers/powercom-hid.c, drivers/skel.c, drivers/usbhid-ups.c, drivers/usbhid-ups.h, m4/nut\_check\_libltdl.m4: Merge from trunk [SVN:3679] to [SVN:3718] to ssl-nss-port

**2.2052 2012-08-09 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- INSTALL.nut, docs/images/eaton-logo.png, scripts/Windows/Installer/NUT-Installer.xml: Merge from trunk [SVN:3692] to [SVN:3713] (upgrade to 2.6.5)

**2.2053 2012-08-09 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- docs/website/.gitignore, docs/website/Makefile.am, docs/website/news.txt, docs/website/old-news.txt: Integrate archived news
- docs/nut-names.txt, drivers/mge-hid.c: Add shutdown ability switch to Eaton units Eaton HID units (using usbhid-ups or [new,old]mge-shut) were missing a data mapping to allow the change of the shutdown ability switch. The result was that the UPS was not powered off, even if all the protocol commands were sent (reported by Daniel O'Connor)
- docs/download.txt, docs/website/news.txt: Update Windows package publications for 2.6.5-1
- docs/man/.gitignore, docs/man/index.txt: Added macosex-ups manual page to the index Also add generated groff and HTML contents to the list of Subversion ignored files

**2.2054 2012-08-08 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- clients/upsmon.c, common/common.c, common/wincompat.c, drivers/dstate.c, drivers/main.c, drivers/upsdrvctl.c, include/common.h, scripts/Windows/Installer/NUT-Installer.xml, scripts/Windows/wininit.c, server/upsd.c: Get rid of console event and PID management Processes can now be stopped via named pipe. Processes can now check previous instances via named mutex.

**2.2055 2012-08-08 Arnaud Quette <arnaud.quette@free.fr>**

- NEWS, UPGRADING, configure.in, docs/website/news.txt: Final update for 2.6.5 release
- drivers/.gitignore: Subversion ignored files completion Mark oldmge-shut binary as Subversion ignored (no functional changes)
- docs/configure.txt, m4/nut\_check\_libltdl.m4: Complete libltdl configuration options Add configure options to add specific cflags (--with-libltdl-includes) and libs (--with-libltdl-libs) for libltdl. This serves at least to point at non standard location, as on FreeBSD (reported by David Durieux)

**2.2056 2012-08-06 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- scripts/Windows/wininit.c: typo in comments
- clients/upsmon.c, common/common.c, scripts/Windows/wininit.c: Fix UPS shutdown Now upsmon stop NUT service before shutting down the OS. When the service stops (with PD flag), it calls "upsdrvctl shutdown".

**2.2057 2012-08-06 Charles Lepple <clepple+nut@gmail.com>**

- configure.in, docs/man/Makefile.am, docs/man/macosex-ups.txt, drivers/Makefile.am, drivers/macosex-ups.c: macosex-ups: new OS X Power Sources meta-driver Mac OS X provides UPS status information in a format similar to what is shown for laptop batteries. This driver will convert that information into a format compatible with NUT.

**2.2058 2012-08-06 Arnaud Quette <arnaud.quette@free.fr>**

- docs/documentation.txt: Add a Wikipedia reference on Solar controller
- docs/Makefile.am, docs/images/eaton-logo.png, docs/images/hostedby.png, docs/website/Makefile.am, docs/website/css/web-layout.css, docs/website/web-layout.conf: Free NUT from Eaton website hosting NUT is no more hosted by Eaton. Arnaud Quette (NUT project leader) has taken over NUT hosting on his own, to give NUT back some independance. This effort is also part of a logic to stop crediting Eaton for contributions from others (especially Arnaud Quette, as an individual). The new hosting service is located, as for Arnaud's blog (<http://arnaud.quette.fr>) on Gandi servers, using PaaS. This will allow more flexibility and automation of the release process

**2.2059 2012-08-05 Charles Lepple <clepple+nut@gmail.com>**

- drivers/skel.c: Update comments in skel.c Fixed a typo, and added fatalx() as an alternative to fatal\_with\_errno()
- docs/man/skel.txt: Update skeleton driver man page.

**2.2060 2012-08-03 Charles Lepple <clepple+nut@gmail.com>**

- docs/man/nutscan.txt, docs/man/nutscan\_scan\_avahi.txt: nutscan documentation: editing

**2.2061 2012-08-02 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- common/wincompat.c: Disconnect named pipe correctly

**2.2062 2012-07-31 Arnaud Quette <arnaud.quette@free.fr>**

- docs/images/simple.png: Remove extraneous text
  - data/driver.list.in: HCL: Add support for UNITEK Alpha650ipF and Alpha650ipE Add UNITEK Alpha650ipF and Alpha650ipE (USB ID 0x0f03:0x0001) to the list of blazer\_usb supported models (reported by Pascal MIRALLES)
  - docs/website/projects.txt: Reference Buffalo NAS in Related projects Add a reference in the Related projects, on Buffalo TerraStation (Business-class) NAS range, which uses NUT for power protection
-

**2.2063 2012-07-30 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- docs/download.txt, docs/website/news.txt: First NUT virtualization package (VMware ESXI 5.0) Add the reference to the first NUT virtualization package. This one is currently an external effort to add VMware NUT client for ESXI 5.0. But this support will be part of NUT in the long run

**2.2064 2012-07-27 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- common/wincompat.c, drivers/genericups.c, include/wincompat.h: Fix w32\_setcomm and w32\_getcomm for genericups
- clients/upsclient.c, include/common.h, server/upsd.c, tools/nut-scanner/nutscan-ip.c: Adding Windows 2000 and older support

**2.2065 2012-07-25 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- scripts/Windows/Installer/NUT-Installer.xml: Update installer script with oldmge-shut instead of newmge-shut

**2.2066 2012-07-24 Charles Lepple <[clepple+nut@gmail.com](mailto:clepple+nut@gmail.com)>**

- data/driver.list.in, docs/man/powercom.txt, drivers/powercom-hid.c: Synchronize Powercom USB documentation and code comments. Apparently, there are at least two different models with the USB VID:PID of 0d9f:0004. This update is based on the following report by Gordon Longland: <http://lists.alioth.debian.org/pipermail/nut-upsuser/2012-July/007748.html>

**2.2067 2012-07-23 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- drivers/apc-mib.c, drivers/apcsmart.c, drivers/netxml-ups.c, drivers/nut-ipmipsu.c, drivers/nut-libfreeipmi.c, server/Makefile.am, server/ssl.c: Merge from trunk [SVN:3645] to [SVN:3690]
- common/wincompat.c, drivers/genericups.c, drivers/genericups.h, drivers/serial.c, include/wincompat.h: Porting genericups driver Not tested on real hardware

**2.2068 2012-07-23 Charles Lepple <[clepple+nut@gmail.com](mailto:clepple+nut@gmail.com)>**

- docs/man/powercom.txt: powercom: Mention this driver is serial only

**2.2069 2012-07-20 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- data/driver.list.in, drivers/Makefile.am: Switch mge-shut to oldmge-shut and newmge-shut to mge-shut
- docs/man/mge-shut.txt: Update mge-shut man page for notification argument.
- drivers/usbhid-ups.c: Add a "notification" parameter to newmge-shut driver. It is only here for compatibility with mge-shut driver. It is ignored since we are always using SHUT\_SYNC\_OFF in libshut.c.

**2.2070 2012-07-20 Emilien Kia <[kiae.dev@gmail.com](mailto:kiae.dev@gmail.com)>**

- README, docs/Makefile.am, docs/config-notes.txt, docs/contact-closure.txt, docs/macros.txt, docs/man/mge-shut.txt, docs/man/upscli\_connect.txt, docs/man/upscli\_disconnect.txt, docs/man/upscli\_fd.txt, docs/man/upscli\_get.txt, docs/man/upscli\_list\_next.txt, docs/man/upscli\_list\_start.txt, docs/man/upscli\_readline.txt, docs/man/upscli\_sendline.txt, docs/man/upscli\_ssl.txt, docs/man/upscli\_strerror.txt, docs/man/upscli\_upserror.txt, docs/man/upsclient.txt, docs/scheduling.txt, docs/security.txt: Fix trunk merge (pass 2). Apply changes to doc to prepare merge to trunk.

**2.2071 2012-07-19 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- docs/man/mge-shut.txt: Document ondelay parameter unit discrepancy for SHUT drivers mge-shut uses a ten seconds unit for ondelay whereas newmge-shut uses seconds.
- drivers/usbhid-ups.c, drivers/usbhid-ups.h: Add a lowbatt setting to newmge-shut in order to mimic mge-shut setting

**2.2072 2012-07-19 Emilien Kia <[kiae.dev@gmail.com](mailto:kiae.dev@gmail.com)>**

- clients/upsclient.c, server/netssl.c, server/netssl.h: Fix trunk merge. Refactor and clean to prepare merge to trunk.
- server/Makefile.am, server/conf.c, server/netcmds.h, server/{ssl.c ⇒ netssl.c}, server/{ssl.h ⇒ netssl.h}, server/upsd.c: Replace server/ssl.[hlc] by server/netssl.[hlc] in order to prepare nss branch merging.

**2.2073 2012-07-18 Emilien Kia <[kiae.dev@gmail.com](mailto:kiae.dev@gmail.com)>**

- .gitignore, INSTALL, MAINTAINERS, Makefile.am, NEWS, UPGRADING, autogen.sh, clients/Makefile.am, clients/upsc.c, clients/upsclient.c, clients/upsclient.h, clients/upsmon.c, clients/upsmon.h, clients/upsrw.c, clients/upssched.c, common/Makefile.am, common/common.c, common/parseconf.c, common/state.c, common/upsconf.c, compile, conf/nut.conf.sample, conf/upsd.conf.sample, configure.in, data/cmdvartab, data/driver.list.in, docs/.gitignore, docs/FAQ.txt, docs/Makefile.am, docs/acknowledgements.txt, docs/cables.txt, docs/cables/apc.txt, docs/config-notes.txt, docs/configure.txt, docs/design.txt, docs/developer-guide.txt, docs/developers.txt, docs/documentation.txt, docs/download.txt, docs/features.txt, docs/images/advanced.png, docs/images/bigbox.png, docs/images/bizarre.png, docs/images/nut-logo.png, docs/images/nut.svg, docs/images/simple.png, docs/macros.txt, docs/maintainer-guide.txt, docs/man/.gitignore, docs/man/Makefile.am, docs/man/apcsmart-old.txt, docs/man/apcsmart.txt, docs/man/bcmxcp.txt, docs/man/belkinunv.txt, docs/man/blazer.txt, docs/man/dummy-ups.txt, docs/man/index.txt, docs/man/metasys.txt, docs/man/nut-ipmipsu.txt, docs/man/nut-recorder.txt, docs/man/nut-scanner.txt, docs/man/nut.conf.txt, docs/man/nutscan.txt, docs/man/nutscan\_add\_device\_to\_device.txt, docs/man/nutscan\_add\_option\_to\_device.txt, docs/man/nutscan\_display\_parsable.txt, docs/man/nutscan\_display\_ups\_conf.txt, docs/man/nutscan\_free\_device.txt, docs/man/nutscan\_new\_device.txt, docs/man/nutscan\_scan\_avahi.txt, docs/man/nutscan\_scan\_ipmi.txt, docs/man/nutscan\_scan\_nut.txt, docs/man/nutscan\_scan\_snmp.txt, docs/man/nutscan\_scan\_usb.txt, docs/man/nutscan\_scan\_xml\_http.txt, docs/man/nutupsdrv.txt, docs/man/oneac.txt, docs/man/powercom.txt, docs/man/snmp-ups.txt, docs/man/ups.conf.txt, docs/man/upsc.txt, docs/man/upsccli\_list\_start.txt, docs/man/upsd.users.txt, docs/man/upsmon.txt, docs/man/upsrw.txt, docs/net-protocol.txt, docs/new-clients.txt, docs/new-drivers.txt, docs/nut-names.txt, docs/security.txt, docs/sock-protocol.txt, docs/stable-hcl.txt, docs/support.txt, docs/website/Makefile.am, docs/website/css/web-layout.css, docs/website/faviconut.ico, docs/website/faviconut.png, docs/website/news.txt, docs/website/projects.txt, docs/website/ups-protocols.txt, docs/website/web-layout.conf, drivers/.gitignore, drivers/Makefile.am, drivers/apc-hid.c, drivers/apc-mib.c, drivers/apcsmart-old.c, drivers/apcsmart-old.h, drivers/apcsmart.c, drivers/apcsmart.h, drivers/apcsmart\_tabs.c, drivers/apcsmart\_tabs.h, drivers/bcmxcp.c, drivers/bcmxcp.h, drivers/bcmxcp\_ser.c, drivers/bcmxcp\_usb.c, drivers/belkin-hid.c, drivers/belkinunv.c, drivers/bestfcom.c, drivers/bestfortress.c, drivers/bestpower-mib.c, drivers/bestups.c, drivers/blazer.c, drivers/blazer\_ser.c, drivers/blazer\_usb.c, drivers/compaq-mib.c, drivers/cps-hid.c, drivers/cyberpower-mib.c, drivers/cyberpower-mib.h, drivers/dstate.c, drivers/dstate.h, drivers/dummy-ups.c, drivers/dummy-ups.h, drivers/eaton-mib.c, drivers/eaton-mib.h, drivers/etapro.c, drivers/gamatronic.c, drivers/genericups.c, drivers/ietf-mib.c, drivers/isbmex.c, drivers/libhid.c, drivers/libshut.c, drivers/liebert-esp2.c, drivers/liebert-hid.c, drivers/main.c, drivers/masterguard.c, drivers/metasys.c, drivers/mge-hid.c, drivers/mge-mib.c, drivers/mge-shut.c, drivers/mge-utalk.c, drivers/microdowell.c, drivers/netvision-mib.c, drivers/netxml-ups.c, drivers/nut-ipmi.h, drivers/nut-ipmipsu.c, drivers/nut-libfreeipmi.c, drivers/oneac.c, drivers/oneac.h, drivers/powercom-hid.c, drivers/powercom.c, drivers/powercom.h, drivers/powerware-mib.c, drivers/raritan-pdu-mib.c, drivers/rhino.c, drivers/safenet.c, drivers/snmp-ups.c, drivers/snmp-ups.h, drivers/solis.c, drivers/tripplite-hid.c, drivers/tripplite\_usb.c, drivers/tripplitesu.c, drivers/upscode2.c, drivers/upshandler.h, drivers/usb-common.c, drivers/usbhid-ups.c, include/.gitignore, include/Makefile.am, include/common.h, include/extstate.h, include/nut\_stdint.h, include/parseconf.h, include/state.h, lib/.gitignore, lib/Makefile.am, lib/README, lib/libnutscan.pc.in, lib/libupsclient-config.in, lib/libupsclient.pc.in, m4/ax\_create\_stdint\_h.m4, m4/nut\_check\_libavahi.m4, m4/nut\_check\_libfreeipmi.m4, m4/nut\_check\_libltdl.m4, m4/nut\_check\_libwrap.m4, m4/nut\_check\_os.m4, m4/nut\_report\_feature.m4, scripts/HP-UX/.gitignore, scripts/HP-UX/makedepot.sh, scripts/HP-UX/nut.psf.in, scripts/Makefile.am, scripts/README, scripts/augeas/Makefile.am, scripts/augeas/README, scripts/avahi/nut.service.in, scripts/java/Makefile.am, scripts/java/README, scripts/java/jNut/README, scripts/java/jNut/pom.xml, .../main/java/org/networkupstools/jnut/ClientTest.java, .../java/org/networkupstools/jnut/Command.java, .../main/java/org/networkupstools/jnut/Device.java, .../org/networkupstools/jnut/Device.java, .../java/org/networkupstools/jnut/Scanner.java, .../org/networkupstools/jnut/StringLineSocket.java, .../java/org/networkupstools/jnut/ScannerTest.java, scripts/java/jNutList/README



scripts/java/jNutList/pom.xml, .../java/org/networkupstools/jnutlist/AppList.java, scripts/java/jNutWebAPI/README, scripts/java/jNutWebAPI/pom.xml, .../jnutwebapi/NutRestProvider.java, .../jnutwebapi/RestWSApplication.java, .../jnutwebapi/Scanner .../jNutWebAPI/src/main/webapp/WEB-INF/web.xml, scripts/logrotate/nutlogd, scripts/python/module/PyNUT.py, scripts/systemd/Makefile.am, scripts/systemd/README, scripts/systemd/nut-driver.service.in, scripts/systemd/nut-monitor.service.in, scripts/systemd/nut-monitor.service.in, scripts/systemd/nutshutdown.in, scripts/udev/.gitignore, scripts/udev/Makefile.am, scripts/udev/README, scripts/udev/nut-ipmipsu.rules.in, scripts/ufw/README, scripts/ufw/nut.ufw.profile.in, scripts/upower/95-upower-hid.rules, server/Makefile.am, server/netcmds.h, server/netget.c, server/netget.h, server/netinstcmd.c, server/netinstcmd.h, server/netlist.c, server/netlist.h, server/netmisc.c, server/netmisc.h, server/netset.c, server/netset.h, server/netssl.c, server/netssl.h, server/netuser.c, server/netuser.h, server/{ctype.h ⇒ nut\_ctype.h}, server/sstate.c, server/sstate.h, server/upsd.c, server/upsd.h, server/user.c, tests/Makefile.am, tests/cpptest.cpp, tests/example.cpp, tools/Makefile.am, tools/git-svn.authors, tools/nut-hclinfo.py, tools/{device-recorder.sh ⇒ nut-recorder.sh}, tools/nut-scanner/Makefile.am, tools/nut-scanner/README, tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-device.c, tools/nut-scanner/nutscan-device.h, tools/nut-scanner/nutscan-display.c, tools/nut-scanner/nutscan-init.c, tools/nut-scanner/nutscan-init.h, tools/nut-scanner/nutscan-ip.c, tools/nut-scanner/nutscan-ip.h, tools/nut-scanner/scan\_avahi.c, tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_usb.c, tools/nut-scanner/scan\_xml\_http.c, tools/nut-snmppinfo.py, tools/nut-usbinfo.pl, tools/svn2cl.authors: Merge from trunk [SVN:2848] to [SVN:3679] to ssl-nss-port. Note: a problem is occurring for server/ssl.[h\c]: they have been moved to server/netssl.[h\c] but consider them as removed. For the branch merging to trunk, consider paying attention to the case of these files (removing them by hand).

## 2.2074 2012-07-17 Arnaud Quette <arnaud.quette@free.fr>

- drivers/apc-mib.c: APC SNMP MIB update and completion Add available high precision values, new variables (input.transfer.reason, battery.current.total and ups.test.date), and move ambient.{temperature,humidity}.{high,low} to ambient.1.\*, since they relate to alarm threshold of external probe 1 (patch from Hong-Gunn Chew)
- docs/nut-names.txt: Clarify the use of multiple ambient sensors Multiple sensors can be exposed using the indexed notation. *ambient.\**, without index or using *0*, relates to the embedded sensor. For example: *ambient.temperature* represent the embedded sensor temperature. Other sensors (external, communication card, ...) can use indexes from *1* to *n*. For example: *ambient.1.temperature* for the first external sensor temperature.
- docs/nut-names.txt: NUT namespace completion Add two new variables *ups.test.date* and *battery.current.total*. Also add a note on the *ambient* collection for supporting multiple sensors

## 2.2075 2012-07-16 Arnaud Quette <arnaud.quette@free.fr>

- drivers/nut-ipmipsu.c, drivers/nut-libfreeipmi.c, m4/nut\_check\_libfreeipmi.m4, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan-avahi.c: Support for FreeIPMI 1.1.x and 1.2.x Prepare for supporting API changes in FreeIPMI 1.1.x and 1.2.x. This is mostly related to SDR API simplifications. A 2nd iteration will probably address code redundancy, whenever possible

## 2.2076 2012-07-10 Arnaud Quette <arnaud.quette@free.fr>

- data/driver.list.in, drivers/eaton-mib.c, drivers/eaton-mib.h, drivers/snmp-ups.c, drivers/snmp-ups.h: Add support for Eaton ePDU Switched (Pulizzi) Implement support for older Eaton / Powerware ePDU Switched. These were once sold as Pulizzi, and have now been replaced by newer model (Eaton Marlin implementation and others)

## 2.2077 2012-07-09 Emilien Kia <kiae.dev@gmail.com>

- configure.in: Fix CppUnit detection. Fix inconsistent test for CppUnit install (using pkg-config) to really enable unit tests.

## 2.2078 2012-07-05 Arnaud Quette <arnaud.quette@free.fr>

- docs/man/nut-ipmipsu.txt: Fix an error on possible power supplies status



**2.2079 2012-07-04 Arnaud Quette <arnaud.quette@free.fr>**

- clients/upssched.c: Fix upssched regression Coverity branch merge [SVN:3555] introduced a regression: any upssched.conf command that takes a second argument resulted in a defective frame sent to the parent process. Thus, the command was not executed (patch from Oliver Schonefeld)
- Makefile.am, configure.in, tests/.gitignore, tests/Makefile.am, tests/cpptest.cpp, tests/example.cpp: Add basic infrastructure for unit tests Merge eki-unittests branch, with some adjustments, to add a basic initial infrastructure for unit tests, using CppUnit (v1.9.6\+) (from Emilien Kia, from Eaton)

**2.2080 2012-07-03 Arnaud Quette <arnaud.quette@free.fr>**

- scripts/systemd/nut-driver.service.in, scripts/systemd/nutshutdown.in: Fix upsdrvctl call path upsdrvctl is located in @driverexecdir@, not @SBINDIR@ (reported by Michal Hlavinka, from Redhat)

**2.2081 2012-06-15 Arnaud Quette <arnaud.quette@free.fr>**

- configure.in: Adapt systemd installation directory #2 Complete previous commit by also adapting paths for service files

**2.2082 2012-06-14 Arnaud Quette <arnaud.quette@free.fr>**

- configure.in: Adapt systemd installation directory Adapt systemd installation directory for the shutdown script, so that it does not try to install it in the actual system directory, but to the pointed build directory, including a sub directory prefix
- docs/new-clients.txt: Fix broken link to upscli\_\*(3) HTML manual pages

**2.2083 2012-06-12 Arnaud Quette <arnaud.quette@free.fr>**

- configure.in: Fix WITH\_SSL and WITH\_NSS AM\_CONDITIONAL definitions nut\_with\_nss / nut\_with\_openssl must be set to "yes", otherwise AM\_CONDITIONAL counterpart WITH\_NSS / WITH\_SSL is not defined
- docs/new-drivers.txt: Forgotten mention upsdrv\_info\_t→name is also published as "driver.name" variable
- docs/man/belkinunv.txt, drivers/belkinunv.c, drivers/main.c, drivers/masterguard.c, drivers/metasys.c, drivers/mge-utalk.c, drivers/microdowell.c, drivers/nut-ipmipsu.c, drivers/safenet.c, drivers/triplitesu.c, drivers/usbhid-ups.c: Remove redundant driver.version. publication
- configure.in, docs/configure.txt, docs/man/nut-scanner.txt: Add missing references to libltdl for nut-scanner nut-scanner requires libltdl (Libtool dlopen abstraction) since NUT 2.6.3. Documentations have been completed, and nut-scanner build status is now exposed in the build configuration summary
- drivers/snmp-ups.c: Fix publication of driver.version.data Publish the MIB name and version in driver.version.data, rather than merged into driver.version.internal
- drivers/netxml-ups.c: Fix publication of driver.version.data netxml-ups subdriver version is to be tracked in driver.version.data, not in driver.version.internal
- docs/nut-names.txt: Add missing variable driver.version.data Add variable driver.version.data, to track version of the internal data mapping, for generic drivers (reported by Luiz Angelo Daros de Luca)
- docs/nut-names.txt: Fix comment for driver.version.internal Drivers internal version are always tracked separately, and stored in driver.version.internal

**2.2084 2012-06-11 Michal Soltys <msoltyspl-guest@alioth.debian.org>**

- drivers/apcsmart.c: apcsmart: tcsetattr/tcgetattr addendum This small patch moves the comparison sequence into separate function. No functional changes. Also minor rebase! run on defines.

**2.2085 2012-06-11 Arnaud Quette <arnaud.quette@free.fr>**

- data/driver.list.in: HCL: Add support for REDi Blazer Add REDi Blazer 400VA / 600VA / 800VA to the list of blazer\_ser supported models (reported by Marius Gavrilescu)
- docs/nut-names.txt: Fix a typo error on power.minimum description power.minimum is really the minimum seen apparent power in VA (reported by Luiz Angelo Daros de Luca)

**2.2086 2012-06-07 Charles Lepple <clepple+nut@gmail.com>**

- drivers/oneac.h: Remove unused constants to fix LLVM compilation error.

**2.2087 2012-06-07 Arnaud Quette <arnaud.quette@free.fr>**

- data/driver.list.in, drivers/blazer\_usb.c: HCL: Add support for Online Zinto A to blazer\_usb Add Online Zinto A (USB ID 0x06da:0x0601) to the list of blazer\_usb supported models (reported by Carsten Burkhardt)

**2.2088 2012-06-05 Arnaud Quette <arnaud.quette@free.fr>**

- docs/website/news.txt, docs/website/projects.txt: WMNut updates Update WMNut release (0.64) and hosting URL

**2.2089 2012-06-04 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- common/wincompat.c, docs/man/upsd.users.txt, drivers/apc-mib.c, drivers/apcsmart.c, drivers/dummy-ups.h, drivers/netvision-mib.c, include/wincompat.h: Merge from trunk [SVN:3541] to [SVN:3644] (upgrade to 2.6.4)

**2.2090 2012-06-04 Arnaud Quette <arnaud.quette@free.fr>**

- docs/download.txt, docs/website/news.txt: Update Windows package publications for 2.6.4-1

**2.2091 2012-05-31 Arnaud Quette <arnaud.quette@free.fr>**

- NEWS, UPGRADING, configure.in, docs/website/news.txt: Final update for 2.6.4 release

**2.2092 2012-05-30 Prachi Gandhi <prachi-guest@alioth.debian.org>**

- scripts/Solaris/preinstall: Updated preinstall script for *nut* group, user checking
- Makefile.am, scripts/Solaris/Makefile.am, scripts/Solaris/preinstall: Added checking for existing *nut* group, user and updated package name

**2.2093 2012-05-30 Arnaud Quette <arnaud.quette@free.fr>**

- data/driver.list.in: HCL: Add support for Cyber Power Systems CP1000PFCLCD Add CyberPower Systems CP1000PFCLCD (USB ID 0x0764:0x0501) to the list of usbhid-ups supported models (reported by David Owen)
  - drivers/apc-mib.c: Track more APC SNMP sysOID values, as comments
  - drivers/upshandler.h: Fix code spacing (no functional change)
  - drivers/bcmxcp\_ser.c, drivers/bcmxcp\_usb.c: Add some debug traces on incoming / outgoing data
-

- **INSTALL:** Add missing reference to nut.conf manual page
- **drivers/bestfortress.c:** Improve Best Fortress LI675VA support Apply an old missed patch: all responses are preceded and terminated by "CR LF". But bestfortress driver discards anything after the first "CR LF". This patch trims everything up to the first LF. (patch from Jørgen Thomsen)
- **drivers/metasys.c:** Remove extraneous spaces (no functional changes)

#### **2.2094 2012-05-29 Prachi Gandhi <prachi-guest@alioth.debian.org>**

- **Makefile.am, configure.in, tools/nut-scanner/Makefile.am, tools/nut-scanner/nut-scan.h, tools/nut-scanner/nutscan-init.c, tools/nut-scanner/nutscan-init.h, tools/nut-scanner/scan\_snmp.c:** Changes in nut-scanner to remove Sparc *usmAESPrivProtocol* error while creating package

#### **2.2095 2012-05-29 Arnaud Quette <arnaud.quette@free.fr>**

- **common/parseconf.c:** Fix CVE-2012-2944: upsd can be remotely crashed NUT server (upsd), from versions 2.4.0 to 2.6.3, are exposed to crashes when receiving random data from the network. This issue is related to the way NUT parses characters, especially from the network. Non printable characters were missed from strings operation (such as strlen), but still copied to the buffer, causing an overflow. Thus, fix NUT parser, to only allow the subset Ascii charset from Space to \~ (Reported by Sebastian Pohle, Alioth bug #313636, CVE-2012-2944)
- **data/driver.list.in:** HCL: Add support for Lexis X-power Tigra 1kVA Add Lexis X-power Tigra 1kVA to the list of blazer\_ser or bestups supported models (reported by Tmima Pliroforikis Perifereiakis Enotitas Pierias)
- **data/driver.list.in:** HCL: Encourage the use of blazer\_ser instead of bestups Mention blazer\_ser as preferred compared to bestups. Recent changes to blazer\_ser have made it possible to use it instead of bestups. In the end, bestups will be replaced by blazer\_ser, as for other Megatec/Q1 drivers
- **drivers/blazer.c, drivers/blazer\_ser.c:** Improve Best UPS support in blazer Best UPS units, which use a subset of the Megatec/Q1 protocol, supported by the blazer drivers, can now work with blazer\_ser. This support is still limited, but already offers a decent set of features

#### **2.2096 2012-05-25 Arnaud Quette <arnaud.quette@free.fr>**

- **server/user.c:** Add debug traces for instcmds and actions Whenever upsd adds an instant command or an action, from upsd.users, display a debug trace
- **docs/man/upsd.users.txt:** Clarify multiple actions specification Add more details and an example, to illustrate multiple actions specification (reported by Emilien Kia, from Eaton)

#### **2.2097 2012-05-24 Arnaud Quette <arnaud.quette@free.fr>**

- **data/driver.list.in:** HCL: Add support for Eaton Management Card Contact Add Eaton Management Card Contact (ref 66104) to the list of mge-shut or mge-utalk supported models
- **drivers/compaq-mib.c:** HP SNMP completion Complete HP SNMP mapping table, with thresholds, nominal values and more commands

#### **2.2098 2012-05-23 Arnaud Quette <arnaud.quette@free.fr>**

- **docs/website/projects.txt:** Reference Thecus NAS in Related projects Add a reference in the Related projects, on Thecus NAS range, which uses NUT for power protection
-

**2.2099 2012-05-22 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/apcsmart.c, drivers/apcsmart.h: Complete previous commit for HP-UX HP-UX does not support VREPRINT, so make it conditional
- drivers/apcsmart.c, drivers/apcsmart.h: Fix commit [SVN:3603] Commit [SVN:3603] (fix tcsetattr() / tcgetattr() issue) has introduced some incompatibility with older Unix systems, such as Solaris, Aix and HP-UX. The present commit should address it. \* scripts/java/jNut/src/main/java/org/networkupstools/jnut/Variable.java: Adjust comment (no functional change)
- configure.in, docs/net-protocol.txt, server/netcmds.h, server/netmisc.c, server/netmisc.h: Add versioning to the network protocol Due to the number of recent evolutions to the network protocol, along with other possible future changes, NUT network protocol is now versioned. The chapter "Network protocol information", of the developer guide, stores the revision history, while a new "NETVER" command serves this information through the protocol

**2.2100 2012-05-21 Prachi Gandhi <prachi-guest@alioth.debian.org>**

- Makefile.am, scripts/HP-UX/Makefile, scripts/HP-UX/nut.psf.in, scripts/Makefile.am: generalized *make package* call for Solaris, HP-UX package; updated nut.psf.in for HP-UX

**2.2101 2012-05-21 Charles Lepple <clepple+nut@gmail.com>**

- drivers/belkin-hid.c: Fix Liebert firmware (incorrect exponents) There are at least two Liebert firmware types which both report a VID:PID of 10af:0001. The newer ones tend not to have the Belkin broken Usage Pages (and therefore use standard HID PDC paths) but they have incorrect exponents for some fields. This patch fixes the values for the latter implementation

**2.2102 2012-05-21 Arnaud Quette <arnaud.quette@free.fr>**

- data/driver.list.in: HCL: Complete the supported PowerWalker ranges Add PowerWalker Online VFI LCD, Line-Interactive VI LCD and Line-Interactive VI models to the list of blazer\_usb supported models
- data/driver.list.in: HCL: Add support for Microline C-Lion Innova ranges Add Microline C-Lion Innova models to the list of blazer\_usb supported models
- data/driver.list.in: HCL: Add support for KOLFF ranges Add KOLFF BLACK NOVA models to the list of blazer\_usb supported models
- data/driver.list.in: HCL: Add support Ippon INNOVA RT range Add Ippon INNOVA RT models to the list of blazer\_usb supported models
- data/driver.list.in: HCL: Add support for Gtec ranges Add Gtec models to the list of blazer\_ser or blazer\_usb supported models
- data/driver.list.in: HCL: Complete the supported EVER ranges Add EVER POWERLINE RT / 11 / 31 and DUO II Pro models to the list of blazer\_ser or blazer\_usb supported models
- data/driver.list.in: HCL: Add support for COVER ENERGY SA ranges Add COVER ENERGY SA models to the list of blazer\_usb supported models
- data/driver.list.in: HCL: Add support for Borri ranges Add Borri models to the list of blazer\_usb supported models
- data/driver.list.in: HCL: Add support for ARTronic ranges Add ARTronic models, both serial and USB, to the list of blazer\_ser and blazer\_usb supported models
- data/driver.list.in, drivers/netvision-mib.c: Add 3-phases support to Socomec Netvision MIB Improve Socomec Netvision MIB, by adding support for 3-phases UPS (patch from Manuel Bouyer)
- data/driver.list.in: HCL: Add support for PowerShield Defender 1200VA Add PowerShield Defender 1200VA (USB ID 0665:5161) to the list of blazer\_usb supported models (reported by Tom Clarkson)
- drivers/blazer.c, drivers/blazer\_ser.c, drivers/blazer\_usb.c: beeper.status belongs to the "ups" data collection

**2.2103 2012-05-16 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/apcsmart.c, drivers/apcsmart.h: Final fix to the tcsetattr() / tcgetattr() issue The most likely cause of all spurious differences between what was set on the port with tcsetattr() and what tcgetattr() shows are likely to do with the c\_local PENDIN flag, which is a status bit, not a control bit. It will change when there's unread pending input, which can be quite often on an APC UPS. The right way to compare struct termios values is to clear the status flags *after* the tcsetattr() and of course after the tcgetattr() call and then compare the result with what was set. Also set NOKERNINFO, if available, as we don't want the UPS or noise on the line to accidentally trigger status output back to the UPS, and finally make sure IEXTEN is also cleared along with ISIG since it too can cause weird things to happen. This change also adds some debug code to show any differences in the structures in a logical manner in debug output (and squashes one tiny compiler warning) (patch from Greg A. Woods)
- docs/config-notes.txt, docs/man/upsmon.txt: Whitespace fixes Remove some extraneous spaces, suggested by "git diff --check", and improve a bit formatting (patch #36 from Greg A. Woods)

**2.2104 2012-05-15 Prachi Gandhi <prachi-guest@alioth.debian.org>**

- scripts/Solaris/Makefile.am: Updated scripts/Solaris/Makefile.am to remove prototype, checkinstall
- scripts/Solaris/checkinstall, scripts/Solaris/precheck.py, scripts/Solaris/prototype: Deleted checkinstall, prototype files
- Makefile.am, scripts/Solaris/Makefile.am, scripts/Solaris/pkginfo.in, scripts/Solaris/prepackage.py, scripts/Solaris/preproto.pl: Added perl script to create prototype file on solaris platform, updated Makefile.am
- m4/nut\_check\_os.m4: Added perl script to create prototype file on solaris platform, updated Makefile.am

**2.2105 2012-05-15 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/snmp-ups.c, drivers/snmp-ups.h: Remove dead code Remove dead code, related to shutdown handling (no functional changes) (based on patch #29 from Greg A. Woods)
- docs/nut-names.txt: Fix formatting issue
- docs/nut-names.txt: Add missing battery.voltage data to the namespace Add missing battery.voltage.{low,high} to the standard NUT namespace
- docs/nut-names.txt, drivers/upscode2.c: Rename peakcurrent to current.peak (as per RFC) Rename peakcurrent to current.peak, since it is more coherent and suitable
- drivers/dummy-ups.c, drivers/dummy-ups.h: Update and cleanup Convert flags definitions to bitwise left shift, convert some comments about variables to actual values, and do a bit of cleanup (patch #27 from Greg A. Woods)
- drivers/blazer.c: Add comment on shutdown.return on delay value Add a comment reinforcing the need for ondelay=3 (partial patch #26 from Greg A. Woods)
- docs/man/snmp-ups.txt: Complete APC SNMP compatibility information Mention more varieties of APC SNMP cards, and mention the POWERNET MIB (patch #25 from Greg A. Woods)
- drivers/netvision-mib.c: Fix status processing for "ECO mode" When running in "ECO mode", the driver should report an ups.status set to "OL", or it otherwise ends up with an empty string that confuses upsmon (patch from Ivan Kuznetsov)

**2.2106 2012-05-14 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- server/Makefile.am: Keep same sockdebug's binary name for all OS.
  - configure.ac: Add general Windows conditional (by Arnaud Quette)
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**2.2107 2012-05-14 Arnaud Quette <arnaud.quette@free.fr>**

- docs/man/blazer.txt: Mention General Electric in blazer manual page Mention General Electric as a user of the Megatec/Q1 protocol (patch #24 from Greg A. Woods)
- clients/upsmon.h: Use bitwise left shift for flags definitions Use (1 << N) to define a bit flag at bit N, which is more coherent with other similar implementations in NUT (patch #23 from Greg A. Woods)
- clients/upsmon.c: Cosmetic changes Remove dead / redundant #defines, and enable interesting debug traces that were commented out (based on patch #22 from Greg A. Woods)
- drivers/apcsmart.h: Use bitwise left shift for status flags definitions Use (1 << N) to define a bit flag at bit N, which is more coherent with other similar implementations in NUT (patch #21 from Greg A. Woods)
- drivers/apcsmart.c, drivers/apcsmart.h: Don't be too strict about terminal settings Don't log an error when tcgetattr() reports different settings on the port (patch #20 from Greg A. Woods)
- tools/nut-usbinfo.pl: Better filtering on USB related files The current USB information extraction script is not optimal at filtering files that need to be inspected. While waiting for a proper rewrite, improve a bit more filenames filtering (patch #18 from Greg A. Woods)
- drivers/blazer\_ser.c: Quote the debug output for space visibility Quote the debug output so one can see how many spaces there are (patch #16 from Greg A. Woods)
- docs/cables/apc.txt: Update APC cabling information Update information about APC cable model numbering and revisions (patch #16 from Greg A. Woods)
- data/driver.list.in: HCL: GE Digital Energy updates Rename "GE" to "GE Digital Energy", which is more appropriate in this context. Also add GT Series 1000-3000 VA to the list of blazer\_ser supported models (patch #15 from Greg A. Woods)
- docs/developers.txt: Complete notes on spaces for alignements Add complementary note on the use of spaces for alignements (patch #14 from Greg A. Woods)
- docs/design.txt: Use more suitable examples Use an example driver name matching the unified NUT drivers generic manual page name (patch #13 from Greg A. Woods)
- drivers/mge-hid.c: Complete and update Eaton HID usages table

**2.2108 2012-05-11 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- server/Makefile.am, server/pipedebg.c: Add pipedebg program pipedebg has the same goal as socketdebug for the WIN32 side.

**2.2109 2012-05-11 Arnaud Quette <arnaud.quette@free.fr>**

- tools/Makefile.am: Fix typo in comment Fix a typo error in comment (reported by Fred Bohé, from Eaton)
  - scripts/upower/95-upower-hid.rules: Update upower script Update upower script with recent changes and updates (redundant with patch #6 from Greg A. Woods)
  - tools/Makefile.am: Explicit mention of Makefiles brokenness Document that, at least, this Makefile.am is broken by design (patch #5 from Greg A. Woods)
  - docs/man/apcsmart.txt: Fix documentation wording "there're" is not a valid contraction, especially not in a technical document (patch #4 from Greg A. Woods)
  - docs/man/apcsmart.txt: Always use upper case for the acronym "UPS" Be consistent in using all upper case for the acronym "UPS" (Ie Uninterruptible Power Supply) (patch #3 from Greg A. Woods)
  - docs/man/apcsmart.txt: Fix SmartUPS cabling nomenclature Correct the nomenclature of the SmartUPS cabling part numbers (patch #2 from Greg A. Woods)
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- configure.in: Fix a configure error message AsciiDoc might actually be installed but documentation might still not be build-able (earlier messages should hint at exactly what was missing) (patch #1 from Greg A. Woods)
- data/driver.list.in: HCL: Add support for ATEK Defensor range Add ATEK Defensor range (Innova series) to the list of blazer\_usb supported models
- data/driver.list.in: HCL: Fix EVER brand name The correct name is "EVER", not "EVER UPS", as per a request from the manufacturer

**2.2110 2012-05-10 Arnaud Quette <arnaud.quette@free.fr>**

- docs/website/news.txt: Update for WMNut 0.63 publication
- docs/website/ups-protocols.txt: Official Riello protocols publication

**2.2111 2012-05-09 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- clients/Makefile.am, clients/message.c, clients/upsmon.c, scripts/Windows/Installer/NUT-Installer.xml: Add an external wall-like application. In order to avoid weird behavior of MessageBox with MB\_SERVICE\_NOTIFICATION flag at exit time; I added an external application in charge of displaying the message boxes (much like the wall command).

**2.2112 2012-05-08 Prachi Gandhi <prachi-guest@alioth.debian.org>**

- Makefile.am, scripts/Solaris/Makefile.am, scripts/Solaris/prepackage.py: Added python script to create pkginfo.in and check-install scripts depending upon the solaris platform

**2.2113 2012-05-03 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- common/wincompat.c: Fix journal event truncation.

**2.2114 2012-05-03 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/libshut.c, drivers/mge-shut.c: Forgotten driver version bump
- clients/upsmon.c: Coverity fix on upsmon Remove an unneeded null check, that cause a Coverity error (reported by Michal Hlavinka from RedHat)
- drivers/libshut.c, drivers/mge-shut.c: Coverity fix on Eaton SHUT Fix some tests that are always false, regardless of the values of operands (reported by Michal Hlavinka from RedHat)

**2.2115 2012-05-02 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- scripts/Windows/Installer/NUT-Installer.xml: Add more DLLs in bin directory These are used by netxml-ups driver and nut-scanner tool.
  - scripts/Windows/Installer/BuildInstaller.bat: Make sure upssched.conf is DOS compatible
  - conf/upsd.conf.sample: Update comments for IPv6 on Windows platforms
  - scripts/Windows/Installer/NUT-Installer.xml: Add libneon-27.dll and libnetsnmp-30.dll in bin directory These are used respectively by netxml and snmp-ups drivers.
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**2.2116 2012-05-02 Arnaud Quette <arnaud.quette@free.fr>**

- docs/download.txt, docs/website/news.txt: Update Windows package publications
- common/Makefile.am, include/Makefile.am: Better handling of nut\_version.h nut\_version.h should not be distributed, since it is automatically built. Moreover, hard dependency in common/ is not needed since BUILT\_SOURCES reference ensure generation before any other target: <http://www.gnu.org/software/automake/manual/automake.html#Sources> (Reported by Regid Ichira, Debian bug #613643)

**2.2117 2012-04-27 Arnaud Quette <arnaud.quette@free.fr>**

- data/driver.list.in, drivers/cps-hid.c: Add support for CyberPower Systems PR6000LCDRTXL5U Add CyberPower Systems PR6000LCDRTXL5U (USB ID 0x0764:0x0601) to the list of usbhid-ups supported models (reported by Dax Kelson)
- data/driver.list.in: HCL: Complete HP supported devices list Add HP UPS Management Module to the list of snmp-ups supported models. Also complete serial compatibility for some models, using mge-shut

**2.2118 2012-04-26 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- scripts/Windows/Installer/NUT-Installer.xml: libupsclient-1.dll is needed in "bin" too
- scripts/Windows/Installer/NUT-Installer.xml: Add nut-scanner files and libupsclient-1.dll to the MSI installer
- scripts/Windows/Installer/BuildInstaller.bat: echo a comment

**2.2119 2012-04-25 Arnaud Quette <arnaud.quette@free.fr>**

- docs/man/nut-scanner.txt: Clarify nut-scanner compilation and distribution Document explicitly how nut-scanner is compiled, and how its features are made available, according to its dependencies (both compile time and runtime)

**2.2120 2012-04-24 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- tools/nut-scanner/scan\_nut.c: Merge from trunk [SVN:3511] to [SVN:3539]
- tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-init.c, tools/nut-scanner/nutscan-init.h, tools/nut-scanner/scan\_avahi.c, tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_usb.c, tools/nut-scanner/scan\_xml\_http.c: Cleaner exit for nut-scanner

**2.2121 2012-04-23 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- drivers/serial.h: Completely skip termios.h with WIN32 The latest MinGW raise errors on termios.h, so we skip it for now.
- tools/nut-scanner/scan\_avahi.c, tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_usb.c, tools/nut-scanner/scan\_xml\_http.c: Be more verbose when failing to dynamically load a library

**2.2122 2012-04-17 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- clients/upsmon.c: Make the message box of notify non-blocking
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**2.2123 2012-04-14 Arnaud Quette <arnaud.quette@free.fr>**

- docs/man/.gitignore, docs/man/Makefile.am, docs/man/index.txt, docs/man/nut-recorder.txt, tools/nut-recorder.sh: Create nut-recorder manual page
- drivers/tripplite-hid.c: HP USB UPS completion [#3](#) Remove R/T3000 USB ID (0x03f0:0x1fe5) from the TrippLite HID mapping, since it is supported by the Eaton HID mapping. This completes commit
- drivers/usbhid-ups.c: Correct Celsius temperatures that should be in Kelvin Check if raw value is in the Kelvin range, to detect buggy values that are already expressed in Celsius degrees, as found on some HP devices
- docs/developer-guide.txt, tools/Makefile.am, tools/{device-recorder.sh ⇒ nut-recorder.sh}: Rename device-recorder to nut-recorder
- data/driver.list.in: HCL: Reorder Dell devices by connection type

**2.2124 2012-04-10 Arnaud Quette <arnaud.quette@free.fr>**

- scripts/systemd/nut-driver.service.in, scripts/systemd/nut-monitor.service.in, scripts/systemd/nut-server.service.in, scripts/systemd/nutshutdown.in: Fix broken systemd integration in the build system Step 2: add the theoretical path templates to the systemd scripts. This however requires adjustments to the RPM package. Namely, upsd and upsmon will have to be installed in /sbin, instead of the current /usr/sbin
- configure.in, scripts/systemd/Makefile.am: Fix broken systemd integration in the build system Step 1: remove Makefile rules that were both useless, and causing warning. Generate nut-\*.service files from .in templates in configure, as it should be, which is currently void since there is no target to substitute. This has however required to export SBINDIR and PIDPATH through AC\_SUBST, in configure
- clients/upsrw.c, common/state.c, docs/man/upscli\_list\_start.txt, docs/man/upsrw.txt, docs/net-protocol.txt, docs/new-drivers.txt, docs/sock-protocol.txt, drivers/dstate.c, drivers/dstate.h, include/extstate.h, include/state.h, server/netget.c, server/netlist.c, server/netset.c, server/sstate.c, server/sstate.h: Support of ranges of values for writable variables It is now possible to specify one or more ranges of values for writable variables, using dstate\_addrange() in drivers. upsd also supports the new type *RANGE* for *GET TYPE*, along with the *LIST RANGE* command. Finally, users can interact through upsrw, which displays the supported ranges, and enforces new value checking against the provided boundaries
- drivers/mge-hid.c: HP USB UPS completion [#2](#) Address HP USB/HID devices, that use the Eaton HID definitions. This includes the latest products range (USB IDs 0x1fe5, 0x1fe6, 0x1fe7 and 0x1fe8), and few more variables and commands
- drivers/mge-hid.c: Fix Eaton / MGE outlet.2.switchable flags outlet.2.switchable should only be writable to enable ECO mode on Ellipse ECO, Protection Station and some 3S. Other models should only expose it as read only (reported by Prachi Gandhi from Eaton, Alioth bug [#313587](#))

**2.2125 2012-04-06 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- clients/Makefile.am, m4/nut\_check\_socketlib.m4: Fix conditional Makefile for WIN32
- clients/Makefile.am: Conditional Makefile for WIN32

**2.2126 2012-04-04 Arnaud Quette <arnaud.quette@free.fr>**

- scripts/Makefile.am, scripts/logrotate/nutlogd: Provide log rotation configuration for NUT Provide a basic configuration file for managing rotation (logrotate) of NUT log files, generated by upslog

**2.2127 2012-04-03 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- configure.ac: This doesn't make it through past merges.
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**2.2128 2012-04-02 Arnaud Quette <arnaud.quette@free.fr>**

- docs/nut-names.txt: Update the namespace Complete the namespace with missing variables and commands, that are either known or have had an RFC
- docs/man/.gitignore: Subversion ignored files completion Mark nutscan\_init.html as Subversion ignored (no functional changes)

**2.2129 2012-03-31 Arnaud Quette <arnaud.quette@free.fr>**

- data/driver.list.in: HCL: Add support for AEG Power Solutions PROTECT HOME Add AEG Power Solutions PROTECT HOME (USB ID 0x0665:0x5161) to the list of blazer\_ser and blazer\_usb supported models (reported by Joachim Schiele)

**2.2130 2012-03-30 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- tools/nut-scanner/nutscan-init.c: This is needed for non WIN32 too.
- common/common.c: Special case when sending signal 0

**2.2131 2012-03-30 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/bcmxcp\_usb.c: Add debug traces for read / write commands
- common/common.c, include/common.h: Improve support functions for trimming strings Enforce verifications in rtrim, and add an ltrim function

**2.2132 2012-03-29 Arnaud Quette <arnaud.quette@free.fr>**

- data/driver.list.in, drivers/blazer\_usb.c: Add support Innova online UPS family Add Innova T (0x06da:0x0201), Innova RT (0x06da:0x0005) and Innova 3/1 T (0x06da:0x0004) to the list of of blazer\_usb and blazer\_ser supported models. Innova series are online UPS supporting Q1 for compatibility, and many more commands. Better support, either through blazer\_\* rewrite or through a new driver, is considered as a future possibility

**2.2133 2012-03-26 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- common/wincompat.c: Small correction to error messages.

**2.2134 2012-03-24 Arnaud Quette <arnaud.quette@free.fr>**

- configure.in, docs/Makefile.am, docs/security.txt, scripts/Makefile.am, scripts/ufw/.gitignore, scripts/ufw/README, scripts/ufw/nut.ufw.profile.in: Uncomplicated Firewall (UFW) support Provide an Uncomplicated Firewall (UFW) profile (nut.ufw.profile) to tightly integrate NUT, along with some documentation completion for the Security chapter of the user manual

**2.2135 2012-03-23 Arnaud Quette <arnaud.quette@free.fr>**

- conf/nut.conf.sample, docs/man/nut.conf.txt: Fix nut.conf documentation and sample file Since nut.conf is intended to be sourced by shell scripts, spaces must not be added around the equal sign. Fix documentation and sample file to conform to this purpose, and add bold warning (reported by Tim Rice, Alioth bug #312452)
  - clients/upsmon.c, server/upsd.c: Detect duplicate instances of upsd / upsmon Fix a long standing issue, that is the lack of detection of duplicate upsd / upsmon instances when starting another one of these daemons. This previously resulted in inconsistencies, such as being unable to stop the daemon, due to its .pid file being removed by the newly started instance (last reported by Andrew Min Chang)
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**2.2136 2012-03-21 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- drivers/libshut.c: Avoid stack corruption on invalid frame In the protocol, the frame size can be 8 bytes max. That is why the frame buffer is only 8 bytes long. If the frame is corrupted, the size read may be up to 15, which may corrupt the stack while writing into the frame buffer. This patch add a simple sanity check on the size to avoid a crash and enforce protocol limitation.
- drivers/libshut.c: Fix SHUT variables read (from Arnaud Quette)
- drivers/bcmxcp.c, drivers/bcmxcp.h, drivers/bcmxcp\_usb.c: Change timeout for PW9120 Current timeout (1 sec) is too short for PW9120: numerous frames are lost. Setting this to 2 seconds fix this.
- drivers/libshut.c: Deactivate UPS notification Currently this driver is ignoring notification by automatically sending NACK when they are received. Nevertheless, this behavior creates communication errors with some UPS (M2200). So this patch completely disable the sending of notification from the UPS. Ideally we should correctly implement notifications management for optimal performance, but with this patch, at least, communication works.
- drivers/libshut.c: Fix shut notification mask

**2.2137 2012-03-16 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- tools/nut-scanner/scan\_nut.c: Fix indentation
- tools/nut-scanner/nutscan-init.c: Add #ifdef WIN32 for do\_upsconf\_args definition

**2.2138 2012-03-09 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- docs/config-notes.txt: Emphasize special characters
- data/driver.list.in, drivers/triplite-hid.c: HP USB UPS completion #1 Address HP USB/HID devices, that use the TrippLite HID definitions. This includes new ProductIDs, and few more variables and commands
- drivers/oneac.h: Remove extraneous comment start

**2.2139 2012-03-08 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- clients/upsclient.c, common/common.c, drivers/safenet.c, include/wincompat.h, server/conf.c: Clean up
- drivers/blazer\_usb.c, drivers/libusb0.c, drivers/usbhid-ups.c: Add comments about EPROTO and EOVERFLOW
- server/upsd.c: typo in comments
- drivers/blazer\_usb.c, drivers/libusb0.c, drivers/usbhid-ups.c, include/wincompat.h: Better handling of ETIMEDOUT
- common/parseconf.c, common/upsconf.c, docs/config-notes.txt: More flexible = character management in conf files This allow to support the following forms : *foo = bar*, *foo=bar*, *foo =bar* and *foo= bar*

**2.2140 2012-03-06 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- docs/man/oneac.txt, drivers/oneac.c, drivers/oneac.h: Improve general OneAC support (oneac 0.80) Improve support for all families of Oneac (EG, ON, OZ and OB), including support for more data and instant commands (patch from Bill Elliot)

**2.2141 2012-03-05 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- drivers/blazer.c, drivers/blazer\_ser.c, drivers/blazer\_usb.c: Guesstimate battery high and low voltages Add an automatic estimation for high and low voltages, to be able to determine battery charge. This should cover most cases, but a bold mention has been added at driver startup, to inform the user. Driver version (USB and serial) have been bumped to reflect this change
  - drivers/blazer.c: Set *FSD* status flag upon need As per the recent decision to allow driver to set *FSD* status flag, set *FSD* upon "Shutdown imminent" detection
-

**2.2142 2012-03-02 Arnaud Quette <arnaud.quette@free.fr>**

- autogen.sh, scripts/augeas/Makefile.am: Sanity check before python script execution Only generate Augeas ups.conf lens if we can import required Python modules (re,glob,codecs)
- docs/man/blazer.txt: Fix typo error in runtimecal example values
- docs/stable-hcl.txt: Improve formating
- docs/new-drivers.txt: Formalize the use of the FSD status flag As an exception, drivers are now allowed to set the "FSD" (Forced ShutDown) status flag when an imminent shutdown has been detected

**2.2143 2012-02-29 Charles Lepple <clepple+nut@gmail.com>**

- scripts/python/module/PyNUT.py: Add support for LIST CLIENTS, etc. to PyNUT. Patch by Rene Martín Rodríguez <rm-rodri@ull.edu.es>. Merged with typo fixes in repository. Covers LIST CLIENTS, FSD, HELP and VER. Module version bumped to 1.2.2. Discussion: <http://article.gmane.org/gmane.comp.monitoring.nut.devel/5871>
- server/netlist.c, server/upsd.c, server/upsd.h: Add new "LIST CLIENTS" command to NUT protocol. Patch by Rene Martín Rodríguez <rmrodri@ull.edu.es>, with indentation changed to tabs. Discussion: <http://article.gmane.org/gmane.comp.monitoring.nut.devel/5870>
- drivers/blazer.c: Update URL to Megatec protocol description.

**2.2144 2012-02-29 Arnaud Quette <arnaud.quette@free.fr>**

- clients/upsc.c, docs/man/upsc.txt: Client side implementation of "LIST CLIENT" Implement "LIST CLIENT" in upsc, using "-c <device name>"
- docs/net-protocol.txt, server/netlist.c: Adjust server side implementation of "LIST CLIENT" Commands of the "LIST" family have to be coherent with the command name. Ie, "LIST CLIENT" should use the same "CLIENT" prefix, or it will otherwise break client side verification mechanism
- server/netlist.c: Adjust "LIST CLIENTS" implementation Adjust "LIST CLIENTS" implementation to be more coherent with other network protocol commands
- docs/net-protocol.txt: Document new "LIST CLIENTS" command
- server/upsd.c, server/upsd.h: Remove upsd "info" command Adjust initial "LIST CLIENTS" commit, by removing the upsd "info" command, which is not suitable, and redundant with the "LIST CLIENT" command of the network protocol [Fixed compilation error]

**2.2145 2012-02-28 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/liebert-hid.c: UPower optimization Always spell manufacturer names the same way across the various USB drivers. This avoids duplication of manufacturer entries in scripts/upower/95-upower-hid.rules, during automatic generation

**2.2146 2012-02-27 Arnaud Quette <arnaud.quette@free.fr>**

- data/driver.list.in, drivers/cps-hid.c: Add support for CyberPower OR700LCDRM1U Add CyberPower OR700LCDRM1U (0x0764:0x0601) to the list of usbhid-ups supported models (reported by Brian McCann)

**2.2147 2012-02-22 Michal Soltys <[msoltyspl-guest@alioth.debian.org](mailto:msoltyspl-guest@alioth.debian.org)>**

- drivers/apcsmart.c: setvar\_string() and apc\_write\_long() bugfixes setvar\_string() couldn't function properly, due to the use of wrong variable. Not associated with any bugreport (reported directly to email).
- drivers/apcsmart.c: make tcsetattr()/tcgetattr() difference not fatal This is follow up from earlier bug report (#313395). Earlier commit should have fixed the issue, but the original submitter never commented on it. Just in case - instead of making it fatal, we only log the issue.

**2.2148 2012-02-20 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- drivers/snmp-ups.c, tools/nut-scanner/scan\_snmp.c: Better handling of Net-SNMP AES PrivProtocol Handle smartly issues related to Net-SNMP support and declaration of AES PrivProtocol

**2.2149 2012-02-19 Charles Lepple <[clepple+nut@gmail.com](mailto:clepple+nut@gmail.com)>**

- drivers/snmp-ups.c, drivers/snmp-ups.h: Don't allocate storage for variables in snmp-ups.h The header files should declare variables as extern, and they should be allocated in only one .c file (not all of the files which include the .h file). While this is not an immediate problem when only one .c file includes the .h file, it still should be fixed in case that changes in the future. Patch by Daniel Macks: <http://fink.cvs.sourceforge.net/viewvc/fink/experimental/dmacks/finkinfo/nut.patch?revision=1.1&view=markup>
- drivers/bcmxcp.c, drivers/bcmxcp.h: Don't allocate storage for variables in bcmxcp.h The header files should declare variables as extern, and they should be allocated in only one .c file (not all of the files which include the .h file). This was causing multiple symbol definitions on Mac OS X. Patch by Daniel Macks: <http://fink.cvs.sourceforge.net/viewvc/fink/experimental/dmacks/finkinfo/nut.patch?revision=1.1&view=markup>

**2.2150 2012-02-16 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- configure.ac: Cleaner regex addition for apcsmart driver (by Arnaud Quette)

**2.2151 2012-02-16 Charles Lepple <[clepple+nut@gmail.com](mailto:clepple+nut@gmail.com)>**

- tools/git-svn.authors, tools/svn2cl.authors: Update SVN username mappings

**2.2152 2012-02-16 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- data/driver.list.in, drivers/blazer\_usb.c: Add support for Online Yunto YQ450 Add Online Yunto YQ450 (0x06da:0x0002) to the list of blazer\_usb supported models (reported by Thomas Maisl)

**2.2153 2012-02-14 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- data/driver.list.in: Add support for Tripp-Lite OMNISMART500 Add Tripp-Lite OMNISMART500 (productID 0001) to the list of tripplite\_usb supported models (reported by Matt Schulte)

**2.2154 2012-02-10 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- data/driver.list.in: Support for Dell UPS Network Management Card Add Dell UPS Network Management Card to the list of snmp-ups and netxml-ups supported models. SNMP support currently relies on IETF (RFC-1628) MIB, and not on Dell UPS MIB

**2.2155 2012-02-09 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- drivers/blazer\_usb.c, drivers/mge-mib.c, drivers/richcomm\_usb.c, drivers/usb-common.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_avahi.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_usb.c, tools/nut-scanner/scan\_xml\_http.c: Merge from trunk: [SVN:3320] to [SVN:3435]
- tools/nut-scanner/scan\_snmp.c: Remove useless lib\_mutex and buggy dev\_mutex

**2.2156 2012-02-03 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- Makefile.am: Update ChangeLog generation and fix text wrapping Adapt the ChangeLog file generation process to correctly wrap text, even with the new *git style* format, used for Subversion commit messages

**2.2157 2012-02-02 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- drivers/bcmxcp.c, drivers/bcmxcp.h: Improve XCP support for battery status Add support for battery test publication in ups.test.result, and RB (replace battery) in ups.status

**2.2158 2012-01-31 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- drivers/bestfortress.c: Add more debug traces Add more debug traces, again, to work on the checksum corruption issue

**2.2159 2012-01-23 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- drivers/mge-mib.c: Clean and complete MGE MIB Complete MGE MIB for status, variables and commands, using IETF MIB OIDs when needed. Macro have also been replaced by actual numeric OID paths for better clarity.
- drivers/snmp-ups.c, drivers/snmp-ups.h: snmp-ups shutdown support snmp-ups now provides support for UPS shutdown, based on usbhid-ups mechanisms (composite commands and fallback). Composite commands are also supported. This means, for example, that if *shutdown.return* is not supported, a combination of *load.off* \+ *load.on* may be used.
- drivers/ietf-mib.c: Fix invalid variable name Beeper status belongs to the *ups* data collection
- drivers/snmp-ups.c: Check validity of instant commands before addition Prior to adding new instant commands, referenced OIDs are now checked for existence. This avoid adding commands that are not supported
- docs/man/upsmon.txt: Fix upsmon synopsis Add the missing *-K* (Test for the shutdown flag) to upsmon synopsis (reported by Regid Ichira)

**2.2160 2012-01-20 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- clients/upscmd.c, clients/upsrw.c, common/wincompat.c, drivers/dstate.c, include/wincompat.h: Add getpwuid and getpass functions.

**2.2161 2012-01-20 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- data/driver.list.in: Support for Riello Netman Plus 102 SNMP Card Add Riello Netman Plus 102 SNMP Card, and attached Sentinel SDL 6000-7 and Sentinel Dual SDH 1000-7 UPS, to the list of snmp-ups supported models (reported by Rainer Stumbaum)



**2.2162 2012-01-19 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- clients/upslog.c, clients/upsmon.c, clients/upssched.c, common/wincompat.c, include/wincompat.h: Add filter\_path function This allows blank characters both in data files name and command path
- scripts/Windows/wininit.c: Cleaner initialization of variables

**2.2163 2012-01-19 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/bestfortress.c: Add more debug traces, to work on the checksum corruption issue

**2.2164 2012-01-18 Arnaud Quette <arnaud.quette@free.fr>**

- docs/nut-names.txt, drivers/usbhid-ups.c: Adjust ups.start.auto value for shutdown commands When present, ups.start.auto value needs to be adjusted for shutdown.{return,stayoff} to behave as expected. This is limited to Eaton devices (reported by Rich Wrenn)

**2.2165 2012-01-16 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- common/wincompat.c, include/wincompat.h: Fix commands with blank in their path
- clients/upssched.c, clients/upssched.h: Fix porting of upssched
- drivers/dstate.c: Remove useless code

**2.2166 2012-01-11 Arnaud Quette <arnaud.quette@free.fr>**

- UPGRADING: Cleanup garbage line Remove garbage line that was added by accident during the AsciiDoc branch merge or work
- tools/nut-scanner/Makefile.am, tools/nut-scanner/nutscan-init.c, tools/nut-scanner/scan\_nut.c: Move libupscclient to weak runtime dependencies libupscclient, as other libraries used by nut-scanner, is now a weak runtime dependency, through the use of lt\_dl\*() functions. This means that libupscclient is not anymore required, but only suggested. This should also solve the distcheck-light compilation on Aix (on behalf of Frédéric Bohe, from Eaton)

**2.2167 2012-01-10 Michal Hlavinka <mhlavink@redhat.com>**

- drivers/dstate.c: do not forget to check send\_to\_one return value send\_to\_one free()s connection, we can't use it after failure.
  - drivers/bcmxcp.c: do not call getinfo twice, use returned value for parsing result was stored, but never used. Another dstate\_getinfo call was used instead of stored value. Probably result of copy-paste.
  - tools/nut-scanner/scan\_xml\_http.c: do not use unterminated string in strlen recvfrom returns raw data without null termination, this string can't be used in strlen. Use number of recieved bytes returned by recvfrom instead of strlen.
  - clients/upssched.c: do not send garbage on retry because write and read commands shared one buffer, on retry we did not send command again, but last read data
  - drivers/triplite\_usb.c: prevent buffer overflow in hexascdump haxascdump uses fixed size static buffer, but it had no checks to assure result can fit into that buffer.
  - tools/nut-scanner/scan\_nut.c: ups variable was allocated, but not free()d
  - drivers/rhino.c, drivers/solis.c: use automatic time\_t variable instead of allocated one time\_t value is small enough to be automatic variable instead of allocated one. It eliminates risk we forget to free it again.
  - drivers/bcmxcp.c: do not forget to free pTmp even if len is zero, pTmp should be freed
-

- drivers/mge-utalk.c: prevent null pointer dereference in strchr in some cases p can be null causing null pointer dereference of v (initialized to 0) in strchr command
- drivers/bcmxcp\_usb.c: Fix condition in re-try loop making error checking unreachable for loop with condition retry <= MAX\_TRIES ends with retry = MAX\_TRIES+1. This breaks following error check with retry == MAX\_TRIES condition, because it's true only in case when last retry actually succeeded.

**2.2168 2012-01-09 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/bestups.c: Add the missing driver variable "battvoltmult" (patch from Sadara Kael)

**2.2169 2012-01-06 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/snmp-ups.c: Reword the message when sysOID detection fails
- drivers/compaq-mib.c: Add the sysOID value, and bump the MIB version to 1.1 (reported by Jack Challen)
- docs/download.txt: Remove inline SHA-256 sum, and provide links to MD5 and SHA-256 sums

**2.2170 2012-01-05 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- include/Makefile.am: Fix "make distcheck-light" (by Arnaud Quette)

**2.2171 2012-01-05 Arnaud Quette <arnaud.quette@free.fr>**

- server/netget.c: GET UPSDESC does not need device sanity checks (i.e. connected, with fresh data) to answer (reported by Emilien Kia, Alioth bug #313323)
- data/driver.list.in: Add Dynamix 1000VA USB to the list of blazer\_usb supported models (requires "langid\_fix=0x0409" in ups.conf; reported by Glen Ogilvie)

**2.2172 2012-01-04 Arnaud Quette <arnaud.quette@free.fr>**

- docs/download.txt: Add the missing SHA-256 sum on the Download page / section (needs to be generated after the distribution package)
- docs/website/news.txt: Update 2.6.3 release date

**2.2173 2012-01-03 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- docs/config-notes.txt: Add a note about file names with space characters in the documentation.
- tools/nut-scanner/nut-scanner.c: Fix nut scanner SNMP v3 help message.
- docs/man/nut-scanner.txt: Fix nut scanner SNMP v3 documentation.

**2.2174 2012-01-03 Arnaud Quette <arnaud.quette@free.fr>**

- NEWS, UPGRADING, configure.in, docs/website/news.txt: Final update for 2.6.3 release
  - drivers/dummy-ups.c: Add a comment for further processing
-

**2.2175 2011-12-30 Prachi Gandhi <prachi-guest@alioth.debian.org>**

- configure.in, scripts/Solaris/Makefile.am, scripts/Solaris/checkinstall, scripts/Solaris/nut.in, scripts/Solaris/pkginfo.in, scripts/Solaris/postinstall.in, scripts/Solaris/postremove, scripts/Solaris/preinstall, scripts/Solaris/preremove.in, scripts/Solaris/prototype: Added Solaris Packaging scripts

**2.2176 2011-12-17 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/blazer\_usb.c: Actually apply the langid\_fix value, ... .. when calling usb\_get\_string (reported by Charles Lepple)
- data/driver.list.in, docs/man/blazer.txt, drivers/blazer\_usb.c: Try to fix language ID support for USB units from LDLC, Dynamix ... .. and no names in blazer\_usb (reworked patch, from Brian R. Smith and Aurélien Grenotton)

**2.2177 2011-12-16 Arnaud Quette <arnaud.quette@free.fr>**

- scripts/HP-UX/.gitignore: Add the generated HP-UX packaging script (.psf) to the list of ignored files
- drivers/eaton-mib.c, drivers/snmp-ups.c: Fix newer Eaton ePDU OIDs declaration ordering, ... .. so that it better supports the various models (switched or advanced monitored)

**2.2178 2011-12-15 Arnaud Quette <arnaud.quette@free.fr>**

- clients/upsclient.c, drivers/belkinunv.c, drivers/etapro.c, drivers/gamatronic.c, drivers/isbmex.c, drivers/libshut.c, drivers/metasys.c, drivers/mge-shut.c, drivers/microdowell.c, drivers/nut-libfreeipmi.c, drivers/rhino.c, drivers/solis.c: Fix set but not used variables [-Wunused-but-set-variable] (including patch from Regid Ichira)

**2.2179 2011-12-13 Arnaud Quette <arnaud.quette@free.fr>**

- compile: Update compile script, as per the latest version available in Automake (1.11)
- docs/man/.gitignore: Add the generated nutscan\_init.3 Groff manual page... .. to the list of ignored files
- tools/nut-scanner/Makefile.am, tools/nut-scanner/scan\_ipmi.c: Add IPMI power supplies discovery to nut-scanner
- drivers/nut-libfreeipmi.c, m4/nut\_check\_libfreeipmi.m4: Separate IPMI requirements, between FRU lookup and monitoring. This way, we can at least compile nut-scanner with IPMI support and a limited (no monitoring) version of nut-ipmipsu, using older (pre 1.0.1) FreeIPMI versions

**2.2180 2011-12-12 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- tools/nut-scanner/Makefile.am: Unconditional compile of scan\_\* source code... .. since now they contains the relevant stub function.
  - tools/nut-scanner/scan\_avahi.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_usb.c, tools/nut-scanner/scan\_xml\_http.c: Clean call to nutscan include files
  - tools/nut-scanner/nutscan-init.c: Fix wrong variable name
  - tools/nut-scanner/nut-scanner.c: Fix wrong call to nutscan\_scan\_avahi
  - tools/nut-scanner/Makefile.am: Forgot to include nutscan-init.h in Makefile
  - docs/man/Makefile.am, docs/man/nutscan\_init.txt, docs/man/nutscan\_scan\_avahi.txt, docs/man/nutscan\_scan\_ipmi.txt, docs/man/nutscan\_scan\_nut.txt, docs/man/nutscan\_scan\_snmp.txt, docs/man/nutscan\_scan\_usb.txt, docs/man/nutscan\_scan\_xml\_http.txt: Update documentation
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- tools/nut-scanner/scan\_avahi.c, tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_usb.c, tools/nut-scanner/scan\_xml\_http.c: Make sure not to call any non-initialized function pointers.
- tools/nut-scanner/Makefile.am, tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-init.c, tools/nut-scanner/nutscan-init.h, tools/nut-scanner/scan\_avahi.c, tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_usb.c, tools/nut-scanner/scan\_xml\_http.c: Keep the same API whatever the library are at compile time... (so some scan functions may be stub only) Add an init function \+ variable to know the available scan method at run time. Update nut-scanner accordingly.

## 2.2181 2011-12-09 Charles Lepple <clepple+nut@gmail.com>

- autogen.sh: Force files to be overwritten (especially for libtool)

## 2.2182 2011-12-09 Arnaud Quette <arnaud.quette@free.fr>

- Makefile.am, configure.in, libltdl/COPYING.LIB, libltdl/Makefile.am, libltdl/Makefile.in, libltdl/Makefile.inc, libltdl/README, libltdl/aclocal.m4, libltdl/argz.c, libltdl/argz\_.h, libltdl/config-h.in, libltdl/config/compile, libltdl/config/config.guess, libltdl/config/config.sub, libltdl/config/depcomp, libltdl/config/edit-readme-alpha, libltdl/config/general.m4sh, libltdl/config/getopt.m4sh, libltdl/config/install-sh, libltdl/config/ltmain.m4sh, libltdl/config/ltmain.sh, libltdl/config/mdate-sh, libltdl/config/missing, libltdl/config/mkstamp, libltdl/config/texinfo.tex, libltdl/configure, libltdl/configure.ac, libltdl/libltdl/ltalloc.h, libltdl/libltdl/lt dirent.h, libltdl/libltdl/ltglibc.h, libltdl/libltdl/ltprivate.h, libltdl/libltdl/ltstrl.h, libltdl/libltdl/lt\_dloader.h, libltdl/libltdl/lt\_error.h, libltdl/libltdl/lt\_system.h, libltdl/libltdl/slist.h, libltdl/loaders/dld\_link.c, libltdl/loaders/dlopen.c, libltdl/loaders/dyld.c, libltdl/loaders/load\_add\_on.c, libltdl/loaders/loadlibrary.c, libltdl/loaders/preopen.c, libltdl/loaders/shl\_load.c, libltdl/ltalloc.c, libltdl/lt dirent.c, libltdl/ltstrl.c, libltdl/lt\_dloader.c, libltdl/lt\_error.c, libltdl/lt dl.c, libltdl/lt dl.h, libltdl/m4/argz.m4, libltdl/m4/autobuild.m4, libltdl/m4/libtool.m4, libltdl/m4/lt dl.m4, libltdl/m4/lt options.m4, libltdl/m4/lt sugar.m4, libltdl/m4/lt version.in, libltdl/m4/lt version.m4, libltdl/m4/lt~obsolete.m4, libltdl/slist.c, libltdl/stamp-mk, m4/nut\_check\_libltdl.m4, tools/nut-scanner/Makefile.am: Delete the bundled version of libltdl, ... and add detection and integration for the system provided version. nut-scanner build now depends on the existence of libltdl on the system
- autogen.sh: Revert commit [SVN:3344], ...since it causes problems with documentation build, due to INSTALL being overwritten

## 2.2183 2011-12-07 Frederic Bohe <fbohe-guest@alioth.debian.org>

- Makefile.am, configure.in, libltdl/COPYING.LIB, libltdl/Makefile.am, libltdl/Makefile.in, libltdl/Makefile.inc, libltdl/README, libltdl/aclocal.m4, libltdl/argz.c, libltdl/argz\_.h, libltdl/config-h.in, libltdl/config/compile, libltdl/config/config.guess, libltdl/config/config.sub, libltdl/config/depcomp, libltdl/config/edit-readme-alpha, libltdl/config/general.m4sh, libltdl/config/getopt.m4sh, libltdl/config/install-sh, libltdl/config/ltmain.m4sh, libltdl/config/ltmain.sh, libltdl/config/mdate-sh, libltdl/config/missing, libltdl/config/mkstamp, libltdl/config/texinfo.tex, libltdl/configure, libltdl/configure.ac, libltdl/libltdl/ltalloc.h, libltdl/libltdl/lt dirent.h, libltdl/libltdl/ltglibc.h, libltdl/libltdl/ltprivate.h, libltdl/libltdl/ltstrl.h, libltdl/libltdl/lt\_dloader.h, libltdl/libltdl/lt\_error.h, libltdl/libltdl/lt\_system.h, libltdl/libltdl/slist.h, libltdl/loaders/dld\_link.c, libltdl/loaders/dlopen.c, libltdl/loaders/dyld.c, libltdl/loaders/load\_add\_on.c, libltdl/loaders/loadlibrary.c, libltdl/loaders/preopen.c, libltdl/loaders/shl\_load.c, libltdl/ltalloc.c, libltdl/lt dirent.c, libltdl/ltstrl.c, libltdl/lt\_dloader.c, libltdl/lt\_error.c, libltdl/lt dl.c, libltdl/lt dl.h, libltdl/m4/argz.m4, libltdl/m4/autobuild.m4, libltdl/m4/libtool.m4, libltdl/m4/lt dl.m4, libltdl/m4/lt options.m4, libltdl/m4/lt sugar.m4, libltdl/m4/lt version.in, libltdl/m4/lt version.m4, libltdl/m4/lt~obsolete.m4, libltdl/slist.c, libltdl/stamp-mk, tools/nut-scanner/Makefile.am, tools/nut-scanner/scan\_avahi.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_usb.c, tools/nut-scanner/scan\_xml\_http.c: First set of modification to include libltdl

## 2.2184 2011-12-05 Arnaud Quette <arnaud.quette@free.fr>

- data/driver.list.in, docs/man/snmp-ups.txt, drivers/Makefile.am, drivers/cyberpower-mib.c, drivers/cyberpower-mib.h, drivers/snmp-ups.c: Add Cyber Power Systems with SNMP RMCARD (100, 201, 202 and 301) ... to the list of snmp-ups supported models (patch from Eric Schultz)
- drivers/snmp-ups.c: Remove the Eaton Marlin hook, for base outlet index ... since it has been fixed by a new firmware revision

**2.2185 2011-11-29 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- common/wincompat.c: Fix blazer\_ser driver (from Paul Fertser)
- common/wincompat.c: Don't leave one liner alone after if.

**2.2186 2011-11-29 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- tools/nut-snmpinfo.py: Fix indentation and use open() instead of file(), to better support Python 3 (Alioth bug [#313446](#), patch from Bohdan Popovych)

**2.2187 2011-11-25 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- drivers/nut-ipmi.h: Fix wrong prototype declaration, that was causing a compilation warning (implicit declaration of function 'nut\_ipmi\_get\_sensors\_status')

**2.2188 2011-11-24 Prachi Gandhi <[prachi-guest@alioth.debian.org](mailto:prachi-guest@alioth.debian.org)>**

- Makefile.am, configure.in, scripts/Makefile.am, scripts/Solaris/Makefile.am, scripts/Solaris/makelocal.sh, scripts/Solaris/pkginfo.in, scripts/Solaris/prototype: Reverted changes made for Solaris packaging files in [SVN:3326] ... added files in NUT\_packaging branch
- Makefile.am, configure.in, scripts/Makefile.am, scripts/Solaris/Makefile.am, scripts/Solaris/makelocal.sh, scripts/Solaris/pkginfo.in, scripts/Solaris/prototype: Solaris NUT package files added
- Makefile.am, configure.in, scripts/Makefile.am, scripts/Solaris/Makefile.am, scripts/Solaris/makelocal.sh, scripts/Solaris/pkginfo.in, scripts/Solaris/prototype: Solaris NUT package files added

**2.2189 2011-11-24 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- scripts/Solaris/pkginfo.in: BASEDIR must also be adapted from configure settings
- scripts/Solaris/Makefile.am: Add missing dependencies, and distribution rules
- scripts/Makefile.am: There is no need to list Solaris/pkginfo.in there, ... ..since *Solaris* is listed in SUBDIRS, and *pkginfo.in* is listed in configure.in
- scripts/Solaris/Makefile.am: Remove makelocal.sh from check\_SCRIPTS, ... ..since it is not meant to be run at "make check" time

**2.2190 2011-11-15 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- clients/Makefile.am, clients/upsclient.c, common/Makefile.am, common/wincompat.c, conf/upsmon.conf.sample.in, docs/Makefile.am, drivers/apc-mib.c, drivers/apcsmart-old.h, drivers/apcsmart.c, drivers/mge-mib.c, drivers/netvision-mib.c, drivers/nut-ipmipsu.c, drivers/snmp-ups.c, server/Makefile.am, server/ssl.c, server/upsd.c, tools/nut-scanner/nutscan-ip.c, tools/nut-scanner/nutscan-ip.h, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http.c: Merge from trunk [SVN:3060] to [SVN:3318]

**2.2191 2011-11-15 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- drivers/blazer\_usb.c, drivers/usb-common.h: Revert commit [SVN:2993] and [SVN:2994]. This enables again inclusion of buggy USB Device and Vendor IDs, supported by blazer\_usb, in udev rules file (Reported by Stanislav Brabec, from Suse)
  - tools/Makefile.am: Add missing comment
-

**2.2192 2011-11-12 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/mge-mib.c: Add upsmsgBatteryLowCondition OID to the status mapping (reported by Kiss Gabor (Bitman))

**2.2193 2011-11-11 Praveen Kumar <praveenkumar-guest@alioth.debian.org>**

- scripts/HP-UX/makedepot.sh: script file to create package (depot) for HP-UX

**2.2194 2011-11-08 Arnaud Quette <arnaud.quette@free.fr>**

- docs/website/web-layout.conf: Complete search keywords
- docs/website/web-layout.conf: Final fix for the displaying of the legend, to work on all browsers, ... ..while still being conforming to W3C validation

**2.2195 2011-11-07 Arnaud Quette <arnaud.quette@free.fr>**

- docs/website/web-layout.conf: Fix displaying of the legend

**2.2196 2011-11-05 Michal Soltys <msoltyspl-guest@alioth.debian.org>**

- docs/cables.txt, docs/man/apcsmart.txt: apcsmart.txt: minor documentation update Broken diagram link and 940-0024E cable mention (reported by Jonathan Laventhol).

**2.2197 2011-11-05 Arnaud Quette <arnaud.quette@free.fr>**

- conf/upsd.conf.sample, server/upsd.c: Don't fail to start if at least one of the listening interface is available. This is needed on systems where either IPv4 or IPv6 is disabled, and no explicit LISTEN directive has been specified (Reported by Pavel Zubkou, Debian bug #598741)

**2.2198 2011-11-02 Praveen Kumar <praveenkumar-guest@alioth.debian.org>**

- configure.in, scripts/HP-UX/nut.psf.in: Adding packaging script for HP-UX

**2.2199 2011-10-31 Arnaud Quette <arnaud.quette@free.fr>**

- docs/download.txt, docs/website/news.txt: Publish update jNut 0.2, along with the new jNutWebAPI (contributed by Emilien Kia, from Eaton)

**2.2200 2011-10-28 Emilien Kia <kiae.dev@gmail.com>**

- scripts/java/README, scripts/java/jNutWebAPI/README, scripts/java/jNutWebAPI/pom.xml, .../jnutwebapi/NutRestProvider.java, .../jnutwebapi/RestWSApplication.java, .../jnutwebapi/ScannerProvider.java, .../jNutWebAPI/src/main/webapp/WEB-INF/web.xml  
Initial commit of jNutWebAPI.
  - scripts/java/jNut/.gitignore, scripts/java/jNut/src/main/java/org/networkupstools/jnut/Scanner.java: Fix a little bug with function namming (get instead of set).
-

**2.2201 2011-10-27 Arnaud Quette <arnaud.quette@free.fr>**

- docs/maintainer-guide.txt: Create a basic NUT maintainer guide, ... to start tracking and improving maintenance workflow
- drivers/bcmxcp\_usb.c: Handle disconnection issues and reconnection mechanism (bug reported by Rich Wrenn)

**2.2202 2011-10-25 Michal Soltys <msoltyspl-guest@alioth.debian.org>**

- drivers/apcsmart.c: minor correction Assigning 0 directly was wrong (actually, a leftover from earlier version of the code that was removed) - ser\_set\_speed() prepares the port initially, we only adjust certain options.

**2.2203 2011-10-25 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- tools/nut-scanner/scan\_snmp.c: Add sanity checks
- tools/nut-scanner/scan\_avahi.c: Remove unused variable

**2.2204 2011-10-25 Emilien Kia <kiae.dev@gmail.com>**

- .../test/java/org/networkupstools/jnut/ClientTest.java: Add licence information.
- scripts/java/jNut/README, scripts/java/jNut/pom.xml, .../java/org/networkupstools/jnut/Scanner.java, .../java/org/networkupstools/ Add nut-scanner.

**2.2205 2011-10-24 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- docs/man/nut-scanner.txt, tools/nut-scanner/nut-scanner.c: Forgot to document "-q" option (thanks to Emilien Kia for reporting this)

**2.2206 2011-10-21 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- tools/nut-scanner/nut-scanner.c: Trivial layout consistency
- docs/man/nut-scanner.txt: Update man page with -V and -a option
- tools/nut-scanner/nut-scanner.c: Add an option to display available bus (usefull for wrapper).
- tools/nut-scanner/nut-scanner.c: return -1 on bad command line option

**2.2207 2011-10-19 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- tools/nut-scanner/nutscan-ip.c: Fix crash on 32bits systems
- tools/nut-scanner/nut-scanner.c: Add a switch to display NUT version.

**2.2208 2011-10-19 Charles Lepple <clepple+nut@gmail.com>**

- docs/FAQ.txt: Add FAQ entry for LISTEN directive

**2.2209 2011-10-18 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/eaton-mib.c: Fix outlets reported current, ... which were off by 100 in aphel\_genesisII MIB, and bump MIB version to 0.46 (patch from Sven Nilsson)
-



**2.2210 2011-10-14 Charles Lepple <clepple+nut@gmail.com>**

- include/Makefile.am: nut\_version.h: grab Git revision, if any

**2.2211 2011-10-14 Arnaud Quette <arnaud.quette@free.fr>**

- docs/Makefile.am, docs/images/nut-logo.png, docs/images/nut.svg, docs/website/Makefile.am, docs/website/css/web-layout.css, docs/website/faviconut.ico, docs/website/faviconut.png, docs/website/web-layout.conf: Add the new NUT logo (contributed by Luc Descotils, from Eaton)
- docs/website/web-layout.conf: Fix another W3C validator error (there is no attribute "language" anymore for <script> in XHTML 1.1)
- data/driver.list.in: Remove redundant entry, that probably causes a W3C validator error (end tag for "tr" which is not finished)
- tools/Makefile.am: Only generate static and JSON HCL if we can import json, ... simplejson and lxml Python modules
- docs/Makefile.am: Remove the user manual dependency on static HCL, which broke Buildbot
- configure.in, docs/Makefile.am, docs/download.txt, docs/website/Makefile.am: Automate generation of the version release information, in the Download section. This is a rewritten version of [SVN:3272], this time using AsciiDoc mechanism instead of Autoconf
- Makefile.am, docs/Makefile.am, tools/Makefile.am, tools/nut-hclinfo.py: Add static HCL as a user manual dependency, along with the needed build rules

**2.2212 2011-10-13 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- docs/man/nut-scanner.txt: Add examples to nut-scanner man page

**2.2213 2011-10-13 Charles Lepple <clepple+nut@gmail.com>**

- docs/man/nut-scanner.txt: nut-scanner.txt: spelling and style edits

**2.2214 2011-10-13 Arnaud Quette <arnaud.quette@free.fr>**

- docs/configure.txt: Add missing --with-avahi documentation
- docs/Makefile.am, docs/developer-guide.txt, tools/nut-scanner/.gitignore, tools/nut-scanner/README, tools/nut-scanner/nut-scan.h: Add a *NUT device discovery* chapter to the developer guide, ... to document libnutscan
- configure.in: Enable Avahi automatic support, upon detection
- docs/man/.gitignore, docs/man/Makefile.am, docs/man/index.txt, docs/man/nutscan.txt: Add an overview manpage for libnutscan
- configure.in, docs/Makefile.am, docs/{download.txt.in ⇒ download.txt}: Revert [SVN:3272], which breaks distribution check, ... while waiting for a suitable solution

**2.2215 2011-10-12 Arnaud Quette <arnaud.quette@free.fr>**

- docs/.gitignore: Mark download.txt as ignored, ... since it is now generated automatically (no functional changes)

**2.2216 2011-10-11 Arnaud Quette <arnaud.quette@free.fr>**

- configure.in, docs/Makefile.am, docs/{download.txt ⇒ download.txt.in}: Automate generation of the stable release information, in the Download section
-

**2.2217 2011-10-10 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- docs/man/nut-scanner.txt, tools/nut-scanner/nut-scanner.c: Add CIDR option manual

**2.2218 2011-10-10 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- drivers/nut-libfreeipmi.c, tools/nut-scanner/scan\_avahi.c: Replace <time.h> inclusion by "timehead.h", as per NUT coding standard (Reported by Prachi Gandhi, from Eaton)
- scripts/upower/95-upower-hid.rules: Update upower script with Powercom entry
- docs/website/projects.txt: Advertise more the official Windows port, with regard to WinNUT
- Makefile.am: Force ChangeLog regeneration upon make dist, ... .. in case it has already been generated previously

**2.2219 2011-10-06 Charles Lepple <[clepple+nut@gmail.com](mailto:clepple+nut@gmail.com)>**

- docs/support.txt: Reduce recommended debug level from 5 to 2 in Support page.

**2.2220 2011-10-05 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- data/driver.list.in, drivers/powercom-hid.c: Add Powercom BNT-xxxAP (productID 0004)... ..to the list of usbhid-ups supported models (reported by Virus, on Ubuntu Launchpad)

**2.2221 2011-09-30 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- data/driver.list.in: Add Belkin F6S600auUSB to the list of blazer\_usb supported models (reported by Simon Dwyer)

**2.2222 2011-09-26 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- tools/nut-scanner/nutscan-ip.c: Remove AI\_NUMERICSERV... ..since it's useless and produces compile error on some systems.
- tools/nut-scanner/nutscan-ip.h: Try to fix FreeBSD build

**2.2223 2011-09-26 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- conf/upsd.conf.sample: Complete LISTEN information, with regard to IP v4 or v6 disabled kernel (reported by Pavel Zubkou, Debian bug [#598741](#))
- clients/Makefile.am: Fix forgotten update of libupsclient version information (bump from 1:0:0 to 2:0:1)
- docs/man/bcmxcp.txt, docs/man/blazer.txt, docs/man/dummy-ups.txt: Fix spelling and typo errors (patch from Laurent Bigonville, Debian)
- tools/nut-scanner/scan\_xml\_http.c: Fix remaining compilation errors on FreeBSD, ... ..due to missing <netinet/in.h> header inclusion

**2.2224 2011-09-23 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- tools/nut-scanner/nutscan-ip.c, tools/nut-scanner/nutscan-ip.h, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http.c: Replace calls to inet\_\* functions by equivalent getaddrinfo and getnameinfo... ..for portability

**2.2225 2011-09-23 Arnaud Quette <arnaud.quette@free.fr>**

- docs/config-notes.txt: Add a note on nut-scanner availability
- docs/.gitignore: Mark some forgotten generated HTML files as ignored files (no functional changes)
- docs/Makefile.am, docs/developer-guide.txt, docs/new-clients.txt, lib/README: Complete lib/README and convert it to Asciidoc, ... .. as *Appendix B: NUT libraries complementary information*
- configure.in, docs/macros.txt, docs/man/Makefile.am, docs/website/Makefile.am, drivers/Makefile.am, m4/nut\_check\_libfreeipmi.m4, m4/nut\_check\_libwrap.m4, m4/nut\_report\_feature.m4, tools/nut-scanner/Makefile.am, tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_avahi.c, tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_usb.c: Rework the whole HAVE\_<FEATURE> versus WITH\_<FEATURE> logic, ... .. which is not suitable anymore since nut-scanner. Previously, we only defined an automake variable (AM\_CONDITIONAL) that allowed to compile coherent set of features (a specific driver, for example). With nut-scanner, we also need a pre-processor macro (AC\_DEFINE) to manage code activation inside of a feature. The NUT\_REPORT\_FEATURE macro has been modified to handle all this logic

**2.2226 2011-09-22 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- tools/nut-scanner/nut-scanner.c: Move a pthread variable to a #ifdef HAVE\_PTHREAD section.

**2.2227 2011-09-20 Arnaud Quette <arnaud.quette@free.fr>**

- server/Makefile.am, server/netcmds.h, server/netget.c, server/netget.h, server/netinstcmd.c, server/netinstcmd.h, server/netlist.c, server/netlist.h, server/netmisc.c, server/netmisc.h, server/netset.c, server/netset.h, server/netuser.c, server/netuser.h, server/{ctype.h ⇒ nut\_ctype.h}, server/ssl.c, server/ssl.h, server/upsd.c, server/upsd.h: Rename upsd internal client structure and header from ctype\_t to nut\_ctype\_t. This avoids namespace conflict on AIX, and is more suitable in general

**2.2228 2011-09-18 Arnaud Quette <arnaud.quette@free.fr>**

- docs/man/nutupsdrv.txt: Add the missing -q option (closes Alioth patch #301145)
- tools/nut-scanner/Makefile.am: Distribute the needed headers for libnutscan
- configure.in, lib/.gitignore, lib/Makefile.am, lib/libnutscan.pc.in: Add pkg-config support for libnutscan
- common/Makefile.am: Remove extraneous space

**2.2229 2011-09-17 Arnaud Quette <arnaud.quette@free.fr>**

- docs/developer-guide.txt, docs/man/dummy-ups.txt: Complete device simulation and recording information
- docs/man/index.txt: Add nut-scanner and libnutscan entries to the manual pages index
- docs/man/.gitignore: Mark some more generated HTML files as ignored files (no functional changes)

**2.2230 2011-09-15 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- tools/nut-scanner/scan\_nut.c: Conditional inclusion of pthread.h
  - tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-display.c, tools/nut-scanner/scan\_avahi.c, tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_usb.c, tools/nut-scanner/scan\_xml\_http.c: config.h is included in common.h, so only include common.h
  - include/parseconf.h: We need stdio.h because we use FILE type.
-

**2.2231 2011-09-15 Arnaud Quette <arnaud.quette@free.fr>**

- docs/download.txt: Add the missing SHA-256 sum on the Download page / section (need to be generated after the distribution package)
- drivers/nut-ipmipsu.c, drivers/nut-libfreeipmi.c: Don't override PSU absence with the power failure flag
- NEWS, UPGRADING, configure.in, docs/download.txt, docs/website/news.txt: Final update for 2.6.2 release
- docs/configure.txt: Complete the minimum FreeIPMI version required
- tools/nut-scanner/.gitignore: Mark remaining generated files as ignored files (no functional changes)
- docs/man/.gitignore: Mark remaining generated manual pages as ignored files (no functional changes)
- docs/man/nut-ipmipsu.txt, drivers/nut-ipmi.h, drivers/nut-ipmipsu.c, drivers/nut-libfreeipmi.c, m4/nut\_check\_libfreeipmi.m4: Complete nut-ipmipsu, by adding sensors discovery and monitoring

**2.2232 2011-09-14 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- tools/nut-scanner/scan\_snmp.c: Remove use of strndup. This is not supported on Solaris.
- tools/nut-scanner/nutscan-ip.c: Get rid of s6\_addr32 in IPv6 code since it is implementation specific. Replaced by s6\_addr. (thanks to Charles Lepple)

**2.2233 2011-09-14 Emilien Kia <kiae.dev@gmail.com>**

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scripts/java/jNut/src/main/java/org/networkupstools/jnut/Client.java,  
scripts/java/jNut/src/main/java/org/networkupstools/jnut/Command.java,  
scripts/java/jNut/src/main/java/org/networkupstools/jnut/Device.java,  
.../java/jNut/src/main/java/org/networkupstools/jnut/NutException.java,  
.../jNut/src/main/java/org/networkupstools/jnut/StringLineSocket.java,  
scripts/java/jNut/src/main/java/org/networkupstools/jnut/Variable.java:  
Fix mail address typo for javadoc.
```

**2.2234 2011-09-14 Charles Lepple <clepple+nut@gmail.com>**

- tools/nut-scanner/scan\_snmp.c: Remove unbalanced #endif
- tools/nut-scanner/scan\_snmp.c: nut-scanner: use "common.h", which includes "config.h"
- tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_usb.c: Include <string.h> for nut-scanner
- tools/nut-scanner/scan\_snmp.c: Silence redefined PACKAGE\_ macro warnings This should be fixed properly upstream, but in the mean time, the SNMP-based tools can't use these macros properly (since they will have the values for Net-SNMP, not NUT).

**2.2235 2011-09-14 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/.gitignore: Mark apcsmart-old binary as ignored file (no functional changes)

**2.2236 2011-09-13 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- tools/nut-scanner/Makefile.am: Fix make distcheck-light
  - tools/nut-scanner/nutscan-ip.c: Do not use long long variable anymore
  - tools/nut-scanner/scan\_avahi.c, tools/nut-scanner/scan\_nut.c: Remove all calls to asprintf
-

**2.2237 2011-09-13 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/bcmxcp.c: Fix compilation warning on values comparison being always false
- configure.in, tools/nut-scanner/nut-scanner.c: Complete commit [SVN:3218], to address getopt\_long too
- configure.in: Do a second check to ensure inclusion of getopt.h, in case optind is known
- drivers/bcmxcp.c, drivers/bcmxcp.h, drivers/bcmxcp\_ser.c: Add support for outlet.n.delay.{start,shutdown}, ... ..and use outlet.n.delay.shutdown for outlet.n.shutdown.return instead of the default 3 seconds (patch from Rich Wrenn)

**2.2238 2011-09-12 Michal Soltys <msoltyspl-guest@alioth.debian.org>**

- drivers/Makefile.am: apcsmart: minor Makefile.am change Add missing apcsmart\_tabs.h
- drivers/apcsmart.c: apcsmart: limit comm-lost spam In upsdrv\_updateinfo(), additional comm-lost messages were logged, potentially causing unnecessary spam in logs. As ser\_comm\_fail() and ser\_comm\_good() functions do so themselves (including rate limiting), we changed the superfluous info to debug level and also switched to upsdebugx().
- drivers/apcsmart.h: apcsmart: add \+ to APC\_UNR\_CMDS Only - is used, and only internally by the driver - no need to inform in logs about unrecognized command.
- docs/man/apcsmart.txt: apcsmart: minor updates to apcsmart man page

**2.2239 2011-09-12 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- docs/FAQ.txt, docs/config-notes.txt, docs/download.txt, docs/man/Makefile.am, docs/man/apcsmart-old.txt, docs/man/apcsmart.txt, docs/stable-hcl.txt, docs/website/web-layout.conf, drivers/Makefile.am, drivers/apcsmart-old.c, drivers/apcsmart-old.h, drivers/apcsmart.c, drivers/apcsmart.h, drivers/apcsmart\_tabs.c, drivers/apcsmart\_tabs.h, drivers/eaton-mib.c, drivers/eaton-mib.h, drivers/snmp-ups.c: Merge with trunk from [SVN:3196]
- docs/man/Makefile.am, docs/man/nut-scanner.txt, docs/man/nutscan\_add\_device\_to\_device.txt, docs/man/nutscan\_add\_option\_to\_device.txt, docs/man/nutscan\_cidr\_to\_ip.txt, docs/man/nutscan\_display\_parsable.txt, docs/man/nutscan\_display\_ups\_conf.txt, docs/man/nutscan\_new\_device.txt, docs/man/nutscan\_scan\_avahi.txt, docs/man/nutscan\_scan\_ipmi.txt, docs/man/nutscan\_scan\_nut.txt, docs/man/nutscan\_scan\_snmp.txt, docs/man/nutscan\_scan\_usb.txt, docs/man/nutscan\_scan\_xml\_http.txt: Add man pages

**2.2240 2011-09-12 Charles Lepple <clepple+nut@gmail.com>**

- docs/FAQ.txt: Reword rewording in FAQ

**2.2241 2011-09-09 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- tools/nut-scanner/scan\_snmp.c, tools/nut-snmppinfo.py: Use the SysOID registered in drivers's sources... ..to detect the favorite MIB for SNMP devices. Fall back to old method if no matching SysOID is found.

**2.2242 2011-09-09 Arnaud Quette <arnaud.quette@free.fr>**

- docs/FAQ.txt: Fix wording, that is not appropriate anymore
  - docs/config-notes.txt: Complete shutdown information on the "critical UPS" notion
  - docs/download.txt: Add missing comma for OpenWrt
  - docs/stable-hcl.txt: Complete information for reporting new device
  - drivers/eaton-mib.c, drivers/eaton-mib.h, drivers/snmp-ups.c: Add a missing Eaton MIB for PDU
-

**2.2243 2011-09-08 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_avahi.c: Add a timeout to scan-avahi function

**2.2244 2011-09-08 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- docs/download.txt: Forgotten commit for the new updated Windows package
- docs/website/web-layout.conf: Fix XHTML 1.1 compliance (reported by W3C validators)
- .gitignore, configure.in, m4/nut\_check\_os.m4, scripts/Makefile.am, scripts/README, scripts/systemd/.gitignore, scripts/systemd/Makefile.am, scripts/systemd/README, scripts/systemd/nut-driver.service.in, scripts/systemd/nut-monitor.service.in, scripts/systemd/server.service.in, scripts/systemd/nutshutdown.in: Add initial support for systemd (patch from Michal Hlavinka)

**2.2245 2011-09-06 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- configure.in, docs/download.txt, docs/new-clients.txt, docs/website/news.txt, docs/website/projects.txt, drivers/apc-mib.c, drivers/bestpower-mib.c, drivers/eaton-mib.c, drivers/ietf-mib.c, drivers/mge-hid.c, drivers/mge-mib.c, drivers/netvision-mib.c, drivers/powerware-mib.c, drivers/raritan-pdu-mib.c, drivers/snmp-ups.c, drivers/snmp-ups.h, scripts/Makefile.am, scripts/README, scripts/java/Makefile.am, scripts/java/README, scripts/java/jNut/README, scripts/java/jNut/pom.xml, .../main/java/org/networkupstools/jnut/.../java/org/networkupstools/jnut/Command.java, .../main/java/org/networkupstools/jnut/Device.java, .../org/networkupstools/jnut/.../org/networkupstools/jnut/StringLineSocket.java, .../java/org/networkupstools/jnut/Variable.java, .../java/org/networkupstools/jnut/scripts/java/jNutList/README, scripts/java/jNutList/pom.xml, .../java/org/networkupstools/jnutlist/AppList.java: Merge from trunk [SVN:3177]

**2.2246 2011-09-06 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- drivers/apc-mib.c, drivers/bestpower-mib.c, drivers/eaton-mib.c, drivers/ietf-mib.c, drivers/mge-mib.c, drivers/netvision-mib.c, drivers/powerware-mib.c, drivers/raritan-pdu-mib.c, drivers/snmp-ups.c, drivers/snmp-ups.h: Add a new initialization method, that uses sysObjectID (indirection to the main MIB of the device) to detect supported devices. This speeds up even more init stage and should render void the use of *mib* option
- drivers/snmp-ups.c: Force numeric OIDs resolution, ie do not resolve to textual names. This is mostly for the convenience of debug output

**2.2247 2011-09-05 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- tools/nut-scanner/scan\_ipmi.c: typo
  - tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_xml\_http.c: More conditional compilation fixes
  - tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_ipmi.c: use HAVE\_FREEIPMI\_FREEIPMI\_H instead of non existing WITH\_IPMI
  - tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_ipmi.c: Prepare IPMI integration. Fix conditional compilation
  - tools/nut-scanner/scan\_snmp.c: Fix no thread compilation
  - tools/nut-scanner/nut-scanner.c: Raise default timeout from 1s to 5s. Use parallel scanning.
-

**2.2248 2011-09-05 Arnaud Quette <arnaud.quette@free.fr>**

- scripts/java/Makefile.am, .../java/org/networkupstools/jnuttest/AppTest.java: Remove test code, since it is bound to jNut and not jNutList (reported by Emilien Kia)
- drivers/mge-hid.c: Add support for battery.runtime.low, and end of battery life (life cycle monitoring) ; along with measurements (outlet power factor, power, real power and current) for 5 PX
- configure.in, scripts/Makefile.am, scripts/java/.gitignore, scripts/java/Makefile.am: Complete jNut automake integration (distribution rules)

**2.2249 2011-09-03 Arnaud Quette <arnaud.quette@free.fr>**

- docs/man/.gitignore: Mark nut-ipmipsu.html as ignored file (no functional changes)

**2.2250 2011-09-02 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- tools/nut-scanner/scan\_snmp.c: Make sure SNMP strings are NULL terminated
- configure.in: Forgot to resolve a conflict with previous merge
- MAINTAINERS, NEWS, UPGRADING, clients/upssched.c, common/common.c, data/cmdvartab, data/driver.list.in, docs/FAQ.txt, docs/acknowledgements.txt, docs/configure.txt, docs/download.txt, docs/features.txt, docs/images/advanced.png, docs/images/bigbox.png, docs/images/bizarre.png, docs/images/simple.png, docs/man/Makefile.am, docs/man/blazer.txt, docs/man/nut-ipmipsu.txt, docs/man/powercom.txt, docs/nut-names.txt, docs/stable-hcl.txt, docs/website/Makefile.am, docs/website/news.txt, docs/website/projects.txt, docs/website/web-layout.conf, drivers/Makefile.am, drivers/apcsmart.c, drivers/apcsmart.h, drivers/bcmxcp.c, drivers/bcmxcp\_ser.c, drivers/bcmxcp\_usb.c, drivers/bestfcom.c, drivers/blazer.c, drivers/blazer\_usb.c, drivers/cps-hid.c, drivers/dstate.c, drivers/libhid.c, drivers/liebert-esp2.c, drivers/liebert-hid.c, drivers/main.c, drivers/mge-hid.c, drivers/mge-utalk.c, drivers/microdowell.c, drivers/nut-ipmi.h, drivers/nut-ipmipsu.c, drivers/nut-libfreeipmi.c, drivers/powercom.c, drivers/powercom.h, drivers/rhino.c, drivers/snmp-ups.c, drivers/solis.c, drivers/usb-common.c, drivers/usb-common.h, include/Makefile.am, lib/libupsclient-config.in, lib/libupsclient.pc.in, m4/ax\_create\_stdint\_h.m4, m4/nut\_check\_libfreeipmi.m4, m4/nut\_repo.m4, scripts/Makefile.am, scripts/augeas/README, scripts/avahi/nut.service.in, scripts/udev/Makefile.am, scripts/udev/README, scripts/udev/nut-ipmipsu.rules.in, scripts/upower/95-upower-hid.rules, server/netinstcmd.c, server/netlist.c, server/upsd.c, tools/git-svn.authors, tools/nut-usbinfo.pl, tools/svn2cl.authors: Merge from rev [SVN:2911]

**2.2251 2011-09-02 Emilien Kia <kiae.dev@gmail.com>**

- scripts/java/README, scripts/java/jNut/README, scripts/java/jNut/pom.xml, .../main/java/org/networkupstools/jnut/Client.java, .../java/org/networkupstools/jnut/Command.java, .../main/java/org/networkupstools/jnut/Device.java, .../org/networkupstools/jnut/DeviceList.java, .../org/networkupstools/jnut/StringLineSocket.java, .../java/org/networkupstools/jnut/Variable.java, .../java/org/networkupstools/jnut/VariableList.java, scripts/java/jNutList/README, scripts/java/jNutList/pom.xml, .../java/org/networkupstools/jnutlist/AppList.java, .../java/org/networkupstools/jnutlist/Client.java, .../java/org/networkupstools/jnutlist/Device.java, .../java/org/networkupstools/jnutlist/DeviceList.java, .../java/org/networkupstools/jnutlist/StringLineSocket.java, .../java/org/networkupstools/jnutlist/Variable.java, .../java/org/networkupstools/jnutlist/VariableList.java: Add jNut (NUT client in Java) to trunk.

**2.2252 2011-09-02 Arnaud Quette <arnaud.quette@free.fr>**

- docs/new-clients.txt: Fix jNut AsciiDoc integration
- docs/download.txt, docs/new-clients.txt, docs/website/news.txt, scripts/README, scripts/java/README, scripts/java/jNut/README, scripts/java/jNutList/README: Integrate jNUT information in the developer guide, ... along with news and download section
- docs/website/news.txt: Add the Beta NUT 2.6.1-1 package for Windows, and some news history (just intended for VCS history)
- docs/website/projects.txt: Formatting fixes
- drivers/main.c: Remove extraneous empty line



**2.2253 2011-08-31 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_snmp.c: More API cleaning
- tools/nut-scanner/nut-scan.h, tools/nut-scanner/nutscan-ip.c, tools/nut-scanner/nutscan-ip.h, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c: Consolidating API
- configure.in, m4/nut\_check\_libavahi.m4, tools/nut-scanner/Makefile.am, tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_avahi.c: Add avahi scanning
- tools/nut-scanner/scan\_nut.c: Make scan\_nut reentrant

**2.2254 2011-08-31 Emilien Kia <[kiae.dev@gmail.com](mailto:kiae.dev@gmail.com)>**

- drivers/usb-common.c: Fix pointer check on wrong variable (Patch from Thomas Jarosch)
- drivers/mge-utalk.c: Fix use of uninitialized variable (Patch from Thomas Jarosch)
- common/common.c: Fix file descriptor leak (Patch from Thomas Jarosch)

**2.2255 2011-08-30 Michal Soltys <[msoltyspl-guest@alioth.debian.org](mailto:msoltyspl-guest@alioth.debian.org)>**

- drivers/apcsmart.c: apcsmart: revert back from custom serial functions to serial.c ones Following Arjen's suggestion, this patch reverts the apcsmart back to relying on serial.c functions for opening/closing and setting speed. For the reference: <http://lists.alioth.debian.org/pipermail/nut-upsdev/2011-June/005491.html> If it turns out that re-opening serial ports during normal driver activity is really necessary, it can be easily added to serial.c.
- drivers/apcsmart.c: Fix alignment of preprocessor directives

**2.2256 2011-08-29 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- tools/nut-scanner/nutscan-display.c: Make sure device names are unique for "nut.conf style" display
- tools/nut-scanner/nut-scanner.c: Add a "quiet" option

**2.2257 2011-08-29 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- drivers/mge-hid.c: Add region/country management, ... ..to improve features provided such as *output.voltage.nominal* and 3S Eco control
- data/driver.list.in, drivers/mge-hid.c: Add Eaton 3S to the list of usbhid-ups supported models

**2.2258 2011-08-25 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- docs/nut-names.txt: Fix duplication

**2.2259 2011-08-24 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-device.h, tools/nut-scanner/nutscan-display.c: Add parsable output

**2.2260 2011-08-20 Charles Lepple <[clepple+nut@gmail.com](mailto:clepple+nut@gmail.com)>**

- m4/nut\_report\_feature.m4: Avoid implementation-specific use of "echo" in autoconf <http://pubs.opengroup.org/onlinepubs/009695399/utilities/echo.html>

**2.2261 2011-08-18 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- tools/nut-scanner/scan\_xml\_http.c: Remove useless "" for desc

**2.2262 2011-08-16 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- tools/nut-scanner/.gitignore, tools/nut-scanner/Makefile.am, tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/{device.c ⇒ nutscan-device.c}, tools/nut-scanner/{device.h ⇒ nutscan-device.h}, tools/nut-scanner/{display.c ⇒ nutscan-display.c}, tools/nut-scanner/{ip.c ⇒ nutscan-ip.c}, tools/nut-scanner/{ip.h ⇒ nutscan-ip.h}, tools/nut-scanner/scan\_avahi.c, tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c, tools/nut-scanner/scan\_usb.c, tools/nut-scanner/scan\_xml\_http.c: More consistent API naming

**2.2263 2011-08-11 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- clients/upsmon.c: Correct handling of timeout

**2.2264 2011-08-08 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- scripts/Windows/DriverInstaller/wdi-simple.c: Print an error message when driver's installation has failed.
- scripts/Windows/DriverInstaller/README.txt: Add some more hints on how to compile wdi-simple.exe
- drivers/serial.c: This seems to be the correct way to set and reset DTR and RTS with Win32 API
- scripts/Windows/Installer/NUT-Installer.xml: The stock msys-regex-1.dll is crashing. So now we bundle libregex-1.dll which is a binary compiled from sources

**2.2265 2011-08-05 Charles Lepple <[clepple+nut@gmail.com](mailto:clepple+nut@gmail.com)>**

- configure.in: minor changes to output \* Capitalized "UPS" \* --with-drivers= : Only **build** specific drivers

**2.2266 2011-07-30 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- data/driver.list.in: Add Cyber Power Systems CP1000AVRLCD to the list of usbhid-ups supported models (reported by David C. Rankin)

**2.2267 2011-07-28 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- tools/nut-usbinfo.pl: Proper fix to [SVN:3012], which satisfies both udev and upower

**2.2268 2011-07-27 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- tools/nut-usbinfo.pl: Partially revert [SVN:3012]. It caused a udev regression, with several missing USB IDs (thanks to Pawel Sikora for uncovering it)
  - scripts/augeas/README: Add a complete Python Augeas example code
-

**2.2269 2011-07-26 Arnaud Quette <arnaud.quette@free.fr>**

- configure.in, docs/man/nut-ipmipsu.txt, scripts/udev/.gitignore, scripts/udev/Makefile.am, scripts/udev/README, scripts/udev/nut-ipmipsu.rules.in: Add udev rules file and documentation for nut-ipmipsu
- m4/nut\_check\_libfreeipmi.m4: Improve detection of the needed functions
- data/driver.list.in: Add Orvaldi 750 / 900SP to the list of blazer\_usb supported models (reported by Pawel Sikora)
- drivers/nut-ipmipsu.c: Fix missing comment closure, add a TODO list and remove unused variables

**2.2270 2011-07-21 Charles Lepple <clepple+nut@gmail.com>**

- tools/git-svn.authors: Added authors file for git-svn synchronization

**2.2271 2011-07-19 Arnaud Quette <arnaud.quette@free.fr>**

- data/driver.list.in: Add POWEREX VI 1000 LED to the list of blazer\_usb supported models (reported by Sergey Talchuk)

**2.2272 2011-07-17 Arnaud Quette <arnaud.quette@free.fr>**

- data/driver.list.in: Add SVEN Power Pro\+ series (USB ID ffff:0000)... to the list of blazer\_usb supported models (reported by Vlad)

**2.2273 2011-07-16 Arnaud Quette <arnaud.quette@free.fr>**

- configure.in: Fix --with-[free]ipmi configure option... so that it actually behave correctly in automatic detection mode

**2.2274 2011-07-14 Arnaud Quette <arnaud.quette@free.fr>**

- configure.in: Fix the typo that made its way into commit [SVN:3136], and broke configure
- configure.in, docs/configure.txt, docs/man/.gitignore, docs/man/Makefile.am, docs/man/nut-ipmipsu.txt, drivers/.gitignore, drivers/Makefile.am, drivers/nut-ipmi.h, drivers/nut-ipmipsu.c, drivers/nut-libfreeipmi.c, m4/nut\_check\_libfreeipmi.m4: First attempt to create a driver to monitor power supply units using IPMI. This preliminary version only reads FRU (Field Replace Unit) information, but not yet the sensor information (describing if the PSU is present and online), and includes base documentation (manpage and configure options). It currently supports GNU FreeIPMI, but uses an abstract IPMI implementation that will allow to use other IPMI toolkits

**2.2275 2011-07-13 Arnaud Quette <arnaud.quette@free.fr>**

- docs/configure.txt: Move several misplaced options to the right sections
- tools/Makefile.am: Finally fix both distribution and compilation rules, ... completing commit [SVN:3121]
- tools/nut-scanner/Makefile.am: Force building automatically generated files before any target
- drivers/bestfcom.c: Remove unused variables (patch from Regid Ichira, Debian bug #633756)

**2.2276 2011-07-12 Arnaud Quette <arnaud.quette@free.fr>**

- MAINTAINERS: Update the corporate mail address and some details
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**2.2277 2011-07-08 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- tools/nut-scanner/ip.c, tools/nut-scanner/ip.h, tools/nut-scanner/nut-scanner.c: Add an helper function to decode CIDR notation.

**2.2278 2011-07-08 Charles Lepple <[clepple+nut@gmail.com](mailto:clepple+nut@gmail.com)>**

- docs/acknowledgements.txt: Fix typo in link on Acknowledgements page

**2.2279 2011-07-07 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- tools/nut-scanner/scan\_snmp.c: Make sure the description string ends with a 0

**2.2280 2011-07-07 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- docs/acknowledgements.txt: Move Arjen de Korte, NUT Senior lieutenant, to the Retired members section. Thanks for all his years of dedication to make NUT better

**2.2281 2011-07-06 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- tools/nut-scanner/nut-scanner.c: help and CLI modified depending on what is available at compile time
- tools/nut-scanner/scan\_nut.c: Remove redundant quote in scan\_nut
- configure.in, tools/nut-scanner/Makefile.am, tools/nut-scanner/nut-scanner.c: Conditional compilation of neon related code (thanks to Arnaud Quette)
- tools/nut-scanner/nut-scanner.c: Add switches to select the desired buses
- tools/nut-scanner/display.c, tools/nut-scanner/scan\_snmp.c: Display everything as: varname<space>=<space>"value"

**2.2282 2011-07-05 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- tools/Makefile.am, tools/nut-scanner/Makefile.am: Fix distribution and compilation rules, ... ..to suit general needs and nut-scanner specific requirements

**2.2283 2011-07-04 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- scripts/Windows/Installer/BuildInstaller.bat, scripts/Windows/Installer/NUT-Installer.xml: Change from libgnurx-0.dll to msys-regex-1.dll for the sake of coherency (use only msys DLLs)
- scripts/Windows/DriverInstaller/wdi-simple.c: Add a notification to unplug and re-plug the device... ..so that Windows uses the newly installed driver.
- tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_nut.c: Add timeout to scan\_nut
- tools/nut-scanner/scan\_snmp.c: Remove unused variable
- clients/upsclient.c, clients/upsclient.h: Add upscli\_tryconnect function which is upscli\_connect function... ..with the control of the connect timeout.

**2.2284 2011-07-01 Arjen de Korte <[adkorte-guest@alioth.debian.org](mailto:adkorte-guest@alioth.debian.org)>**

- MAINTAINERS: It's been fun, but I feel the time has come to say farewell. All the best. . .
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**2.2285 2011-06-30 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- common/common.c: Add the error message associated with GetLastError to the error string. This may be helpful for support.
- common/wincompat.c: Make sure serial functions set errno to an actual error code (which might not be the most relevant one, but it's better than nothing)
- drivers/libusb0.c: Make sure errno is set to an actual error code (thanks to David Bolen)
- drivers/usbhid-ups.c: Revert [SVN:3108]. Correct errno management should be enough
- clients/upsmon.c: Change timeout from seconds to milliseconds (from David Bolen)

**2.2286 2011-06-29 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- drivers/usb-common.h, drivers/usbhid-ups.c: Add WIN32 specific error case for detecting disconnection
- drivers/dstate.c: Fix timeout being in seconds instead of milliseconds

**2.2287 2011-06-29 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- configure.in, scripts/Makefile.am, scripts/avahi/.gitignore, scripts/avahi/nut.service.in: Add Avahi support for NUT mDNS publication, using a static service file
- tools/svn2cl.authors: Add missing committers, and reorder using the Project Member List: [https://alioth.debian.org/project/-memberlist.php?group\\_id=30602](https://alioth.debian.org/project/-memberlist.php?group_id=30602)

**2.2288 2011-06-28 Michal Soltys <[msoltyspl-guest@alioth.debian.org](mailto:msoltyspl-guest@alioth.debian.org)>**

- drivers/apcsmart.c, drivers/apcsmart.h: apcsmart: remove SER\_D6, as it's implied by SER\_{CS,CC} flags. . . . and has no use otherwise
  - drivers/apcsmart.c, drivers/apcsmart.h, drivers/apcsmart\_tabs.c: apcsmart: fix conditions in instcmd(); use regex for format validation
  - drivers/apcsmart.c, drivers/apcsmart.h: apcsmart: fix apc\_write\_rep() and apc\_write\_long() behaviour - . . . we can't assume that the command will succeed and keep sending the rest of the sequence
  - drivers/apcsmart.c: apcsmart: comments, code shuffling
  - drivers/apcsmart.c: apcsmart: minor changes
  - drivers/apcsmart.c: apcsmart: \*qco fix
  - drivers/apcsmart.c: apcsmart: follow dev guide more closely
  - drivers/apcsmart.c: apcsmart: add parameter to smartmode()
  - docs/man/apcsmart.txt: apcsmart: manpage update
  - drivers/apcsmart.c: apcsmart: apc\_read() adjustment
  - drivers/apcsmart.c: apcsmart: use slightly adjusted older smartmode() version
  - drivers/apcsmart.c: apcsmart: apc\_flush() fix
  - drivers/apcsmart.c: apcsmart: remove some of the old commented out sections
  - drivers/apcsmart.c, drivers/apcsmart.h, drivers/apcsmart\_tabs.c: apcsmart: trivial changes
  - drivers/apcsmart.c: apcsmart: add a few apc\_flush() calls
-

- drivers/apcsmart.c: apcsmart: sanitize sdtype (and other vars) in upsdrv\_initups()
  - drivers/apcsmart.c: apcsmart: update oldapcsetup()
  - drivers/apcsmart.c: apcsmart: allow \Z to timeout
  - drivers/apcsmart.c, drivers/apcsmart.h: apcsmart: update detection code, add command set regex
  - drivers/apcsmart.c: apcsmart: sdcmd\_AT() fix
  - drivers/apcsmart.c: apcsmart: add regex matching of variable result to verify, ... ..if it actually makes sense
  - drivers/apcsmart.c, drivers/apcsmart.h: apcsmart: add typical buffer length defines
  - drivers/apcsmart.c, drivers/apcsmart.h: apcsmart: change how SER\_\* flags are handled
  - drivers/apcsmart.c: apcsmart: trivial changes
  - drivers/apcsmart.c: apcsmart: rename wugrace → awd
  - drivers/apcsmart.c: apcsmart: bugfixes
  - drivers/apcsmart.c, drivers/apcsmart\_tabs.c, drivers/apcsmart\_tabs.h: apcsmart: updates to instand commands (inc. shutdown commands), ... ..enabled handling of ext paramater for subcommands
  - drivers/apcsmart.c: apcsmart: apc\_ser\_tear() fixup
  - drivers/apcsmart.c: apcsmart: small sdcmd\_Z() fix
  - drivers/Makefile.am, drivers/apcsmart.c, drivers/apcsmart.h, drivers/apcsmart\_tabs.c, drivers/apcsmart\_tabs.h: apcsmart: cleanups, split into two files
  - drivers/apcsmart.c: apcsmart: next changes to instcmd stuff
  - drivers/apcsmart.c: apcsmart: simplify query\_ups()
  - drivers/apcsmart.c: apcsmart: add apc\_write\_rep() and apc\_write\_long(), ... ..initial changes to instcmd stuff
  - drivers/apcsmart.c: apcsmart: allow tearing down/setting up serial connection. ... ..during normal activity; changes should fix #535583 as well
  - drivers/apcsmart.c, drivers/apcsmart.h: apcsmart: trivial changes
  - drivers/apcsmart.c, drivers/apcsmart.h: apcsmart: enable icanon
  - drivers/apcsmart.c, drivers/apcsmart.h: apcsmart: handle 1:n vars (nut:apc) variables, ... ..so we don't need tricks such as ups.firmware.old
  - drivers/apcsmart.c, drivers/apcsmart.h: apcsmart: reintroduce ignored set in protocol\_verify() ... ..for not exposed cmds/vars (⇒ a bit more quiet logs)
  - drivers/apcsmart.c, drivers/apcsmart.h: apcsmart: introduce icanon upsread() and upsflush() (functions will be used after icanon commit)
  - drivers/apcsmart.h: apcsmart: add quick reference about alerts and to-be-removed defines. Introduce SER\_\* defines what will be used in new functions.
  - drivers/apcsmart.h: apcsmart: add command @ to compatibility tables.
  - drivers/apcsmart.c, drivers/apcsmart.h: apcsmart: trivial changes
  - drivers/apcsmart.c: apcsmart: fix convert\_data() ... ..we can't assume that argument passed is global or static, so we can't just return it as is
-

**2.2289 2011-06-28 Arnaud Quette <arnaud.quette@free.fr>**

- data/driver.list.in: Add various models equipped with APC AP9618 management card, ... including APC Smart-UPS RT XL, to the list of snmp-ups supported models (reported by Angela Williams)

**2.2290 2011-06-27 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- tools/nut-scanner/device.h, tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_snmp.c: Add NUT server scan.

**2.2291 2011-06-24 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- drivers/main.c: Merge from trunk [SVN:3002] to [SVN:3057]
- drivers/bcmxcp\_usb.c: Correct configuration value for usb\_set\_configuration

**2.2292 2011-06-22 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- tools/nut-scanner/Makefile.am: Fix "make distcheck-light"
- tools/nut-scanner/scan\_snmp.c: Correct way to fix snmp device name (by Arjen de Korte)

**2.2293 2011-06-21 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- tools/nut-scanner/scan\_xml\_http.c: Use NUT const
- tools/nut-scanner/ip.c, tools/nut-scanner/ip.h: Forgot to commit the new files for iterator
- tools/nut-scanner/Makefile.am, tools/nut-scanner/nut-scan.h, tools/nut-scanner/scan\_snmp.c: Factorize IP iterator
- tools/nut-scanner/Makefile.am: Remove unneeded reference to \*.h files
- tools/Makefile.am, tools/nut-scanner/nutscan-snmp.h, tools/nut-snmppinfo.py: Add python script to generate nutscan-snmp.h at "make dist" time
- tools/nut-scanner/scan\_snmp.c: End of snmp device name fix started in previous commit ... ([SVN:3048] was committed too early on my mistake).
- tools/nut-scanner/nutscan-snmp.h, tools/nut-scanner/scan\_snmp.c: [Commit comment was empty.]

**2.2294 2011-06-17 Arjen de Korte <adkorte-guest@alioth.debian.org>**

- docs/man/blazer.txt, drivers/blazer.c: Add preselection of communication protocol used

**2.2295 2011-06-16 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- tools/nut-scanner/scan\_xml\_http.c: Add "desc" option to xml\_http devices
  - drivers/snmp-ups.c: Fix SNMP v3 session initialisation
  - tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_snmp.c: Add SNMP v3
-



**2.2296 2011-06-15 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_snmp.c: Add "community" switch for SNMP v1
- tools/nut-scanner/scan\_snmp.c: Add IPv6 to SNMP scan
- configure.in: Detecting pthread availability (by Arnaud Quette)

**2.2297 2011-06-14 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- tools/nut-scanner/scan\_snmp.c: Add threads optimisation to SNMP
- tools/nut-scanner/nut-scanner.c: Update command line help
- tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/nutscan-snmp.h, tools/nut-scanner/scan\_snmp.c: Add SNMP IPv4 discovery

**2.2298 2011-06-08 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- tools/nut-scanner/nut-scanner.c: Adding command line parameters managment

**2.2299 2011-06-08 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- docs/website/web-layout.conf: Update the Firefox download button, since the previous one has disappeared
- docs/website/news.txt, docs/website/projects.txt: Add a news entry, and a reference in the Related projects, ... ..on Dell PowerVault NX3500, which uses NUT for power protection (approved by Dell)

**2.2300 2011-06-07 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- tools/nut-scanner/scan\_usb.c, tools/nut-scanner/scan\_xml\_http.c: Clean up \+ check 80 column wide
- tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_xml\_http.c: Timeout is passed in argument to scan\_xml\_http
- tools/nut-scanner/nut-scan.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_xml\_http.c: Enable XML/HTTP scanning
- tools/nut-scanner/scan\_usb.c: Use the add\_device\_to\_device function
- tools/nut-scanner/device.c, tools/nut-scanner/device.h: Add a function to join two device

**2.2301 2011-06-06 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- tools/nut-scanner/device.c, tools/nut-scanner/device.h, tools/nut-scanner/display.c, tools/nut-scanner/scan\_usb.c, tools/nut-scanner/scan\_xml\_http.c: More flexible way to manage optional parameter of each devices. ... .. via a simple linked list
- tools/nut-scanner/display.h, tools/nut-scanner/{scan\_usb.h ⇒ nut-scan.h}, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_usb.c, tools/nut-scanner/scan\_ipmi.h, tools/nut-scanner/scan\_nut.h, tools/nut-scanner/scan\_snmp.h, tools/nut-scanner/scan\_xml\_http.h: Keep only one file for nut-scan library interface
- tools/nut-scanner/display.h: typo

**2.2302 2011-06-04 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- data/driver.list.in: Add PowerWalker VI 850 LCD to the list of blazer\_usb supported models (reported by Wayne Thomas)
-

**2.2303 2011-06-03 Arnaud Quette <arnaud.quette@free.fr>**

- tools/nut-scanner/Makefile.am, tools/nut-scanner/device.c, tools/nut-scanner/device.h, tools/nut-scanner/display.c, tools/nut-scanner/display.h, tools/nut-scanner/nut-scanner.c, tools/nut-scanner/scan\_avahi.c, tools/nut-scanner/scan\_avahi.h, tools/nut-scanner/scan\_ipmi.c, tools/nut-scanner/scan\_ipmi.h, tools/nut-scanner/scan\_nut.c, tools/nut-scanner/scan\_nut.h, tools/nut-scanner/scan\_snmp.h, tools/nut-scanner/scan\_usb.c, tools/nut-scanner/scan\_usb.h, tools/nut-scanner/scan\_xml\_http.c, tools/nut-scanner/scan\_xml\_http.h: Preliminary nut-scanner architecture (on behalf of Fred Bohe, Eaton)

**2.2304 2011-06-01 Arnaud Quette <arnaud.quette@free.fr>**

- docs/download.txt: Add the missing SHA-256 sum on the Download page / section
- NEWS, UPGRADING, configure.in, docs/download.txt, docs/website/news.txt: Final update for 2.6.1 release
- docs/configure.txt: Update *--with-all* option documentation
- configure.in: HAL deprecation (continued): HAL support is not enabled anymore when using *--with-all* configure option
- drivers/mge-hid.c: Add support for *battery.runtime.low*
- data/cmdvartab: Add the missing entry for *ups.efficiency*
- data/driver.list.in: Add Vivaldi EA200 LED to the list of richcomm\_usb supported models (reported by Sergey Talchuk)
- drivers/mge-hid.c: Add *ups.efficiency* data, supported by Eaton 5 PX

**2.2305 2011-05-31 Arnaud Quette <arnaud.quette@free.fr>**

- docs/nut-names.txt: Documentation the new *ups.efficiency* NUT variable
- data/driver.list.in: Add Eaton 5 PX... to the list of usbhid-ups, mge-shut and newmge-shut supported models
- scripts/upower/95-upower-hid.rules: Update UPower script with Phoenixtec fix
- tools/nut-usbinfo.pl: Do not overwrite manufacturer names with empty values
- drivers/liebert-hid.c: Fix USB VendorID 0x06da, which is Phoenixtec, not Liebert
- docs/download.txt: Update Subversion access information, following Alioth update
- docs/download.txt, docs/website/news.txt: Add the Windows Beta package information

**2.2306 2011-05-27 Arnaud Quette <arnaud.quette@free.fr>**

- tools/nut-scanner/Makefile.am, tools/nut-scanner/nut-scanner.c: Add build rules for libnut-scan library, and some more comments

**2.2307 2011-05-27 Arjen de Korte <adkorte-guest@alioth.debian.org>**

- scripts/upower/95-upower-hid.rules: Update upower script with Powerware entry
- drivers/blazer.c: Don't log status read failures until MAXTRIES subsequent failures. Occasional communication errors are common for these devices and are not a concern.

**2.2308 2011-05-26 Arnaud Quette <arnaud.quette@free.fr>**

- drivers/bcmxcp.c, drivers/bcmxcp\_ser.c: Improve bcmxcp support for older PowerWare 9315 (patch from Chris Adams)
-

**2.2309 2011-05-25 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- scripts/Windows/DriverInstaller/README.txt, scripts/Windows/DriverInstaller/nutscan-usb.h, scripts/Windows/DriverInstaller/wdi-simple.c, scripts/Windows/Installer/BuildInstaller.bat, scripts/Windows/Installer/NUT-Installer.xml, scripts/Windows/Makefile.am, scripts/Windows/wininit.c: Converting some files to Unix-style line endings
- drivers/blazer\_usb.c, drivers/usb-common.h: merge from trunk [SVN:2990] to [SVN:2997]

**2.2310 2011-05-25 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- m4/nut\_type\_socklen\_t.m4: Fix Winsock2 testing and result publication
- server/netinstcmd.c: Fix the missing *extra value* handling for instant commands

**2.2311 2011-05-24 Michal Soltys <[msoltyspl-guest@alioth.debian.org](mailto:msoltyspl-guest@alioth.debian.org)>**

- drivers/apcsmart.c: apcsmart.c: fix upsdrv\_shutdown\_advanced() - ... with *continue* statement, sdcmnd\_\*s ignoring *n* weren't called.

**2.2312 2011-05-24 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- m4/nut\_check\_socketlib.m4: convert end of line to unix style
- scripts/Windows/Installer/NUT-Installer.xml: Add files in the project's root (README, INSTALL...)
- m4/nut\_check\_socketlib.m4: nut\_check\_socketlib.m4 has been removed from trunk, ... but Win32 still needs it for winsock

**2.2313 2011-05-23 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- scripts/Windows/Installer/NUT-Installer.xml: Remove useless empty directories

**2.2314 2011-05-20 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- drivers/Makefile.am, m4/nut\_check\_libusb.m4: This doesn't make it through the previous merge from trunk

**2.2315 2011-05-20 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- drivers/blazer\_usb.c, drivers/usb-common.h: Don't use the USB\_DEVICE() declaration macro with non compliant identifiers, ... .. such as blazer\_usb' krauler subdriver

**2.2316 2011-05-20 Arjen de Korte <[adkorte-guest@alioth.debian.org](mailto:adkorte-guest@alioth.debian.org)>**

- drivers/blazer\_usb.c: Don't use the USB\_DEVICE() declaration macro with non compliant identifiers, ... .. such as blazer\_usb' krauler subdriver (missing from previous commit)

**2.2317 2011-05-19 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- server/netlist.c: State explicetely when device description is not available, ... ..to avoid user confusion (reported by Noel David Torres Taño, Debian bug [#595773](#))
  - docs/man/powercom.txt, drivers/powercom.c: Improve formating and wording of the powercom documentation, ... .. manual page and driver messages (patch from Keven L. Ates)
-

**2.2318 2011-05-17 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- scripts/Windows/DriverInstaller/README.txt, scripts/Windows/DriverInstaller/nutscan-usb.h, scripts/Windows/DriverInstaller/wdi-simple.c: Add source files and a note on how to compile the automatic driver installer.
- scripts/Windows/Installer/NUT-Installer.xml: Add a check box for launching the automatic libUSB drivers installation
- conf/upsmon.conf.sample.in: Add hints to configure SHUTDOWNCMD and POWERDOWNFLAG

**2.2319 2011-05-16 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- scripts/Windows/Installer/NUT-Installer.xml: [Installer] Include documentation in HTML format

**2.2320 2011-05-13 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- drivers/powercom.c, drivers/powercom.h: Improve PowerCom BNT 1500A and BNT-other support, ... ..and bump driver version to 0.13 (patch from Keven L. Ates)

**2.2321 2011-05-11 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- clients/upsmon.c: forgot to change wait duration.
- clients/upsmon.c, clients/upsmon.h, common/wincompat.c, include/common.h, include/wincompat.h, scripts/Windows/wininit.c, server/upsd.c, server/upsd.h: Using named pipe for a better port of signals.

**2.2322 2011-05-03 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- scripts/Windows/wininit.c: Add a call to "upsdvctl shutdown" if POWERDOWNFLAG is set when service exits.

**2.2323 2011-05-02 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- clients/upsmon.c: Makes the call to "wall" function non blocking,
  - i. ...or else the automatic power-fail shutdown is blocked waiting for the MessageBox to be clicked.

**2.2324 2011-04-30 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- data/driver.list.in: Complete Informer Compact supported VA ratings (reported by Dushan Tcholich)

**2.2325 2011-04-27 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- docs/website/Makefile.am: Enable website quirks to address Internet Explorer 6, ... ..which were missing since 2.6.0 publication
- docs/website/web-layout.conf: Complete meta keywords, and enable meta name and keywords on all pages
- data/driver.list.in: Add Numeric 3000 SW to the list of blazer\_ser supported models (reported by Petr Kubánek)

**2.2326 2011-04-26 Arjen de Korte <[adkorte-guest@alioth.debian.org](mailto:adkorte-guest@alioth.debian.org)>**

- data/driver.list.in, drivers/blazer\_usb.c: Add support for GE EP series [<http://lists.alioth.debian.org/pipermail/nut-upsuser/-2011-April/006788.html>]

**2.2327 2011-04-19 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- tools/nut-scanner/nut-scanner.c: Flush remaining comments for this proof-of-concept

**2.2328 2011-04-18 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- drivers/libhid.c: Smarter solution for [SVN:2972] (pointed by Arjen de Korte)
- drivers/libhid.c: Trim extraneous end-of-line in buggy HID string tables, ... which results in upsc breaking the communication pipe (Ubuntu bug [#753661](#))

**2.2329 2011-04-15 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- docs/stable-hcl.txt: Detail existing guidelines for reporting new device entry
- docs/features.txt: Refreshed graphic illustrations credits
- docs/images/advanced.png, docs/images/bigbox.png, docs/images/bizarre.png, docs/images/simple.png: Refreshed graphic illustrations (provided by Eaton)

**2.2330 2011-04-07 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- scripts/Windows/Installer/NUT-Installer.xml: Update NUT version (by Praveen Kumar)
- scripts/Windows/wininit.c: More generic wrong MODE handling \+ log same message as Linux version.

**2.2331 2011-04-06 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- drivers/upsdrvctl.c: fix "upsdrvctl shutdown" command
- scripts/Windows/wininit.c: NUT is automatically started during system startup

**2.2332 2011-04-01 Arjen de Korte <[adkorte-guest@alioth.debian.org](mailto:adkorte-guest@alioth.debian.org)>**

- data/driver.list.in: Add Inform Sinus SS 210 to list of supported devices [<http://lists.alioth.debian.org/pipermail/nut-upuser/2011-March/006767.html>]
- drivers/cps-hid.c: Clamp reported battery charge to 100% (seems to report AbsoluteStateOfCharge instead of RemainingCapacity) [<http://lists.alioth.debian.org/pipermail/nut-upuser/2011-March/006770.html>]

**2.2333 2011-03-31 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- data/driver.list.in, drivers/mge-hid.c: Add Eaton Powerware 9140 to the list of usbhid-ups supported models

**2.2334 2011-03-29 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- lib/libupsclient-config.in, lib/libupsclient.pc.in: Fix remaining references to LIBSSL\_LDFLAGS, ... instead of LIBSSL\_LIBS, which cause unresolved symbol on libupsclient users (reported by Fabrice Coutadeur on Ubuntu)

**2.2335 2011-03-29 Arjen de Korte <[adkorte-guest@alioth.debian.org](mailto:adkorte-guest@alioth.debian.org)>**

- drivers/blazer.c, drivers/blazer\_usb.c: Make the terminating \r in the Q1 reply optional
-

**2.2336 2011-03-28 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- drivers/apcsmart.c, drivers/dstate.c, include/nut\_stdint.h: Merge with trunk

**2.2337 2011-03-23 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- INSTALL.nut: Add information on installation
- INSTALL: Reverting previous commit (should not be in the trunk)
- INSTALL: Add information about installing Windows

**2.2338 2011-03-22 Praveen Kumar <[praveenkumar-guest@alioth.debian.org](mailto:praveenkumar-guest@alioth.debian.org)>**

- .../Installer/ImageFiles/Binary/bannrbmp.ibd, .../Windows/Installer/ImageFiles/Binary/dlgbmp.ibd, .../ImageFiles/Images/NUT\_wix\_vertical.bmp, .../Installer/ImageFiles/Others/DeRegister.bat, .../ImageFiles/{Binary/New.ibd ⇒ icons/New.ico}, .../ImageFiles/{Binary/Up.ibd ⇒ icons/Up.ico}, .../ImageFiles/{Binary/completi.ibd ⇒ icons/completi.ico}, .../ImageFiles/{Binary/custicon.ibd ⇒ icons/custicon.ico}, .../ImageFiles/{Binary/exclamic.ibd ⇒ icons/exclamic.ico}, .../ImageFiles/{Binary/info.ibd ⇒ icons/info.ico}, .../ImageFiles/{Binary/insticon.ibd ⇒ icons/insticon.ico}, .../ImageFiles/{Binary/removico.ibd ⇒ icons/removico.ico}, .../ImageFiles/{Binary/repairic.ibd ⇒ icons/repairic.ico}, .../Installer/ImageFiles/libusb/libusb\_win32.exe, scripts/Windows/Installer/NUT-Installer.xml: Removed binary files (DLL & ibd) and Updated with icons and .bmp images. ... for NUT windows Installer.

**2.2339 2011-03-22 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- scripts/Windows/Installer/NUT-Installer.xml: commit again a small typo
- .../ImageFiles/Images/NUT\_wix\_horizontal.bmp, .../ImageFiles/Images/NUT\_wix\_vertical.bmp: Correctly sized banner for Windows installer

**2.2340 2011-03-18 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- scripts/Windows/Installer/NUT-Installer.xml: Remove regex2.dll dependency.
- scripts/Windows/Installer/BuildInstaller.bat: MinGW bin directory and MSYS bin directory are now configurable
- scripts/Windows/Installer/BuildInstaller.bat, .../Installer/ImageFiles/Others/libgnurx-0.dll, .../Windows/Installer/ImageFiles/Others/libgnurx-1.0.dll, .../Installer/ImageFiles/Others/msys-crypto-1.0.0.dll, .../Installer/ImageFiles/Others/msys-ssl-1.0.0.dll, .../Windows/Installer/BuildInstaller.bat: Remove DLL from the SVN repository. They are now gathered from the build system when creating the installer .
- scripts/Windows/Installer/NUT-Installer.xml: small typo

**2.2341 2011-03-18 Arjen de Korte <[adkorte-guest@alioth.debian.org](mailto:adkorte-guest@alioth.debian.org)>**

- include/Makefile.am: The include/nut\_stdint.h file is no longer a generated one (part two)
  - include/Makefile.am: The include/nut\_stdint.h file is no longer a generated one
  - configure.in, include/.gitignore, include/nut\_stdint.h, m4/ax\_create\_stdint\_h.m4: Clean up fixed width integer types. All C99 capable systems have <inttypes.h>, which shall include <stdint.h>.
  - drivers/solis.c: Fix typo in previous commit
  - drivers/solis.c: Fix compilation warning (no functional change)
  - data/driver.list.in: Update driver list for SVEN Power Pro\+ series (recent models ship with a different USB to serial implementation)
  - clients/upssched.c, configure.in, drivers/dstate.c, server/upsd.c: The third argument to accept is an int on HP-UX... ...if \_XOPEN\_SOURCE\_EXTENDED is not defined (reverting previous commit)
  - configure.in: Quick check to see if defining -munix=95 on HP-UX... ...fixes a problem with the accept() call
-

**2.2342 2011-03-16 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- scripts/Windows/Installer/BuildInstaller.bat, .../Windows/Installer/ImageFiles/Binary/New.ibd, scripts/Windows/Installer/ImageFiles/Binary/Up.ibd, .../Installer/ImageFiles/Binary/bannrbmp.ibd, .../Installer/ImageFiles/Binary/completi.ibd, .../Installer/ImageFiles/Binary/dlgbmp.ibd, .../Installer/ImageFiles/Binary/exclamic.ibd, .../Windows/Installer/ImageFiles/Binary/insticon.ibd, .../Installer/ImageFiles/Binary/removico.ibd, .../Installer/ImageFiles/Binary/repairic.ibd, .../Installer/ImageFiles/Others/DeRegister.bat, .../Installer/ImageFiles/Others/StartService.bat, .../Installer/ImageFiles/Others/StopService.bat, .../Installer/ImageFiles/Others/libgnurx-0.dll, .../Installer/ImageFiles/Others/msys-1.0.dll, .../ImageFiles/Others/msys-crypto-1.0.0.dll, .../Installer/ImageFiles/Others/msys-ssl-1.0.0.dll, .../Windows/Installer/ImageFiles/Others/regex2.dll, .../Installer/ImageFiles/Bin/temp.txt, .../Installer/ImageFiles/emptyDir/html/temp.txt, .../Installer/ImageFiles/emptyDir/include/temp.txt, .../Installer/ImageFiles/emptyDir/man3/temp.txt, .../ImageFiles/emptyDir/pkgconfig/temp.txt, .../Installer/ImageFiles/emptyDir/ruby/temp.txt, .../Installer/ImageFiles/icons/powernut\_Stop.ico, .../Installer/ImageFiles/icons/powernut\_logo.ico, .../Installer/ImageFiles/libusb/libusb-win32.dll, scripts/Windows/Installer/NUT-Installer.xml: Windows scripts and support files for NUT Windows installer using WIX (from Praveen Kumar)
- scripts/Windows/wininit.c: Handle properly the "none" MODE in nut.conf
- scripts/Windows/wininit.c: Fix a crash if configuration files are wrong in non-service mode
- scripts/Windows/wininit.c: Add some console output when running in non-service mode

**2.2343 2011-03-15 Chetan Agarwal <[chetanagarwal-guest@alioth.debian.org](mailto:chetanagarwal-guest@alioth.debian.org)>**

- drivers/rhino.c: Fix compilation error (no functional change)
- drivers/rhino.c: Fix missing comment closure from previous commit (no functional change)
- drivers/bcmxcp\_usb.c, drivers/microdowell.c, drivers/rhino.c, drivers/solis.c: Fix remaining C++ style comments, to conform to the NUT coding rules (no functional change) on behalf of Prachi Gandhi ([prachisgandhi@eaton.com](mailto:prachisgandhi@eaton.com))

**2.2344 2011-03-14 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- data/driver.list.in: Add IPAR Mini Energy ME 800 to the list of blazer\_usb supported models

**2.2345 2011-03-14 Arjen de Korte <[adkorte-guest@alioth.debian.org](mailto:adkorte-guest@alioth.debian.org)>**

- configure.in: Quick check to see if defining \_REENTRANT on HP-UX fixes a compilation warning

**2.2346 2011-03-06 Arjen de Korte <[adkorte-guest@alioth.debian.org](mailto:adkorte-guest@alioth.debian.org)>**

- drivers/apcsmart.c: Fix another compilation warning. Some compilers (rightfully) claim that the value of *n* may be used without initialization. Until this is resolved, skip over this if the value isn't set.
  - drivers/apcsmart.c: Fix compilation warning
  - drivers/apcsmart.h: Add additional Matrix models [<http://lists.alioth.debian.org/pipermail/nut-upsdev/2011-March/005319.html>]
  - drivers/apcsmart.c: Flush the input buffer before sending a command [on behalf of Michal Soltys <[soltys@ziu.info](mailto:soltys@ziu.info)>]
  - drivers/apcsmart.c, drivers/apcsmart.h: protocol\_verify() only cares about explicitly specified commands... and variables [on behalf of Michal Soltys <[soltys@ziu.info](mailto:soltys@ziu.info)>]
  - drivers/apcsmart.c: Additional driver variables that can be set to influence shutdown behavior [on behalf of Michal Soltys <[soltys@ziu.info](mailto:soltys@ziu.info)>]
  - drivers/apcsmart.c: Update version and author info [on behalf of Michal Soltys <[soltys@ziu.info](mailto:soltys@ziu.info)>]
  - drivers/apcsmart.c: Deal with more different shutdown methods [on behalf of Michal Soltys <[soltys@ziu.info](mailto:soltys@ziu.info)>]
-



- drivers/apcsmart.c: As *b* can return different things than firmware version on some old models ... prefer *V* over *b* [on behalf of Michal Soltys <[soltys@ziu.info](mailto:soltys@ziu.info)>]
- drivers/apcsmart.c: remove superfluous status\_commit() [on behalf of Michal Soltys <[soltys@ziu.info](mailto:soltys@ziu.info)>]
- drivers/apcsmart.c, drivers/apcsmart.h: adjust ignored chars and handle over/\~over [on behalf of Michal Soltys <[soltys@ziu.info](mailto:soltys@ziu.info)>]
- drivers/apcsmart.c: cosmetics [on behalf of Michal Soltys <[soltys@ziu.info](mailto:soltys@ziu.info)>]
- drivers/apcsmart.c, drivers/apcsmart.h: remove APC\_IGNORE [on behalf of Michal Soltys <[soltys@ziu.info](mailto:soltys@ziu.info)>]
- drivers/apcsmart.h: add compat hardware, add commands [on behalf of Michal Soltys <[soltys@ziu.info](mailto:soltys@ziu.info)>]
- drivers/apcsmart.h: cosmetics - adjust tabs [on behalf of Michal Soltys <[soltys@ziu.info](mailto:soltys@ziu.info)>]

### 2.2347 2011-03-02 Charles Lepple <[clepple+nut@gmail.com](mailto:clepple+nut@gmail.com)>

- docs/FAQ.txt: Update Mac power-on FAQ

### 2.2348 2011-03-01 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>

- configure.in, tools/Makefile.am, tools/nut-scanner/.gitignore, tools/nut-scanner/Makefile.am, tools/nut-scanner/nut-scanner.c, tools/nut-usbinfop.pl: First stab to create the nut-scanner (proof of concept), ... with full USB support, and preliminary support for NUT and Eaton XML/HTTP scan
- drivers/liebert-esp2.c: Improved Liebert ESP II support, ... including UPS shutdown (poweroff), 1 and 3-phase input and output variables, and most input / output / bypass / nominal variables, along with a fix for the USB to serial cable (patch from Farkas Levente and Spiros Ioannou)
- data/driver.list.in: Add Eaton Powerware 9140, using the serial interface, ... to the list of bcmxcp supported models

### 2.2349 2011-02-25 Charles Lepple <[clepple+nut@gmail.com](mailto:clepple+nut@gmail.com)>

- docs/download.txt: Moved SHA-256 value into download page, and reformatted a bit.

### 2.2350 2011-02-24 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>

- drivers/libusb0.c, drivers/libusb1.c: Correctly manage time-out in libusb

### 2.2351 2011-02-24 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>

- data/driver.list.in: Add several upscore2 supported devices that were reported on the list: <http://lists.alioth.debian.org/pipermail/nut-upsdev/2011-February/005281.html> <http://lists.alioth.debian.org/pipermail/nut-upsuser/2005-July/000031.html>

### 2.2352 2011-02-22 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>

- scripts/Windows/wininit.c: Add a Sleep before running upsmon... or else we are spamed with communication errors. Try to properly close all handles.

### 2.2353 2011-02-21 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>

- data/driver.list.in, drivers/mge-hid.c: Add Eaton Ellipse ECO (with Eco control support)... to the list of usbhid-ups supported models
  - drivers/eaton-mib.c: Add support for the first ambient sensor (up to 8 sensors can be supported) on Eaton ePDU managed
  - clients/upsrw.c: Add the missing *help* handler (*-h*) to the supported options
-

**2.2354 2011-02-20 Arjen de Korte <[adkorte-guest@alioth.debian.org](mailto:adkorte-guest@alioth.debian.org)>**

- docs/man/ups.conf.txt, drivers/dstate.c: Variables that have an override.<variable> in ups.conf are now really immutable. They can't be changed anymore (not even if they would have been R/W otherwise). Rationale is, that if a user wants to override a value, we should honor that request. Added documentation accordingly (and corrected previous commit).
- docs/man/ups.conf.txt, drivers/dstate.c, drivers/main.c: Add *ignorelb* flag to list of UPS fields in ups.conf... ..to override the LB condition reported by the UPS. This allows all drivers that report battery.charge (battery.runtime) to shutdown early by setting this flag and battery.charge.low (battery.runtime.low) in ups.conf.
- data/driver.list.in: Removing subdriver setting (cypress is auto detected for this VID:PID combination, so there is no need to specify this in usb.conf)

**2.2355 2011-02-19 Charles Lepple <[clepple+nut@gmail.com](mailto:clepple+nut@gmail.com)>**

- data/driver.list.in: Add Mustek Yukai PowerMust 1000 USB Reported by Noel David Torres Taño: <http://lists.alioth.debian.org/pipermail/nut-upsuser/2010-August/006163.html> Other models may be supported as well. \* [http://www.mustek.com.tw/Yukai/html/prod\\_ups/PowerMust1000.html](http://www.mustek.com.tw/Yukai/html/prod_ups/PowerMust1000.html) \* <http://www.mustek.com.tw/Yukai/html/UPS.html>

**2.2356 2011-02-17 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- docs/download.txt: Preliminary support for source release hash, using unsigned SHA256 sum

**2.2357 2011-02-15 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- include/common.h, scripts/Windows/wininit.c: Let nut.exe calls its children through their relatives paths

**2.2358 2011-02-15 Charles Lepple <[clepple+nut@gmail.com](mailto:clepple+nut@gmail.com)>**

- data/driver.list.in: HCL: Re-add some devices to driver.list.in from [SVN:2516] These entries seem to have been dropped, potentially due to the rename from driver.list to driver.list.in, and the format change.

**2.2359 2011-02-15 Arjen de Korte <[adkorte-guest@alioth.debian.org](mailto:adkorte-guest@alioth.debian.org)>**

- common/parseconf.c: In PCONF\_CTX\_t, argsize is an array of type size\_t values, ... ..so instead of using sizeof(int \*) we really should use sizeof(size\_t) for the size of individual elements

**2.2360 2011-02-14 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- scripts/Windows/wininit.c: Extent print\_event capabilities

**2.2361 2011-02-11 Arjen de Korte <[adkorte-guest@alioth.debian.org](mailto:adkorte-guest@alioth.debian.org)>**

- drivers/libhid.c: Restore the nut-2.4.1 behavior for reading reports from devices

**2.2362 2011-02-09 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- clients/upsmon.c: Add date to notification
  - drivers/dummy-ups.c: Fix a memory leak in dummy-ups driver
-

**2.2363 2011-02-09 Arjen de Korte <[adkorte-guest@alioth.debian.org](mailto:adkorte-guest@alioth.debian.org)>**

- drivers/dummy-ups.c: Prefer *snprintf* and *snprintfcat* over *strncat* (the latter can overflow the destination buffer)

**2.2364 2011-02-08 Arjen de Korte <[adkorte-guest@alioth.debian.org](mailto:adkorte-guest@alioth.debian.org)>**

- drivers/apc-hid.c: Add yet another way to shutdown the APC CS-500 [<http://lists.alioth.debian.org/pipermail/nut-upsuser/2011-January/006550.html>]

**2.2365 2011-02-07 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- common/wincompat.c: small typo
- common/wincompat.c: Prefer *upsdebugx* to *upslogx* for low level output

**2.2366 2011-02-02 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- drivers/dstate.c: clean-up *printf* calls
- common/common.c, drivers/upsdrvctl.c: Fix "upsdrvctl start" path issue

**2.2367 2011-02-02 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- drivers/mge-hid.c: Fix a wrong value mapping resolution, and bump driver's HID data version to 1.20
- docs/website/web-layout.conf: Unconditional inclusion of Google Analytics code
- docs/man/dummy-ups.txt, docs/man/metasys.txt, drivers/apcsmart.c, drivers/dummy-ups.c, drivers/genericups.c, drivers/metasys.c, drivers/snmp-ups.c: Fix some spelling errors (base patch from Laurent Bigonville, from Debian)

**2.2368 2011-02-01 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- scripts/Windows/Makefile.am: Fix "make distckeck-light" in Windows environment

**2.2369 2011-01-31 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- clients/Makefile.am, common/common.c: Fix compilation on buildbot

**2.2370 2011-01-31 Charles Lepple <[clepple+nut@gmail.com](mailto:clepple+nut@gmail.com)>**

- docs/documentation.txt, docs/download.txt: Update URL for Trac.

**2.2371 2011-01-28 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- clients/upsmon.c: *upslog\_with\_errno* does not call *exit()* nor *return*, ... .. so let the memory be freed at the end of the function (fix a double free)
  - drivers/mge-xml.c: Fix warning in *mge-xml.c*
  - drivers/libshut.c, drivers/libshut.h: Fix warnings in *libshut.c*.
-

**2.2372 2011-01-28 Arnaud Quette <arnaud.quette@free.fr>**

- docs/security.txt: Fix content to satisfy Docbook
- configure.in: Add missing variables setting, to allow AC\_SUBST() propagation

**2.2373 2011-01-27 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- drivers/isbmex.c: Porting isbmex driver
- drivers/main.c: Fix warnings in main.c
- clients/upsmon.c: Fix another race condition in notify.
- clients/upsmon.c: Fix possible race in notify.
- clients/upsmon.h: Fix warning in upsmon.h
- common/wincompat.c: Fix warning in wincompat.c
- configure.ac: Disable Hotplug and udev support on Windows (useful when cross-compiling)
- common/common.c, include/common.h: Cleaner warning fix in common.c
- clients/upsclient.c, common/wincompat.c, drivers/libhid.c, drivers/mge-xml.c, drivers/netxml-ups.c, include/wincompat.h: Add strtok\_r implementation and remove last "#define strtok\_r"

**2.2374 2011-01-27 Chetan Agarwal <chetanagarwal-guest@alioth.debian.org>**

- drivers/bcmxcp.c: Added implementation for *test.system.start* instant command.
- drivers/bcmxcp.h: Added constants for return code and UPS status.
- data/cmdvartab: Added description for *test.system.start* command.
- docs/new-names.txt: Added test.system.start variable

**2.2375 2011-01-26 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- docs/configure.txt, nut-autoreconf: Merge from trunk
- drivers/main.h, drivers/serial.c: More clean-up of wincompat
- common/common.c: Fix a warning
- drivers/main.h, include/wincompat.h: Clean-up : put compatibility macros in wincompat.h
- clients/upsmon.c: upsmon does not fork in WIN32

**2.2376 2011-01-22 Arjen de Korte <adkorte-guest@alioth.debian.org>**

- drivers/apc-hid.c: Add mappings to APC HID subdriver

**2.2377 2011-01-19 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- common/common.c: Compilation fix (from Arjen de Korte)
-

**2.2378 2011-01-19 Emilien Kia <kiae.dev@gmail.com>**

- docs/asciidoc.conf, docs/dir\_conflicts.prej, m4/nut\_check\_libnss.m4, m4/nut\_check\_libopenssl.m4, scripts/upower/95-upower-hid.rules: Finish trunk merging (see previous commit).
- COPYING, INSTALL, Makefile.am, NEWS, README, UPGRADING, autogen.sh, clients/Makefile.am, configure.in, data/.gitignore, data/Makefile.am, data/driver.list.in, data/epdu-managed.dev, data/{ evolution500.dev ⇒ evolution500.seq }, docs/.gitignore, docs/Makefile.am, docs/config-notes.txt, docs/configure.txt, docs/developer-guide.txt, docs/docinfo.xml, docs/documentation.txt, docs/download.txt, docs/history.txt, docs/images/old-cgi.png, docs/man/.gitignore, docs/nut-names.txt, docs/{ website ⇒ }/stable-hcl.txt, docs/support.txt, docs/user-manual.txt, docs/website/Makefile.am, docs/website/news.txt, docs/website/website.txt, drivers/.gitignore, drivers/Makefile.am, drivers/idowell-hid.c, drivers/idowell-hid.h, drivers/usbhid-ups.c, m4/nut\_check\_libhal.m4, m4/nut\_check\_libnetbsd.m4, m4/nut\_check\_libnetsnmp.m4, m4/nut\_check\_libpowerman.m4, m4/nut\_check\_libusb.m4, m4/nut\_check\_libwrap.m4, scripts/Makefile.am, scripts/README, scripts/augeas/Makefile.am, scripts/augeas/README, scripts/augeas/gen-nutupsconf-aug.py, scripts/augeas/nuthostsconf.aug.in, scripts/augeas/nutnutconf.aug.in, scripts/augeas/nutupsconf.aug.tpl, scripts/augeas/nutupsdconf.aug.in, scripts/augeas/nutupsdusers.aug.in, scripts/augeas/nutupsmonconf.aug.in, scripts/augeas/nutupsschedconf.aug.in, scripts/augeas/nutupssetconf.aug.in, scripts/augeas/tests/test\_nut.aug, scripts/hal/.gitignore, scripts/hal/ups-nut-device.fdi.in, scripts/hotplug/.gitignore, scripts/hotplug/libhid.usermap, scripts/python/app/NUT-Monitor, scripts/python/module/PyNUT.py, scripts/python/module/test\_nutclient.py, scripts/udev/.gitignore, scripts/udev/nut-usbups.rules.in, scripts/upower/95-upower-hid.rules, server/Makefile.am, server/conf.c, server/desc.c, tools/Makefile.am, tools/nut-hclinfo.py, tools/nut-usbinfo.pl: Merge from trunk ([SVN:2777] to HEAD).
- clients/upsmon.c, conf/upsd.conf.sample, docs/man/upsd.conf.txt, docs/security.txt, server/conf.c, server/netssl.c, server/netssl.h: Add flag to deactivate client certificate validation (in upsd). Define WITH\_CLIENT\_CERTIFICATE\_VALIDATION flag to enable it.

**2.2379 2011-01-18 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- common/common.c, scripts/Windows/wininit.c: Safer relative path management
- scripts/Windows/wininit.c: Fix service access to configuration path

**2.2380 2011-01-18 Emilien Kia <kiae.dev@gmail.com>**

- clients/upsclient.c, clients/upsmon.c: Move warning message about CERTVERIFY in upscli... to be coherent with real behavior.
- clients/upsclient.c: Force to disable SSLv2 handshake compatibility (if no, nss can not connect to openssl server).
- clients/upsclient.c: Force disconnect if SSL is not available and CERTVERIFY is 1 (but no FORCESSL).
- clients/upsclient.c, clients/upsmon.c: Fix CERTVERIFY behaviour for NSS.
- conf/upsd.conf.sample: Forget a comment heading #.
- clients/upsclient.c: Prevent segfault.

**2.2381 2011-01-18 Arjen de Korte <adkorte-guest@alioth.debian.org>**

- common/common.c: Prefer to use static variables locally over global variables (to prevent namespace conflicts)

**2.2382 2011-01-17 Charles Lepple <clepple+nut@gmail.com>**

- scripts/Makefile.am: Include perl/Nut.pm in tarball.
  - COPYING, Makefile.am: Include LICENSE-GPL{2,3} in tarball. Made the text in COPYING agree with the filenames.
-

**2.2383 2011-01-14 Emilien Kia <[kiae.dev@gmail.com](mailto:kiae.dev@gmail.com)>**

- server/netssl.c: Prevent infinite loop when password is not found.

**2.2384 2011-01-13 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- Makefile.am, clients/upsc.c, clients/upscclient.c, clients/upscmd.c, clients/upslog.c, clients/upsmon.c, clients/upsrw.c, common/inet\_aton.c, common/state.c, common/wincompat.c, docs/configure.txt, docs/images/eaton-logo.png, docs/man/upsd.users.txt, drivers/dstate.c, drivers/dstate.h, drivers/dummy-ups.h, drivers/serial.h, drivers/upsdrvctl.c, include/common.h, include/wincompat.h, nut-autoreconf, scripts/Windows/wininit.c, server/conf.c, server/ssl.c, server/sstate.c, server/upsd.c, server/upsd.h, server/user.c: Merge from the trunk → porting the IPv6 code to Windows [re-added lost man files, and edited out conflict markers. -CFL]

**2.2385 2011-01-11 Emilien Kia <[kiae.dev@gmail.com](mailto:kiae.dev@gmail.com)>**

- docs/man/Makefile.am, docs/man/upscli\_add\_host\_cert.txt, docs/man/upscli\_cleanup.txt, docs/man/upscli\_init.txt, docs/man/upsclient.txt: Add upscli API doc.
- conf/upsd.conf.sample, docs/man/upsd.conf.txt, server/conf.c, server/netssl.c: Use CERTFILE directive for openssl and CERTPATH for nss.

**2.2386 2011-01-11 Arjen de Korte <[adkorte-guest@alioth.debian.org](mailto:adkorte-guest@alioth.debian.org)>**

- conf/upsmon.conf.sample, docs/man/upsmon.conf.txt: Correct the usage of CERTPATH for OpenSSL

**2.2387 2011-01-10 Emilien Kia <[kiae.dev@gmail.com](mailto:kiae.dev@gmail.com)>**

- docs/security.txt: Add SSL doc about NSS usage.

**2.2388 2011-01-07 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- clients/upsclient.c: Fix client disconnection
- scripts/Windows/wininit.c: code cleanup
- common/common.c, common/wincompat.c, drivers/mge-utalk.c, drivers/serial.h, include/wincompat.h: Fix latency bug for mge-utalk.

**2.2389 2011-01-07 Emilien Kia <[kiae.dev@gmail.com](mailto:kiae.dev@gmail.com)>**

- conf/upsd.conf.sample, conf/upsmon.conf.sample, docs/man/upsd.conf.txt, docs/man/upsmon.conf.txt: Document upsd.conf and upsmon.conf about security directives.
- server/conf.c: Deprecate CERTFILE conf var to the benefit of CERTPATH: ... homogenize conf directive names.

**2.2390 2011-01-06 Emilien Kia <[kiae.dev@gmail.com](mailto:kiae.dev@gmail.com)>**

- clients/upsclient.c, server/netssl.c: More human log.
  - clients/upsclient.c, clients/upsclient.h, clients/upsmon.c, server/conf.c, server/netssl.c, server/netssl.h: Add certificate validation (both server and client sides).
-

**2.2391 2011-01-04 Emilien Kia <kiae.dev@gmail.com>**

- clients/upsclient.c, server/conf.c, server/netssl.c, server/netssl.h, server/upsd.c: Allow to specify server certificate name (instead of hard coded ;)). Remove unused (client only) callback on server.
- server/netssl.c: Add more *lack of initialization* test.
- clients/upsclient.c, server/conf.c, server/netssl.c, server/upsd.c: Prevent memory leaks and add notes about them. Add password to decrypt secret key in server.

**2.2392 2010-12-23 Emilien Kia <kiae.dev@gmail.com>**

- clients/upsclient.c, clients/upsclient.h, clients/upsmon.c, m4/nut\_check\_libnss.m4, server/ctype.h, server/netssl.c, server/netssl.h, server/upsd.c: First implementation of NSS support.

**2.2393 2010-12-22 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- include/common.h, server/upsd.c: Make datapath relative too

**2.2394 2010-12-22 Emilien Kia <kiae.dev@gmail.com>**

- AUTHORS, clients/upsclient.c, conf/ups.conf.sample, configure.in, data/driver.list.in, docs/FAQ.txt, docs/acknowledgements.txt, docs/cables/sms.txt, docs/config-notes.txt, docs/configure.txt, docs/dir\_conflicts.prej, docs/macros.txt, docs/man/Makefile.am, docs/man/blazer.txt, docs/man/index.txt, docs/man/nutupsdrv.txt, docs/man/ups.conf.txt, docs/new-drivers.txt, docs/website/scripts/nut\_jquery.js, drivers/Makefile.am, drivers/dstate.c, drivers/dstate.h, drivers/megatec.c, drivers/megatec.h, drivers/megatec\_usb.c, m4/nut\_check\_os.m4, server/upsd.c, tools/nut-usbinfop.pl: Merge trunk from branch creation

**2.2395 2010-12-21 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- scripts/Windows/Makefile.am: Fix winevent.h generation on clean compile (by Paul Fertser)
- scripts/Windows/Makefile.am: Forgot to remove now useless winevent.dll reference
- configure.ac, scripts/Windows/Makefile.am: Do not use an external DLL anymore. It seems that linking the resources directly into the binary makes the event log happy. (thanks to Paul Fertser for its help)

**2.2396 2010-12-21 Emilien Kia <kiae.dev@gmail.com>**

- INSTALL, Makefile.am, README, docs/ideas.txt ⇒ TODO, UPGRADING, clients/upsclient.c, clients/upsclient.h, clients/upsd.c, clients/upsrw.c, conf/upsd.conf.sample, conf/upsd.users.sample, configure.in, data/Makefile.am, data/driver.list, data/driver.list.in, docs/.gitignore, docs/FAQ, docs/FAQ.txt, docs/Makefile.am, docs/README, docs/acknowledgements.txt, docs/acpi.txt, docs/asciidoc.txt, docs/big-servers.txt, docs/cables.txt, docs/chroot.txt, docs/commands.txt, docs/config-files.txt, docs/config-notes.txt, docs/configure.txt, docs/contact-closure.txt, docs/data-room.txt, docs/design.txt, docs/developer-guide.txt, docs/developers.txt, docs/documentation.txt, docs/download.txt, docs/features.txt, docs/hid-subdrivers.txt, docs/history.txt, docs/images/advanced.png, docs/images/asciidoc.png, docs/images/bigbox.png, docs/images/bizarre.png, docs/images/blue-arrow.png, docs/images/cables/73-0724.png, docs/images/cables/940-0024C.jpg, docs/images/cables/Lansafecable.jpg, docs/images/cables/SOL330.png, docs/images/cables/belkin-f6cx-rkm-xu-cable.jpg, docs/images/cables/mac-940-0024C.png, docs/images/cables/mge-66049.png, docs/images/cables/mge-db9-rj12.jpg, docs/images/cables/mge-db9-rj45.jpg, docs/images/eaton-logo.png, docs/images/note.png, docs/images/nut-banner.png, docs/images/nut\_layering.png, docs/images/nut\_layering.svg, docs/images/simple.png, docs/images/warning.png, docs/macros.txt, docs/man/Makefile.am, man/apcsmart.8 ⇒ docs/man/apcsmart.txt, docs/man/asciidoc.conf, docs/man/bcmxcp.txt, man/bcmxcp\_usb.8 ⇒ docs/man/bcmxcp\_usb.txt, man/belkin.8 ⇒ docs/man/belkin.txt, docs/man/belkinunv.txt, man/bestfcom.8 ⇒ docs/man/bestfcom.txt, docs/man/bestfortress.txt, docs/man/bestfuers.txt, man/bestups.8 ⇒ docs/man/bestups.txt, man/blazer.8 ⇒ docs/man/blazer.txt, man/clone.8 ⇒ docs/man/clone.txt,



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## 2.2397 2010-12-20 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>

- common/wincompat.c, configure.ac, include/common.h: Add usleep() implementation for systems that lack it (patch from Paul Fertser) This is needed e.g. on Debian which ships a really ancient version of mingw runtime.
- common/common.c, include/common.h: Use paths relative to the .exe file's binary for configuration and PID files.

## 2.2398 2010-12-17 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>

- clients/upsclient.c, common/common.c, common/wincompat.c, drivers/belkinunv.c, drivers/bestfcom.c, drivers/bestuferrups.c, drivers/blazer\_ser.c, drivers/ivtscd.c, drivers/mge-utalk.c, drivers/powercom.c, drivers/safenet.c, drivers/serial.c, drivers/serial.h, drivers/upscod2.c, include/common.h, include/wincompat.h, server/upsd.c: First implementation of termios functions
- configure.ac: forgot this for automatic winevent.h and winevent.dll generation
- common/common.c: Simplify timeout calculation

**2.2399 2010-12-16 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- scripts/Windows/Makefile.am: Automatic generation of winevent.h and winevent.dll
- scripts/Windows/Makefile, scripts/Windows/Makefile.am: Update halt.c compilation

**2.2400 2010-12-10 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- common/common.c: Fix timeout calculation
- clients/upsrw.c: upsrw is now working
- clients/upscmd.c: upscmd is now working

**2.2401 2010-12-09 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- common/common.c, drivers/belkinunv.c, drivers/bestfcom.c, drivers/bestfortress.c, drivers/bestuferrups.c, drivers/blazer\_ser.c, drivers/clone-outlet.c, drivers/clone.c, drivers/dummy-ups.c, drivers/genericups.c, drivers/genericups.h, drivers/ivtsd.c, drivers/mge-utalk.c, drivers/microdowell.c, drivers/powercom.c, drivers/powercom.h, drivers/safenet.c, drivers/serial.c, drivers/serial.h, drivers/upscode2.c, include/common.h: More work on serial drivers. Still some TODOs to address but all drivers are compiling now. Successfully tested mge-shut driver.

**2.2402 2010-12-01 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- scripts/Windows/wininit.c: Start upsmon as a single process.
- clients/upsmon.c: upsmon uses a message box instead of wall
- server/nut\_ctype.h, server/upsd.c: Fix upsd clients read

**2.2403 2010-11-30 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- configure.in, docs/configure.txt: Change the default SSL implementation to OpenSSL, ... ..if both OpenSSL and Mozilla NSS are present

**2.2404 2010-11-29 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- drivers/Makefile.am: Reverting useless previous commit: [SVN:2705]

**2.2405 2010-11-29 Arjen de Korte <[adkorte-guest@alioth.debian.org](mailto:adkorte-guest@alioth.debian.org)>**

- server/Makefile.am, server/conf.c, server/netcmds.h, server/{ssl.c ⇒ netssl.c}, server/{ssl.h ⇒ netssl.h}, server/upsd.c: Resolve namespace conflict with nss\_compat\_ossl

**2.2406 2010-11-28 Arjen de Korte <[adkorte-guest@alioth.debian.org](mailto:adkorte-guest@alioth.debian.org)>**

- clients/upsclient.h, m4/nut\_check\_libnss.m4, server/ctype.h, server/ssl.c, server/ssl.h: Use the *nss\_compat\_ossl* compatibility layer. ... to use the Mozilla NSS library instead of OpenSSL (we might want to include native support in the future, but this will at least allow a quick migration for testing purposes)

**2.2407 2010-11-26 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- drivers/Makefile.am: Add regex library for drivers (by Arnaud Quette)
- common/common.c, common/wincompat.c, configure.ac, drivers/dstate.c, drivers/dstate.h, drivers/main.c, drivers/upsdrvctl.c, include/common.h, include/wincompat.h, scripts/Makefile.am, scripts/Windows/Makefile.am, {common ⇒ scripts/Windows}/wineve scripts/Windows/wininit.c, server/sstate.c, server/upsd.c, server/upstype.h: Change the "full services" approach to a more POSIX one. We now have only one Windows service in charge of starting/stopping the relevant NUT processes. It's a Windows replacement for the init script. This service is also a proxy for processes to write to Windows event log. So only one service has to be registered to be able to log event.

**2.2408 2010-11-26 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- clients/upsclient.c, clients/upsclient.h, configure.in, docs/configure.txt, docs/macros.txt, m4/nut\_check\_libnss.m4, m4/nut\_check\_libm4/nut\_check\_libssl.m4, server/ctype.h, server/ssl.c, server/ssl.h: Implement and document detection and activation of SSL support, ... .. using either Mozilla NSS or OpenSSL

**2.2409 2010-11-19 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- clients/upsclient.c: Remove useless header

**2.2410 2010-11-16 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- common/common.c, drivers/main.c: Better use of NUT framework for previous commit
- common/common.c, drivers/main.c, include/common.h, server/upsd.c: We need to register one driver service per ups in upsd.conf. So these drivers need to have different names and command line arguments.

**2.2411 2010-11-05 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- common/common.c, drivers/dstate.c, drivers/main.c, include/common.h, server/upsd.c: More factorization and fix a bug in drivers services stop
- configure.ac: This 3 lines has been duplicated instead of being removed.
- clients/Makefile.am, common/Makefile.am, configure.ac, m4/nut\_check\_socketlib.m4, m4/nut\_type\_socklen\_t.m4: Correct integration of WinSock library (by Arnaud Quette)

**2.2412 2010-11-05 Charles Lepple <[clepple+nut@gmail.com](mailto:clepple+nut@gmail.com)>**

- server/Makefile.am: Finish removing hard-coded paths to winsock2 library (as in [SVN:2674])

**2.2413 2010-11-04 Arnaud Quette <[arnaud.quette@free.fr](mailto:arnaud.quette@free.fr)>**

- configure.ac, drivers/Makefile.am, drivers/megatec.c, drivers/megatec\_usb.c: Add regex library check and flags

**2.2414 2010-11-04 Arjen de Korte <[adkorte-guest@alioth.debian.org](mailto:adkorte-guest@alioth.debian.org)>**

- configure.ac, drivers/Makefile.am, m4/nut\_check\_libusb.m4: Checking whether or not we should use the *regex* library... .. should be done for all USB connected devices (since we use this in the matcher function). In that case it is much cleaner to add this check in nut\_check\_libusb.m4. This also fixes the wrong use of AC\_SEARCH\_LIBS, that already adds *-lregex* to LIBS (which means all binaries are linked against this library).

**2.2415 2010-11-03 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- drivers/dstate.c, drivers/main.c: Make drivers run as service by default
- m4/nut\_type\_socklen\_t.m4: MinGW socklen detection (by Arnaud Quette)
- common/common.c, include/common.h, server/upsd.c: Factorization of service code

**2.2416 2010-10-29 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- server/upsd.c: Add Uninstall facility to upsd

**2.2417 2010-10-28 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- server/upsd.c: upsd behaves like a service by default now
- common/common.c, common/wincompat.c: Remove C\++ style comments
- common/common.c, common/wincompat.c, common/winevent.mc, include/common.h, include/wincompat.h: Map syslog to Windows's event log.

**2.2418 2010-10-21 Chetan Agarwal <[chetanagarwal-guest@alioth.debian.org](mailto:chetanagarwal-guest@alioth.debian.org)>**

- drivers/bcmxcp.c: No functional changes Removed redundant initialization for character buffer and replaced hardcoded value for sprintf with sizeof(buffer)

**2.2419 2010-10-20 Frederic Bohe <[fbohe-guest@alioth.debian.org](mailto:fbohe-guest@alioth.debian.org)>**

- drivers/dstate.c: Better handling of multiple connection on drivers
- server/sstate.c, server/upsd.c: Remove unneeded debug printf
- common/common.c: Remove hack from confpath function. You have to declare a NUT\_CONFPATH environment variable in your Windows settings
- common/wincompat.c, include/wincompat.h: Set again eol property to native
- common/inet\_aton.c, drivers/dstate.c, include/common.h, server/upsd.c: Fix errors appeared when merging from regular 2.4.3 to svn trunk
- drivers/Makefile.am: Remove hard coded path to libws2\_32
- clients/Makefile.am, common/Makefile.am, {clients ⇒ common}/wincompat.c, {clients ⇒ include}/wincompat.h, server/Makefile.am: Move wincompat.[ch] to common

**2.2420 2010-10-20 Chetan Agarwal <[chetanagarwal-guest@alioth.debian.org](mailto:chetanagarwal-guest@alioth.debian.org)>**

- drivers/bcmxcp.c: - Add Device Part number reading from config block. - fix a few typo errors in comments, - Change driver version to 0.25.
  - drivers/bcmxcp.h: define and use BCMXCP\_CONFIG\_BLOCK\_PART\_NUMBER constant ... for reading the Device Part Number from Config Block
  - docs/new-names.txt: Add *device.part* to list of supported variables
  - data/cmdvartab: Add description for new variable added - *device.part*
-

**2.2421 2010-10-20 Charles Lepple <clepple+nut@gmail.com>**

- clients/wincompat.c, clients/wincompat.h: Fix executable bits

**2.2422 2010-10-20 Arnaud Quette <arnaud.quette@free.fr>**

- clients/upsc.c, clients/upsclient.c, clients/upscmd.c, clients/upslog.c, clients/upsmon.c, clients/upsrw.c, clients/upssched.c, common/common.c, common/inet\_aton.c, common/wincompat.c, configure.ac, drivers/dstate.h, drivers/libusb0.c, drivers/libusb1.c, drivers/serial.h, drivers/usb-common.c, include/common.h, server/ssl.c, server/sstate.c, server/upsd.c, server/upsd.h, server/user.c: Rename DATADIR to NUT\_DATADIR to avoid conflict with MinGW objidl.h header

**2.2423 2010-10-18 Frederic Bohe <fbohe-guest@alioth.debian.org>**

- clients/wincompat.c, clients/wincompat.h: Set eol-style to native
  - clients/Makefile.am, clients/upsc.c, clients/upsclient.c, clients/upscmd.c, clients/upslog.c, clients/upsmon.c, clients/upsrw.c, clients/upssched.c, clients/wincompat.c, clients/wincompat.h, common/common.c, common/state.c, drivers/Makefile.am, drivers/apcsmart.h, drivers/bcmxcp\_usb.c, drivers/belkin.h, drivers/blazer\_usb.c, drivers/dstate.c, drivers/dstate.h, drivers/dummy-ups.c, drivers/libhid.c, drivers/libusb0.c, drivers/libusb1.c, drivers/main.c, drivers/main.h, drivers/megatec.c, drivers/megatec\_usb.c, drivers/mge-xml.c, drivers/netxml-ups.c, drivers/richcomm\_usb.c, drivers/serial.c, drivers/serial.h, drivers/upsdrvctl.c, drivers/usb-common.c, drivers/usbhid-ups.c, include/common.h, server/Makefile.am, server/conf.c, server/ssl.c, server/sstate.c, server/sstate.h, server/stype.h, server/upsd.c, server/upsd.h, server/upstype.h, server/user.c: Initial commit (preliminary investigation)
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