

# **Network UPS Tools Change Log**

NUT project community contributors

REVISION HISTORY			
NUMBER	DATE	DESCRIPTION	NAME
2.8.3.762 2.8.3.869-869+gc43606ce3	2025-08-04	Current release snapshot of Network UPS Tools (NUT).	
2.8.3	2025-04-07	Some changes to docs and recipes, libusbclient API and functionality. Updated NUT SEMVER definition and added scripting around it. Groundwork for vendor-defined status and INSTCMD buzzwords like "ECO". Fixed some regressions and added improvements for certain new device series.	JK
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

REVISION HISTORY			
NUMBER	DATE	DESCRIPTION	NAME
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
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

**REVISION HISTORY**

NUMBER	DATE	DESCRIPTION	NAME
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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## 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).

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### Note

This change log section represents git commits in range `v2.8.3..HEAD` (commits `e578d506e..c43606ce3`).

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### 2.1 2025-08-01 Jim Klimov <jimklimov+nut@gmail.com>

- `tools/nut-usbinfo.pl`: `find_usbdevs()`: skip files that are not `*.c` or `*.h` [#3030]
- `drivers/libusb0.c`, `drivers/libusb1.c`: `drivers/libusb{0,1}.c`: `nut_libusb_open()`: for libusb specifically, we have a Wiki page about Insufficient Permissions [#3041]
- `NEWS.adoc`, `common/common-nut_version.c`, `drivers/libusb0.c`, `drivers/libusb1.c`, `include/common.h`: `common/common-nut_version`, `include/common.h`, `drivers/libusb{0,1}.c`, `NEWS.adoc`: introduce `suggest_NDE_conflict()` [#477, #3040]
- `Makefile.am`: `check-parallel-builds`: ensure that we are in the `top_builddir` when starting operations relative to it [#3030] Be pedantic to work around some quirk in NetBSD 9.2 `bmake` essentially.
- `ci_build.sh`: `check-parallel-builds`: pass `CHECK_PARALLEL_BUILDS_REGEN=false` as a make argument also, not just `envvar` [#3030]
- `ci_build.sh`: `build_to_only_catch_errors_target()`: fix `"CI_PARMAKE_VERBOSITY=verbose"` logging handling

### 2.2 2025-07-31 Jim Klimov <jimklimov+nut@gmail.com>

- `Makefile.am`: `check-parallel-builds`: pre-clean before checking the source locations [#3033]
- `Makefile.am`: `check-parallel-builds`: for out-of-tree builds, check the source locations starting from the correct root [#3033]
- `Makefile.am`: `check-parallel-builds`: call `automake portably` - in a way detected by configure script [#3033]
- `Makefile.am`: `check-parallel-builds`: if called, `automake` must be in `top_srcdir` where `configure.ac` lives [#3033]
- `.circleci/config.yml`: drop explicit `"make check-parallel-builds"` [#3030] It is now invoked where applicable for scenarios with `BUILD_TYPE=default-all-errors*` and note it was not buildable as added anyway (earlier `ci_build.sh` wiped the work area).

### 2.3 2025-07-30 Jim Klimov <jimklimov+nut@gmail.com>

- `ci_build.sh`: restore `NEWS` and `README` (if needed) between loops of `default-all-errors` [#3030]
  - `ci_build.sh`: add a failsafe for CI via `NUT_BUILD_CAPS=check-parallel-builds=no` label [#3030]
  - `Makefile.am`: `spellcheck-quick/check-parallel-builds`: refactor `SET_PARMAKES_OPT()` code to be reusable [#3030]
  - `Makefile.am`: `check-parallel-builds`: fix suggested shell scriptlet to investigate failures [#3030] Notably, `MAKEFLAGS` may include the `"make"` options without the leading dash, or other values that did not have one originally. Better leave it as an environment variable and let the particular `"make"` program deal with it.
-

- ci\_build.sh: optionally call "make check-parallel-builds" in BUILD\_TYPE="default-all-errors\*" [#3030]
- Makefile.am: check-parallel-builds: allow CHECK\_PARALLEL\_BUILDS\_REGEN=false (to speed up runs where developer/CI did not change recipes anyway) [#3030]
- tools/nutconf/Makefile.am: libnutscan.la indirectly requires libcommonclient.la (for libupsclient-version.h) so bolt it into deps list [#3030]

## 2.4 2025-07-29 Jim Klimov <jimklimov+nut@gmail.com>

- docs/man/.gitignore, docs/man/Makefile.am: docs/man/Makefile.am: linkman-driver{,tool}-names.txt: use unique "\*.tmp.\$\$" filenames to fix parallel builds [#3030]
- scripts/upsdrvsvccctl/nut-driver-enumerator.sh.in, NEWS.adoc: fixed NDE to not consider "masked" systemd units as non-existent [#3033]
- NEWS.adoc: move voltronic-axpert to existing nutdrv\_qx section [#1407]

## 2.5 2025-07-28 Jim Klimov <jimklimov+nut@gmail.com>

- docs/man/phoenixcontact\_modbus.txt: clarify that new options can be set only once (via init) at this time [#2986]
- NEWS.adoc: clarify how new options for phoenixcontact\_modbus can be set [#2986]

## 2.6 2025-07-27 Jim Klimov <jimklimov+nut@gmail.com>

- tools/gitlog2version.sh: do not pollute stdout [#3030]
- tools/gitlog2version.sh, docs/nut-versioning.adoc: tack on current commit if known, even if we fall back to built-in version otherwise [#3030]
- .github/workflows/codeql.yml: drop attempts to describe git-derived version better [#3030]
- tools/gitlog2version.sh: if we fail to "discover a NUT\_VERSION\_GIT\_TRUNK" or "git describe", check and report if the current checkout is shallow [#3030] CI builds often do check out the built commit with minimal "depth" (often having just it), which is much faster, cheaper computationally and by traffic. This however precludes finding history intersections of current (single-commit) tree with other trees even if we fetch them.
- .github/workflows/codeql.yml: separate "make check-parallel-builds" from main build; troubleshoot gitlog2version [#3030]
- .circleci/config.yml, .github/workflows/codeql.yml, NEWS.adoc: .circleci/config.yml, .github/workflows/codeql.yml: invoke "make check-parallel-builds" [#3030]
- clients/Makefile.am, drivers/Makefile.am, server/Makefile.am, tests/Makefile.am, tools/nut-scanner/Makefile.am, tools/nut-conf/Makefile.am: \*/Makefile.am: spell out known build order between out-of-dir dependencies [follows up from PR #2825, highlights why issue #2584 better be solved]
- Makefile.am, NEWS.adoc: introduced a make check-parallel-builds recipe [follows up from PR #2825]
- drivers/snmp-ups.c: re-order includes (keep eatons together)
- data/driver.list.in: update entry for Kebo UPS-1000D (add langid\_fix and subdriver); add Tescom LEO Plus LCD 1500A which works with same config [#981]
- tools/nut-scanner/Makefile.am: ensure we only call NUT\_SCANNER\_DEPS and it has work to do only once [follows up from PR #2825] In practice we do call it as many times as there are listed dependency files, but it only generates them on the first run and quickly bails out later on. This should help avoid writing into same files in parallel, ending up with garbled or incomplete files when we want to use them.

## 2.7 2025-07-24 Jim Klimov <jimklimov+nut@gmail.com>

- docs/images/ci/jenkins-nut.css: new style in town with Jenkins LTS 2.516.1

## 2.8 2025-07-22 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/phoenixcontact\_modbus.c: fix typo in what is now a formatting string [#2986]
- drivers/phoenixcontact\_modbus.c, docs/man/phoenixcontact\_modbus.txt: fix tweaks according to nut-names, use dstate (so standard variable default.\* or override.\* settings) [#2986]
- drivers/phoenixcontact\_modbus.c: log FIXMEs for more use of NUT dstate overrides/defaults instead of addvar() tweaks
- drivers/phoenixcontact\_modbus.c, docs/man/phoenixcontact\_modbus.txt: fix according to nut-names: "(ups.)delay.shutdown" ⇒ "(battery.)energysave.delay" [#2986]
- drivers/phoenixcontact\_modbus.c: fix whitespace in comments [#2986]

## 2.9 2025-07-21 Jim Klimov <jimklimov+nut@gmail.com>

- configure.ac, docs/configure.txt: fix ASCIIDOC\_TEMPLATE\_LINKMANEXT\* with HTML URL query part [#3027] ... and a typo about quoting.
- configure.ac: define default ASCIIDOC\_TEMPLATE\_LINKMANEXT\* according to target\_os family (solarish, freebsd, openbsd; default=linux) [follow-up to #2797]
- configure.ac, docs/Makefile.am, docs/configure.txt, docs/man/Makefile.am: Support optional man page section rewrite also for linkmanext\* references [follow-up to #2797]
- NEWS.adoc, configure.ac, docs/.gitignore, docs/{asciidoc.conf ⇒ asciidoc.conf.in}, docs/configure.txt, docs/man/.gitignore, docs/man/{asciidoc.conf ⇒ asciidoc.conf.in}: Do not hard-code linux.die.net (and its man sections) into generated linkmanext\* that may vary by distro [follow-up to #2797]
- NEWS.adoc, docs/man/asciidoc.conf, docs/nut.dict: docs/man/asciidoc.conf, NEWS.adoc: fix generation of links to external manual pages [follow-up to #2797]

## 2.10 2025-07-18 Jim Klimov <jimklimov+nut@gmail.com>

- common/common.c: minimize\_formatting\_string(): debug-log about "cosmetic" chars at level 7 [#2956]
- drivers/nutdrv\_qx\_voltronic.c: voltronic\_mode(): word remaining alarms to be complete sentences [#2494]
- drivers/nutdrv\_qx\_voltronic.c: voltronic\_mode(): add some debug logging [#2494]
- docs/man/nutdrv\_qx.txt: fix quoting style from m4 to text
- drivers/nutdrv\_qx\_voltronic.c, NEWS.adoc: revise "vendor:voltronic:\*" buzzword setting; these modes are not alarm material [#2494]

## 2.11 2025-07-18 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>

- drivers/mge-hid.c: input.bypass.switch.on/off set flag quick update instead semi static
-

## 2.12 2025-07-17 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/mge-hid.c: `eaton_input_bypass_check_range()`: fix typo checking for "value==1" [#2956]
- drivers/usbhid-ups.c: `ups_alarm_set()`: ignore ECOMODE, we handle it in `ups_status_set()` [#2956] Avoid extra work and occasional log messages that: `str_add_unique_token`: skip token `vendor:default:ECO`: was already set
- drivers/mge-hid.c: `eaton_input_eco_mode_check_range()`: refine log output if we remain in ECO/non-ECO mode [#2956]
- drivers/mge-hid.c: `eaton_input_eco_mode_check_range()`: sanity-check that `value==1` [#2956]
- drivers/mge-hid.c: make "input.eco.switchable" a `HU_FLAG_QUICK_POLL` value [#2956] We want it evaluated on every quick-update loop, so that the correct buzzwords are always set (if device serves the feature). Also quick-update the bypass voltage and frequency, so we know relevant clues (keep semi-static settings as they were though).
- NEWS.adoc: NEWS.adoc, docs/nut.dict: summary mention for recent small PRs [#3019, #3021, #3022, #3023]
- drivers/mge-hid.c: convert "input.eco.switchable" definition from `HU_FLAG_SEMI_STATIC` to regular [#2956]
- drivers/mge-hid.c: move "input.eco.switchable" definition to end of `mge_hid2nut[]` table [#2956]
- Makefile.am: `install-as-root`: do not overly trust in `systemctl preset-all` It fails on `systemd 252` (known issue): Failed to preset all units: Unit `/run/systemd/transient/session-156053.scope` is transient or generated.

## 2.13 2025-07-16 Jim Klimov <jimklimov+nut@gmail.com>

- server/upsd.c: `check_command()`: try to print all command arguments (if debugging) [#3023]
- common/common.c: `compareprocname()`: Linux `/proc/X/exe` can end with " (deleted)" if the program was removed or replaced
- drivers/snmp-ups.c: `su_setOID()`: cast returned enum constants to int [#3017] Avoid error claimed by clang-20 et al: conditional expression between different enumeration types (*enum (unnamed at ./upshandler.h:25:1)* and *enum (unnamed at ./upshandler.h:34:1)*) [-Werror,-Wanon-enum-enum-conversion]
- docs/Makefile.am: `ChangeLog` ⇒ `ChangeLog.adoc`: avoid "\$<" as this is not a suffix rule

## 2.14 2025-07-15 Jim Klimov <jimklimov+nut@gmail.com>

- docs/Makefile.am: `ChangeLog` ⇒ `ChangeLog.adoc`: typo fix in fallback INPUT
- configure.ac, Makefile.am, docs/configure.txt, NEWS.adoc: introduce `configure` option to customize git log ending point [#3019]
- tools/gitlog2changelog.py.in: allow specifying end of commit range, report it in text Technically a step to multi-section changelogs, covering each release separately as a range between git tags, regardless of timestamp overlap (with much older prepared commits going into much newer release later on).
- tools/gitlog2changelog.py.in: typo in comment
- docs/Makefile.am: `ChangeLog` ⇒ `ChangeLog.adoc`: revise definition of INPUT Actually saw it with two tokens recently, for the text and `.prep-src-docs` touch-file
- docs/Makefile.am: when writing temporary outputs, make sure they are not empty before moving to final name (else delete and bail out)
- docs/Makefile.am: `.adoc` ⇒ `.adoc-parsed`: double-check that input file exists If a recipe iteration is written incorrectly, make can skip work on some rules (evaluating them as true without writing outputs we need)
- configure.ac, docs/.gitignore, docs/Makefile.am, docs/configure.txt, docs/{docinfo.xml.sh ⇒ docinfo.xml.sh.in}: docs/docinfo.xml.sh make it a template for `configure` script to generate and embed a `@GITLOG_START_POINT@` value to consider
- configure.ac, Makefile.am, docs/configure.txt, NEWS.adoc: introduce `configure` option to customize git log starting point

- ci\_build.sh: configure --disable-docs-changelog in developer iterations
- configure.ac, docs/Makefile.am, docs/configure.txt, NEWS.adoc, docs/nut.dict: introduce option to "configure --enable-docs-changelog" (or not)
- docs/ci-farm-lxc-setup.txt: update link to conflict-aware-ondemand-strategy-plugin

## 2.15 2025-07-14 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/mge-hid.c: fix back eaton\_input\_bypass\_mode\_on\_info[]; update comments; make use of errno=0/EINVAL
- docs/nut.dict: add "nuf" to dict [#3017, #2956]
- drivers/usbhid-ups.c, NEWS.adoc: hid\_ups\_walk(HU\_WALKMODE\_INIT): report if exactly one of fun/nuf is defined in a one-line table, and it would preclude reads/writes [#2956]
- docs/nut.dict: add "nuf" to dict [#3017, #2956]
- drivers/mge-hid.c: introduce eaton\_input\_buzzwordmode\_setvar\_nuf() [#2956]
- drivers/usbhid-ups.c, NEWS.adoc: add a way for fun/nuf methods to report EINVAL for unsupported arguments, and bail out [#3017] Made for progresing on PR #2956
- drivers/nutdrv\_qx.c, NEWS.adoc: add a way for item→preprocess() and qx\_process() methods to report EINVAL for unsupported arguments, and bail out [#3017]
- drivers/snmp-ups.c: su\_setOID(): refactor many elvises into one val\_practical [#3017]
- drivers/usbhid-ups.c, NEWS.adoc: add a way for fun/nuf methods to report EINVAL for unsupported arguments, and bail out [#3017] Made for progresing on PR #2956
- drivers/snmp-ups.c, NEWS.adoc: add a way for fun/nuf methods to report EINVAL for unsupported arguments, and bail out [#3017]
- drivers/snmp-ups.c: su\_setOID(): return *\*CONVERSION\_FAILED where applicable; use upslog\*\_RESULT()* in callers su\_setvar()/su\_getvar() for maintainability
- drivers/snmp-ups.c: su\_setOID(): rectify returns of STAT\_SET\_\* vs. STAT\_INSTCMD\_\* Be pedantically correct about these, even if they map to same numbers for logical names at the moment.
- drivers/upshandler.h: define loggers for CONVERSION\_FAILED, and generally for common RESULT [#2957]
- drivers/mge-hid.c: fix indentations (TAB vs space) to be consistent [#2956]
- NEWS.adoc, common/common.c: common/common.c: minimize\_formatting\_string(): do not loudly log complaints about known cosmetic formatting chars [#2450]
- common/common.c: minimize\_formatting\_string(): update comments [#2450]

## 2.16 2025-07-13 Axel Gembe <axel@gembe.net>

- docs/man/apc\_modbus.txt: apc\_modbus: Add another tested device model to the man page
- NEWS.adoc, drivers/apc\_modbus.c: apc\_modbus: Fix missing variables due to mismatching format string Calls to dstate\_setinfo were using a different format string in fmt\_dynamic than spcified in fmt\_reference. This causes the following variables to be missing: `` battery.runtime experimental.output.energy ups.timer.shutdown ups.timer.start ups.timer.reboot input.transfer.high input.transfer.low ups.delay.shutdown ups.delay.start ups.delay.reboot outlet.group.0.delay.shutdown outlet.group.0.delay.start outlet.group.0.delay.reboot outlet.group.1.delay.shutdown outlet.group.1.delay.start outlet.group.1.delay.reboot outlet.group.2.delay.shutdown outlet.group.2.delay.start outlet.group.2.delay.reboot outlet.group.3.delay.shutdown outlet.group.3.delay.start outlet.group.3.delay.reboot `` Since #2450 this caused this or similar error messages on our integer values: `` [D1] validate\_formatting\_string: dynamic formatting string %u is not equivalent to expected %lu `` This in turn caused the variable to not exist and later calls to dstate\_setflags to output: `` apc\_modbus: dstate\_setflags: base variable (battery.runtime) does not exist `` We fix this by using the correct format string.

**2.17 2025-07-10 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/snmp-ups.c, NEWS.adoc: fix debug-logging of skipping SU\_FLAG\_STATIC entries [#3011]
- drivers/apc-mib.c, NEWS.adoc: fix "ups.test.date" from SU\_FLAG\_STATIC to SU\_FLAG\_SEMI\_STATIC [#3011]

**2.18 2025-07-09 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc: mention both APC BVKxxxM2 and BKxxxM2-CH in same fix for usbhid-ups

**2.19 2025-07-07 Jim Klimov <jimklimov+nut@gmail.com>**

- scripts/systemd/nutshutdown.in, NEWS.adoc: bail out if MODE=none explicitly [#2935]
- drivers/mge-hid.c: refactor old (pegasus) and new (ECO/ESS) mapping tables with fun/nuf methods [#2956]
- drivers/mge-hid.c: comment which info\_lkp\_t[] tables are in fact wrong examples of mapping function usage [#2956]
- docs/man/phoenixcontact\_modbus.txt: reconcile config setting names with strings used in the driver [#2986]
- docs/man/phoenixcontact\_modbus.txt: align shutdown variables descriptions with comments in code [#2986]
- docs/man/nutupsdrv.txt: document `override.*` or `default.*` names for `var=val` settings
- docs/man/phoenixcontact\_modbus.txt: wrap long lines; anticipate renaming/obsolescence of some driver-specific settings [#2986]
- NEWS.adoc: document recent changes to start-up messages and loop flushing in upsmon [#3003]
- clients/upsmon.c: report in debug-log which SHUTDOWNCMD/NOTIFYCMD would be used (and if no NOTIFYCMD was set) [#3003]
- clients/upsmon.c: fflush() at end of each main loop cycle, just in case
- clients/upsmon.c: make "Warning: no shutdown command defined" visible when the daemon starts Being a printf() to stdout, it got buffered and often only appeared on buffer flush when the daemon exited.
- NEWS.adoc, data/driver.list.in, docs/man/usbhid-ups.txt, docs/nut.dict, drivers/usbhid-ups.c: drivers/usbhid-ups.c: handle also APC BKnnnM2[\_-]CH tweaks for `lrb_log_delay_without_calibrating/onlinedischarge_calibration` [#3006, #2347] Update docs, data/driver.list.in suggestions; refactor the if-clause to detect if the tweak applies to the device being handled.

**2.20 2025-07-04 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc: note further ECO mode updates in mge-hid [#2956]
- NEWS.adoc: clarify message for bcmxcp fix [#3002]
- NEWS.adoc: re-order ddriver updates alphabetically

**2.21 2025-07-03 desertwitch <24509509+desertwitch@users.noreply.github.com>**

- NEWS.adoc: add bcmxcp fixes [#3002]
- drivers/bcmxcp.c: fix latched on to RB alarm

**2.22 2025-07-03 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/packager-guide.txt: suggest a nut-common package for shared stuff
  - drivers/powervar\_cx.c: remove space before parenthesis after status\_set() to simplify review for issue [#2708]
  - drivers/pijuice.c, NEWS.adoc: revise use of status\_set() [#2708]
-

## 2.23 2025-06-25 Jim Klimov <jimklimov+nut@gmail.com>

- NEWS.adoc: announce updates to phoenixcontact\_modbus [#2986]
- docs/man/phoenixcontact\_modbus.txt: fix asciidoc markup for man page [#2986] This is not directly a troff file
- drivers/phoenixcontact\_modbus.c: fix CI complaints [#2986] \* static methods \* declarations before code \* mismatches of int type vs printf formatting string (hex)
- docs/man/phoenixcontact\_modbus.txt, docs/nut.dict: update authors/contributors list [#2986]
- drivers/phoenixcontact\_modbus.c: fix author/contributor list [#2986]
- drivers/phoenixcontact\_modbus.c: fix back broken whitespace [#2986]
- drivers/powervar\_cx.c, drivers/powervar\_cx\_ser.c, drivers/powervar\_cx\_usb.c: drivers/powervar\_cx\*: fix more formatting string vs. int type mismatches [#2988]

## 2.24 2025-06-25 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>

- drivers/mge-hid.c: try return int instead double to check compiler issue
- drivers/mge-hid.c: add some more debug

## 2.25 2025-06-24 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/powervar\_cx.c: instcmd(): fix int type of ShowTime [#2988]
- drivers/powervar\_cx.c, drivers/powervar\_cx.h: drivers/powervar\_cx\*: fix int type of GetSubstringPosition() [#2988]
- drivers/powervar\_cx.c, drivers/powervar\_cx.h, drivers/powervar\_cx\_usb.c: drivers/powervar\_cx\*: fix visibility of some declarations [#2988]
- drivers/powervar\_cx.c: prefer snprintf() over strncpy() [#2988]
- drivers/powervar\_cx.c, drivers/powervar\_cx\_ser.c, drivers/powervar\_cx\_usb.c: drivers/powervar\_cx\*.c: use same style for space after comma [#2988]
- drivers/powervar\_cx.c, drivers/powervar\_cx\_usb.c: drivers/powervar\_cx\*.c: use same style for space after "if" [#2988]
- drivers/powervar\_cx.c: avoid unbound strcpy() and strcat() [#2988]
- drivers/Makefile.am, drivers/powervar\_cx.c, drivers/powervar\_cx.h, drivers/powervar\_cx\_ser.c, drivers/powervar\_cx\_usb.c: powervar\_cx\_{ser,usb}: split helper code powervar\_cx.{c,h} into a true C header and compiled C source (do not "include" the latter) [#2988]
- NEWS.adoc, docs/man/Makefile.am, docs/man/powervar\_cx\_ser.txt, docs/man/{powervar-cx.txt ⇒ powervar\_cx\_usb.txt}, drivers/Makefile.am, drivers/{powervar-cx.h ⇒ powervar\_cx.h}, drivers/{powervar-cs.c ⇒ powervar\_cx\_ser.c}, drivers/{powervar-cu.c ⇒ powervar\_cx\_usb.c}: powervar\_cx\_{ser,usb}: rename sources, separate man pages [#2988]
- drivers/powervar-cu.c, drivers/powervar-cx.h: drivers/powervar-c\*: avoid sub-standard "uint" type [#2988]
- drivers/powervar-cu.c: SendRequest(): revise nulling of outbuff[], add sanity-checks and comment about them [#2988]
- drivers/powervar-cu.c: fix upsdebugx(verbosity) vs upslogx(facility) [#2988]
- drivers/powervar-cu.c: SendRequest(), PowervarGetResponse(): align int vars with print format and return types [#2988]

## 2.26 2025-06-24 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>

- data/cmdvartab, docs/nut-names.txt, drivers/mge-hid.c: rename enable/diasble to start/stop
-



**2.27 2025-06-24 Bill Elliot <bill@wreassoc.com>**

- drivers/powervar\_cx.c, drivers/powervar\_cx.h, drivers/powervar\_cx\_usb.c: Add comment(s) in source about compiling common driver file. Add FIXME note.

**2.28 2025-06-23 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/man/powervar-cx.txt: fix NAME section to generate the alias man pages [#2988] NOTE: man aliases are special reference files, so the target powervar-cx.8 file must be delivered wherever \*-cs and/or \*-cu are the one(s) really needed.

**2.29 2025-06-20 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/powervar-cu.c: use NUT standard population of regex\_array for USB config parameters [#2988]
- drivers/powervar-cu.c: fix int size mismatch [#2988] Code scanning / CodeQL: Comparison of narrow type with wide type in loop condition: Comparison between [i](1) of type uint8\_t and [ReqLen](2) of wider type size\_t.
- drivers/powervar-cu.c, drivers/powervar-cx.h: drivers/powervar-c\*: fix clang complaints about method visibility/declaration [#2988]
- docs/man/Makefile.am: neuter powervar-c{s,u}.html (similar to other fictional HTML aliases) for now [#2988]
- drivers/powervar-cu.c, drivers/powervar-cx.h: drivers/powervar-c\*: slightly revise C markup (indentations, declarations on top) [#2988]
- UPGRADING.adoc: note packaging of powervar-cX man pages [#2988]
- docs/man/Makefile.am: fix recipes to nominally deliver the powervar-c[us] pages, aliased from one powervar-cx [#2988]
- docs/man/powervar-cx.txt: fix asciidoc markup; clarify that there are two powervar\* drivers (USB/Serial) at this time [#2988]
- NEWS.adoc: introduced powervar-cs and powervar-cu drivers [#2988]
- data/driver.list.in: update top comment with formatting requirements for markup of this file [#2988]
- data/driver.list.in: parsing scripts expect single-TAB separation of fields [#2988]

**2.30 2025-06-19 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/Makefile.am: specify VPATH for sub-makes doing spellcheck
- docs/Makefile.am, docs/man/Makefile.am, NEWS.adoc: only SED text source files for \*-prepped (man page section, nut-website, etc.) rewrites [#2989]
- clients/upsmon.c: when warning about no SHUTDOWNCMD, check about no MINSUPPLIES too (maybe not a problem)
- scripts/systemd/nutshutdown.in: update notes on purpose, location and likely variations
- conf/upsmon.conf.sample.in: update notes on Windows SHUTDOWNCMD
- conf/upsmon.conf.sample.in: update notes on semi-required settings

**2.31 2025-06-16 haul <ulfathasangarayev@gmail.com>**

- docs/man/phoenixcontact\_modbus.txt, drivers/phoenixcontact\_modbus.c: Fix issues from previous PR review
  - Bumped internal version to 0.09 (two-digit format) - Replaced single-line // comments with /\* ... \*/ block comments - Added missing variable descriptions to the man page - Preserved original authors in metadata - Standardized config variable names to align with nut-names.txt where possible - Declared all variables at top of scope as per C89 style Feedback originally provided by @jimklimov on PR #2986 (superseded by this commit)



**2.32 2025-06-16 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-hid.c: try again in one func eaton\_input\_eco\_mode\_auto\_on\_off\_info()
- drivers/mge-hid.c: Fix value ("1") in nuf
- drivers/mge-hid.c: for test value after compile

**2.33 2025-06-15 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-hid.c: separate on / off as only first command is used in this case

**2.34 2025-06-13 haul <haul@tgw-group.com>**

- drivers/phoenixcontact\_modbus.c: Add support for shutdown variables, mode selector, PC reset timing, and battery switch threshold - Introduced new variables to the phoenixcontact\_modbus driver especially for QUINTS 4 USB: - shutdown variables - mode selector 9 = PC\_MODE - PC reset delay after main power recovers - automatic switch to battery mode if main power is below or above a defined threshold.

**2.35 2025-06-12 Jim Klimov <jimklimov@gmail.com>**

- docs/man/nut.txt, docs/man/index.txt: introduce "ifndef::included-skip-title[]" toggle [[nut-website#61](#)]

**2.36 2025-06-12 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-hid.c: return on/off
- drivers/mge-hid.c: another typo
- drivers/mge-hid.c: double, small fixes
- drivers/mge-hid.c: convert from two functions to one eaton\_input\_eco\_mode\_auto\_on\_off\_fun/[nuf] ()
- drivers/mge-hid.c: return double (0.0 and 0.1) instead of named double

**2.37 2025-06-11 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/apc\_modbus.c, NEWS.adoc: bump version, add summary [[#2982](#)]
- docs/man/pijuice.txt, docs/nut.dict: some more nuances [[#2985](#)]
- lib/libupsclient-config.in: single-quote ConfigFlags value
- lib/libupsclient-config.in: define commonly customized dirs so ConfigFlags do not emit warnings when configure script parses the template
- configure.ac: nut-common-tmpfiles.conf: own PIDPATH as root if not overlapping with unprivileged paths
- docs/man/pijuice.txt, docs/nut.dict: update with nuances of PiJuice HAT UPS setup from practice
- Makefile.am: install-as-root: fix for new installs with systemd

**2.38 2025-06-11 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-hid.c: double fix
  - drivers/mge-hid.c: small fixes
  - drivers/mge-hid.c: added dummy and Conversion back of eaton\_input\_eco\_mode\_auto\_off[on]\_fun()
-

**2.39 2025-06-10 Hector Martin <marcan@marcan.st>**

- drivers/apc\_modbus.c: Fix interframe delay The delay is supposed to be from **end** of a frame to **start** of the next. Also fix the type used for timestamp calculations (useconds\_t is not big enough and overflows). Fixes: [#2609](#)

**2.40 2025-06-08 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/nutdrv\_qx\_megatec.c: specify that we accept 38\+ bytes as answer for "I" query, and any length after byte 28 till end of reply is ups.firmware [[#2980](#)] Also finally bump the subdriver version for this PR
- NEWS.adoc, UPGRADING.adoc: note the 38 vs 39 byte expected response to "I" in nutdrv\_qx::megatec subdriver [[#2980](#)]

**2.41 2025-06-06 Bill Elliot <bill@wreassoc.com>**

- docs/acknowledgements.txt, docs/man/powervar-cx.txt, docs/nut.dict: Text and NUT.dict tweaks to pass distcheck-light

**2.42 2025-06-05 Bill Elliot <bill@wreassoc.com>**

- docs/man/Makefile.am, docs/man/powervar-cx.txt: Man page fixes. Crossing T's and dotting I's.
- docs/acknowledgements.txt: Fix web link in, and add support note to, acknowledgements.txt
- drivers/powervar-cs.c, drivers/powervar-cu.c: Change versions from 0.80 to 1.00 to prepare for release.

**2.43 2025-06-04 gksmsk <90905316+gksmsk@users.noreply.github.com>**

- drivers/nutdrv\_qx\_megatec.c: Update nutdrv\_qx\_megatec.c Added a parameter battery.runtime

**2.44 2025-06-04 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac, docs/configure.txt: suggest a --with-drvpath that is not bindir but rather libexecdir
- NEWS.adoc: Updated megatec protocol for more detailed responses to I query [[#2980](#)]
- drivers/nutdrv\_qx\_megatec.c: revise comments for "I" query updates
- docs/man/nut.txt: reword coupling of upsmon with upssched
- docs/man/huawei-ups2000.txt: fix title
- docs/man/clone-outlet.txt, docs/man/clone.txt, docs/man/dummy-ups.txt, docs/man/failover.txt, docs/man/nut.txt, docs/man/trip-plite\_usb.txt: docs/man/\*: fix man page section references for upsc/upscmd/upsw/NUT-Monitor/upsmon/upssched (1 ⇒ 8)

**2.45 2025-06-03 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc, UPGRADING.adoc: report recent documentation/recipe improvements [[#2976](#), [#2946](#)]
  - docs/nut-versioning.adoc: version-related code moved from common.c to common-nut\_version.c [[#2913](#), [#2097](#)] ... to reduce the rebuild/relink scope.
  - docs/man/.gitignore, docs/man/Makefile.am, docs/man/index.txt, docs/nut.dict: docs/man/index.txt, docs/man/Makefile.am, docs/man/.gitignore: report the effect of DOC\_INSTALL\_SELECTED\_MANS\_PROGS\_BUILT on delivered docs and indexed man pages
-

## 2.46 2025-06-02 Jim Klimov <jimklimov+nut@gmail.com>

- docs/man/Makefile.am: linkman-\*.txt: depend on Makefile after all (adapt to varying configure choices)
- docs/man/Makefile.am: trace GENERATE-LINKMAN events during build
- docs/man/Makefile.am: actually honour DOC\_INSTALL\_SELECTED\_MANS\_BUILTPROGS toggle for linkman\*.txt generation [nut-website#60] Probably a lot more can be enhanced later, to also consider this in delivery of HTML MAN page renders, or finer-grained selections for even more optional drivers (nhs\_ser on linux), clients (Python UI), development-only tools (like sockdebug), or platform-specific progs (nut.exe), etc.
- Makefile.am, docs/configure.txt, docs/maintainer-guide.txt: suggest or ensure `configure --enable-docs-man-for-progs` for dist/distcheck builds [nut-website#60]
- ci\_build.sh: if we end up building and/or installing documentation, do parse all files (even if we do not build some programs here) [nut-website#60]
- configure.ac, docs/configure.txt, docs/nut.dict: configure.ac, docs/configure.txt: convert to use of separate option `--enable-docs-man-for-progs-built-only=<yes\|no>` [nut-website#60]
- configure.ac, docs/configure.txt: introduce `--with-docs=(all=)mans-builtprogs` vs. `mans-all` [nut-website#60]
- docs/man/Makefile.am, docs/man/.gitignore: refactor generation of linkman-\*.txt to pick up new driver lists in persistent NUT building workspaces [nut-website#60]
- docs/man/Makefile.am: linkman-\*-names.txt: re-generate if the Makefile.am changes [nut-website#60]

## 2.47 2025-05-30 Jim Klimov <jimklimov+nut@gmail.com>

- ci\_build.sh: default-all-errors: report count of SUCCEEDED and FAILED builds
- Makefile.am, NEWS.adoc: check-files-quick: only spellcheck-quick by default if we `configure --enable-spellcheck`
- configure.ac: NUT\_REPORT\_FEATURE(WITH\_SPELLCHECK), not just AM\_CONDITIONAL() it quietly
- conf/upsmon.conf.sample.in, docs/man/upsmon.conf.txt, docs/man/usbhid-ups.txt: mention that there are different "POLL-FREQ" settings between upsmon and some drivers [#2974]

## 2.48 2025-05-28 Sebastian Kuttig <sebastian.kuttig@gmail.com>

- drivers/failover.c, drivers/failover.h: drivers/failover.{c,h}: make UPS priorities more readable in code
- drivers/failover.c: improve guarding of `ups→status` against NULL dereference Adds checks to ensure `ups→status` is not NULL before use, preventing a possible NULL pointer dereference.
- drivers/failover.c, drivers/failover.h: drivers/failover.{c,h}: store runtimes in UPS struct These changes avoid constant lookups in the variable table for better performance.
- drivers/failover.c: minor improvements to order and debug levels
- docs/man/failover.txt, docs/nut.dict: introduce checkruntime argument
- drivers/failover.c, drivers/failover.h: drivers/failover.{c,h}: introduce checkruntime argument
- tests/nut-driver-enumerator-test.sh: reflect recent enumerator changes in test expectations [#2962]
- docs/man/failover.txt, drivers/failover.c, drivers/failover.h: drivers/failover.{c,h}, docs/man/failover.txt: use `_sockfn()` for one-shot connections This change removes the dependency on splitting socket names into UPS and driver names. We now rely on the user to provide valid sockets: if it connects, it connects. This enables the use of full paths in the port argument also, improving flexibility and enhancing scriptability.

**2.49 2025-05-28 Jim Klimov <jimklimov+nut@gmail.com>**

- ci\_build.sh, NEWS.adoc: default-all-errors: refactor to use of a common BUILDSTODO\_LIST with one processing loop
- ci\_build.sh: default-all-errors: report why we list e.g. 8 scenarios and plan 7 runs (due to unmapped)
- ci\_build.sh: default-all-errors: refactor BUILDSTODO\_(SSL|USB|UNMAPPED) determination as size of bash array, not via expr maths
- ci\_build.sh: default-all-errors: first pass conversion of NUT\_(USB|SSL|UNMAPPED)\_VARIANTS from strings to bash arrays
- ci\_build.sh: default-all-errors: refactor FAILED/SUCCEEDED tracking as bash arrays
- ci\_build.sh: default-all-errors: first steps to separate this BUILD\_TYPE into "quick" and "exhaustive" variants
- docs/man/nut.txt, docs/man/index.txt: do not reference nut(7) when including the man page index for rendering the page itself [#2945]
- docs/man/nut.txt: rephrase NDE text
- docs/man/nut.txt: fix "notable clients" bullet-list rendering
- docs/man/nut-driver-enumerator.txt: update intro, mention driver-on-driver dependencies [#2962]
- NEWS.adoc: mention NDE change to track inter-driver dependency [#2962]
- NEWS.adoc: revise a few recent fixes

**2.50 2025-05-27 Sebastian Kuttig <sebastian.kuttig@gmail.com>**

- drivers/dummy-ups.c: make upsdv\_cleanup() conditional on actual allocs, not mode
- drivers/dummy-ups.c: free ctx in upsdv\_cleanup() whenever allocated
- drivers/main.c: free temporary buffer in splitxarg()

**2.51 2025-05-26 Sebastian Kuttig <sebastian.kuttig@gmail.com>**

- drivers/failover.c: use str\_to\_int() also in instcmd()
- drivers/failover.c: make csv\_arg\_to\_array() more reusable
- drivers/failover.c: remove magic -1 from str\_arg\_to\_int(), use INT\_MIN/MAX instead
- drivers/failover.c: safer string to numeric conversions, improved argument handling

**2.52 2025-05-26 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc: revise announcement of upsdvquery API updates [#2969]
  - Link to PR, since we already have one shared by the different highlighted achievements \* Revise style to be same as in other lists
  - scripts/upsdrvsvctl/nut-driver-enumerator.sh.in: report if other device uses unexpected driver [#2962]
  - m4/nut\_check\_libnss.m4: add Mozilla MPS headers to "-isystem" bunch (CLANG/GCC builds)
  - Jenkinsfile-dynamatrix: use same naming style (no parenthesis around C/C++ std version)
  - docs/man/netxml-ups.txt, docs/man/snmp-ups.txt: fix title casing
-

- docs/man/skel.txt, docs/man/tripplite\_usb.txt, docs/man/ups.conf.txt, docs/security.txt: docs/\*: fix remaining links to man pages of external tools
- docs/man/bestups.txt, docs/man/upsd.txt, docs/man/upsmon.txt, docs/man/upssched.conf.txt, docs/man/upsset.cgi.txt: docs/-man/\*: fix linkman references to conf-file man pages (default section 5 not 8)
- docs/man/nut.txt, docs/man/upsmon.conf.txt, docs/man/upsmon.txt, docs/nut.dict: Update upsmon(.conf) pages regarding SHUTDOWNCMD and root [#2970] Closes: #2970
- docs/documentation.txt: refer to docs/man/nut.html from rendered docs [#2950]
- docs/man/Makefile.am: fix publication of nut.html on nut-website [#2950]
- docs/man/index.txt: publish nut(7) [#2950]

### 2.53 2025-05-24 Sebastian Kuttig <sebastian.kuttig@gmail.com>

- drivers/upsdrvquery.c: drop redundant parentheses [#2963]
- drivers/upsdrvquery.c: consistent guarding of \_read\_timeout() ret cast [#2963] The value of ret never exceeds the size of conn→buf, which is defined as LARGEBUF. However, defensive guarding against exceeding the buffer size was already in place for upsdebug\_hex(), so make upsdebugx() call consistent with it.
- drivers/upsdrvquery.c: cast \_read\_timeout() ret directly to int [#2963] The value of ret never exceeds the size of conn→buf, which is defined as LARGEBUF. A direct cast to int is safe in this context and avoids tautological comparison warnings on some platforms.
- drivers/upsdrvquery.c: make \_restore\_broadcast() return values consistent with \_prepare() A caller does not know about the underlying \_write() call and should not care about the number of bytes written. Return -1 or 1 consistently, as already done the same in \_prepare().
- NEWS.adoc: announce upsdrvquery API updates
- drivers/upsdrvquery.c, drivers/upsdrvquery.h: drivers/upsdrvquery.{c,h}: add \_restore\_broadcast(), call after \_oneshot\_conn() (best-effort) The \_oneshot\_conn() function does not own the connection, so it should make a best-effort attempt to restore the connection chatter (re-enabling broadcast) before returning. This ensures the caller receives the connection back in a reasonably consistent state.
- drivers/upsdrvquery.c: revise ownership of connections in \_prepare and \_request
- docs/man/failover.txt: fix incompatible characters
- drivers/Makefile.am: add failover.h for dists

### 2.54 2025-05-23 Sebastian Kuttig <sebastian.kuttig@gmail.com>

- drivers/upsdrvquery.c, drivers/upsdrvquery.h: drivers/upsdrvquery.{c,h}: revise ownership and freeing of one-shot connections
  - drivers/upsdrvquery.c, drivers/upsdrvquery.h: drivers/upsdrvquery.{c,h}: new oneshot functions, refactor existing without breaking API
  - NEWS.adoc, docs/nut.dict: introduce upsdrvquery changes
  - docs/man/failover.txt: add 3rd party tool use case for rationale
  - docs/man/failover.txt: add limitations
  - docs/man/failover.txt: add note to factor in network or lock-picking delays for inittime
  - docs/man/failover.txt: make hyphens consistent
  - drivers/failover.c: remove progname from non fatal log message
-

- docs/man/failover.txt: polish documentation and add rationale
- drivers/failover.c: safeguard ups\_promote\_primary against NULL or double promotion
- drivers/failover.c: show truncation content at end of log message
- drivers/failover.c: remove redundant \_init() calls for status/alarm
- drivers/failover.c: do not fatalx on no connectable drivers, keep trying instead
- drivers/failover.c, drivers/failover.h: drivers/failover.{c,h}: introduce failover.h for defines, typedefs
- drivers/failover.c: use enum for priorities
- drivers/failover.c: use NUT\_STRARG helper for null checks in various places

## 2.55 2025-05-23 Jim Klimov <jimklimov+nut@gmail.com>

- docs/config-notes.txt: fix reference to Augeas chapter in developer-guide [#2968]
- docs/man/nut\_usb\_addvars.txt: clarify the optionality and dangers of bus/busport/device settings [#2447]

## 2.56 2025-05-22 Sebastian Kuttig <sebastian.kuttig@gmail.com>

- drivers/failover.c: reword shutdown to be more clear

## 2.57 2025-05-22 Jim Klimov <jimklimov+nut@gmail.com>

- scripts/upsdrvsvct/nut-driver-enumerator.sh.in: add support for "drivers=..." media type for dependencies, and failover driver using that [#2962]
- docs/nut.dict: add "resizing"
- Jenkinsfile-dynamatrix: extend "GNU C89/C\+\+98 ... with GCC" (BUILD\_WARNFATAL=yes BUILD\_WARNOPT=auto) to also cover Strict C in all CI runs Note: this differs from "Strict ANSI C" builds done in fightwarn branches, those try "minimal" and "hard" BUILD\_WARNOPT types.
- Jenkinsfile-dynamatrix: "GNU C99/C++11+" and "GNU C89/C\+\+98 ... with GCC" should nowadays be BUILD\_WARNFATAL= when BUILD\_WARNOPT=auto
- Jenkinsfile-dynamatrix: "A build with all driver types...for other C/C\+\+ revisions" - disable C99/C\+\+98 checked as main revision
- Jenkinsfile-dynamatrix: update build scenario names to reflect warnings levels and standard versions
- tools/nut-scanner/nut-scanner.c, drivers/mge-hid.c, drivers/hwmon\_ina219.c: fix source markup to remain compatible with C89 syntax
- NEWS.adoc: document fixes for adaptive varargs sizing [#2963]
- common/common.c: fix typo in comment

## 2.58 2025-05-22 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>

- drivers/mge-hid.c: upsdebugx in bypass and ecomode functions updated with %s: and func for easy debug later
-

**2.59 2025-05-20 Sebastian Kuttig <sebastian.kuttig@gmail.com>**

- drivers/upsdrvquery.c: safer comparison for printable\_len [#2963]
- include/common.h: do not assume va\_copy() to be a macro on all systems [#2963]
- configure.ac: more portable va\_copy() checks [#2963]
- common/common.c: fix comment [#2963]
- drivers/upsdrvquery.c: fix comment [#2963]
- drivers/upsdrvquery.c: revise signed/unsigned comparison, account for ret < 0 [#2963]
- common/common.c: condense declarations and comments for va\_copy() [#2963]
- common/common.c, configure.ac, include/common.h: configure.ac, common/common.{c,h}: define va\_copy with \_\_va\_copy where needed/available [#2963]
- drivers/upsdrvquery.c: fix assumption about ret [#2963]
- drivers/upsdrvquery.c: account for non-null-terminated buffers [#2948]
- common/common.c: only upsize buffer in vupslog() if va copying is supported [#2948]
- configure.ac: test for va\_copy and \_\_va\_copy

**2.60 2025-05-19 Sebastian Kuttig <sebastian.kuttig@gmail.com>**

- drivers/failover.c: make defensive freeing consistent throughout the file
- drivers/failover.c: preserve which port value failed the argument parsing process
- drivers/failover.c: clean dstate after fsdmode 0, remove now freed var from exit debug
- drivers/failover.c: free parse\_port\_argument() tmp on premature exit [#2962]
- drivers/failover.c: add shutdown non-handling
- drivers/failover.c, NEWS.adoc: fixes for compiler warnings, add PR number to news entry [#2962]
- NEWS.adoc: introduce failover driver
- server/netget.c: rewrite upstream prefix for proxying drivers
- docs/man/Makefile.am, docs/man/failover.txt, docs/nut.dict, drivers/Makefile.am, drivers/failover.c: drivers/, docs/: introduce failover driver

**2.61 2025-05-18 Jim Klimov <jimklimov+nut@gmail.com>**

- Makefile.am: EXTRA\_DIST ci\_build.sh along with ci\_build.adoc
- Makefile.am: Revert "Makefile.am: as long as we do not tarball ci\_build.sh, do not deliver its doc either" This reverts commit 7a2e5d771c57f5768ced35e5d2994ed9f214a491: the doc is part of qa-guide. Makes more sense to also dist the script instead.

**2.62 2025-05-16 Jim Klimov <jimklimov+nut@gmail.com>**

- m4/ax\_c\_pragmas.m4: AX\_C\_PRINTF\_STRING\_NULL: detect also if gcc/clang would refuse printf("%s",NULL) if warnings are enabled (so NUT\_STRARG must be enabled if auto)
  - Makefile.am: as long as we do not tarball ci\_build.sh, do not deliver its doc either
  - ci\_build.sh: default-all-errors: if CI\_FAILFAST is triggered in SSL/USB loops, do not go for NUT\_UNMAPPED\_VARIANT either
  - drivers/dstate.c: sock\_fail(): suggest more ways to "ps\lgrep" [#2959]
-



### 2.63 2025-05-16 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>

- data/cmdvartab, docs/nut-names.txt, drivers/mge-hid.c: rename to `experimental.bypass.ecomode.start[stop]` from `experimental.ecomode.start[stop].auto`

### 2.64 2025-05-15 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/solis.c: cast NULL as "char\*" when sending it to print
- drivers/dstate.c, NEWS.adoc: `sock_fail()`: suggest things to try if a (maybe non-socket) filesystem object already exists
- drivers/dstate.c: `sock_fail()`: limit the impact of failed `getpwuid()` when reporting the problem
- NEWS.adoc, drivers/adelsystem\_cbi.c, drivers/all175.c, drivers/apc\_modbus.c, drivers/apcsmart-old.c, drivers/apcsmart.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.c, drivers/dummy-ups.c, drivers/etapro.c, drivers/everups.c, drivers/gamatronic.c, drivers/generic\_modbus.c, drivers/huawei-ups2000.c, drivers/isbmex.c, drivers/liebert-esp2.c, drivers/liebert-gxe.c, drivers/macosex-ups.c, drivers/main.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\_hashx.c, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx\_voltronic.c, drivers/nutdrv\_siemens\_sitop.c, drivers/oneac.c, drivers/optiups.c, drivers/pijuice.c, drivers/powercom.c, drivers/powerman-pdu.c, drivers/powerp-bin.c, drivers/powerp-txt.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/solis.c, drivers/triplite.c, drivers/triplite\_usb.c, drivers/triplitesu.c, drivers/upscore2.c, drivers/usbhid-ups.c, drivers/victronups.c: drivers/.c, NEWS.adoc: **revise logging of instcmd() where upslog\_INSTCMD\_POWERSTATE() macros shine**
- drivers/upshandler.h: introduce `upslog_INSTCMD_POWERSTATE*()` macros and `LOG_INSTCMD_POWERSTATE` level
- clients/upsclient.c: avoid using `upslog*()` methods with numeric log level instead of a syslog macro
- drivers/powerman-pdu.c, drivers/snmp-ups.c, drivers/triplite\_usb.c, drivers/usbhid-ups.c, drivers/ve-direct.c: drivers/: **avoid using upslog()** methods with numeric log level instead of a syslog macro
- drivers/dummy-ups.c: `setvar()`: update a FIXME comment

### 2.65 2025-05-14 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/adelsystem\_cbi.c, drivers/all175.c, drivers/apc\_modbus.c, drivers/apcsmart-old.c, drivers/apcsmart.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/blazer\_ser.c, drivers/blazer\_usb.c, drivers/clone.c, drivers/dstate.c, drivers/dummy-ups.c, drivers/etapro.c, drivers/everups.c, drivers/gamatronic.c, drivers/generic\_modbus.c, drivers/huawei-ups2000.c, drivers/isbmex.c, drivers/ivtsd.c, drivers/liebert-esp2.c, drivers/liebert-gxe.c, drivers/macosex-ups.c, drivers/main.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\_hashx.c, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx\_blazer-common.c, drivers/nutdrv\_siemens\_sitop.c, drivers/oneac.c, drivers/optiups.c, drivers/pijuice.c, drivers/powercom.c, drivers/powerman-pdu.c, drivers/powerp-bin.c, drivers/powerp-txt.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/solis.c, drivers/triplite.c, drivers/triplite\_usb.c, drivers/triplitesu.c, drivers/upscore2.c, drivers/usbhid-ups.c, drivers/ve-direct.c, drivers/victronups.c: drivers/\*:c: revise logging of `instcmd()` and `setvar()` or their equivalents to be consistent across all drivers [WIP]
- drivers/dummy-ups.c: `instcmd()`, `setvar()`: test conversion to new logging macros Testing: `:: NUT_STATEPATH=/tmp ./drivers/dummy-ups -DDDDDD -s test -x port= & :: (echo NOBROADCAST ; echo "INSTCMD qq" ; sleep 3 ; echo "INSTCMD qq arg" ; sleep 3 ; echo "SET qq" ; sleep 3 ; echo "SET qq 123" ; sleep 10; ) \ . /server/sockdebug /tmp/dummy-ups-test` Outputs: 8.003940 [D6] sock\_arg: Driver on /tmp/dummy-ups-test is now handling INSTCMD with 2 args 8.003974 [D2] entering main\_instcmd(qq, (null)) for [test] on socket 5 8.003982 [D2] shared main\_instcmd() does not handle command qq, proceeding to driver-specific handler 8.004017 [D1] Starting dummy-ups.c::instcmd(qq, (null)) 8.004049 instcmd: unknown command [qq] [(null)] 8.004059 [D6] sock\_arg: Driver on /tmp/dummy-ups-test is now handling INSTCMD with 3 args 8.004068 [D2] entering main\_instcmd(qq, arg) for [test] on socket 5 8.004075 [D2] shared main\_instcmd() does not handle command



qqq, proceeding to driver-specific handler 8.004080 [D1] Starting dummy-ups.c::instcmd(qqq, arg) 8.004086 instcmd: unknown command [qqq] [arg] (apparently the two got coalesced by delay between main.c loops) 11.504627 [D6] sock\_arg: Driver on /tmp/dummy-ups-test is now handling SET with 2 args 11.504669 Unknown command on socket: 11.504675 arg 0: SET 11.504678 arg 1: qqq (SET must have an argument) 14.004807 [D6] sock\_arg: Driver on /tmp/dummy-ups-test is now handling SET with 3 args 14.004856 [D2] entering main\_setvar(qqq, 123) for [test] on socket 5 14.004867 [D2] shared main\_setvar() does not handle variable qqq, proceeding to driver-specific handler 14.004874 [D1] Starting dummy-ups.c::setvar(qqq, 123) 14.004930 [D2] find\_info: unknown variable: qqq 14.004979 [D1] Unknown data. Committing anyway... 14.004992 [D2] find\_info: unknown variable: qqq 14.004997 [D1] Unknown data. Committing value anyway... 14.005062 [D5] send\_to\_all: SETINFO qqq "123" 14.005113 [D2] find\_info: unknown variable: qqq 14.005125 [D2] setvar: unknown variable (qqq), using default flags 14.005133 [D5] send\_to\_all: SETFLAGS qqq RW STRING 14.005144 [D5] send\_to\_all: SETAUX qqq 32

- drivers/upshandler.h, NEWS.adoc: introduce macros for common syslog level definitions and message wording for beginning and failing instcmd() or setvar() consistently in different drivers
- drivers/mge-utalk.c: setvar(): return STAT\_SET\_HANDLED when due
- drivers/oneac.c: instcmd(): use consistent method argument markup (spaces)
- NEWS.adoc, drivers/usbhid-ups.c, drivers/usbhid-ups.h: drivers/usbhid-ups.{c,h}, NEWS.adoc: rename HU\_FLAG\_CMD\_PARAM\_REQUIRED ⇒ HU\_FLAG\_PARAM\_REQUIRED and extend to setvar() too [#2955, #2860]

## 2.66 2025-05-14 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>

- data/cmdvartab, docs/nut-names.txt, drivers/mge-hid.c: added cmd "experimental.ecomode.start.auto" "experimental.ecomode.stop.au

## 2.67 2025-05-13 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/usbhid-ups.h, drivers/usbhid-ups.c, NEWS.adoc, docs/nut.dict: introduce HU\_FLAG\_CMD\_PARAM\_REQUIRED and a HU\_TYPE\_CMD\_PARAM\_REQUIRED shortcut for setting in the mapping tables Complete the feature started in commit 7991e4592e042f16f5e0757083f0fd58503e8a5e which became a regression of NUT v2.8.3 [#2860].
- drivers/usbhid-ups.c: drop EOL from single-line upsdebugx() reports
- drivers/usbhid-ups.h: bump ©
- drivers/usbhid-ups.h: revise comment markup

## 2.68 2025-05-12 penghong <penghong20000102@163.com>

- data/driver.list.in: Added some descriptions of UPS equipment.

## 2.69 2025-05-12 Jim Klimov <jimklimov+nut@gmail.com>

- tools/driver-list-format.sh: refactor VALID\_LINE definition [#2953]
- tools/driver-list-format.sh, data/Makefile.am: recognize caller-provided srcdir or builddir; use the latter for output files; include "/data" part inside DRVLIST\_PATH
- data/driver.list.in: fix markup of older entries
- tools/driver-list-format.sh: document the updated purpose, add copyrights
- tools/driver-list-format.sh: do not replace original file if it is same (do not confuse "make" and mess up archive timestamps)
- tools/driver-list-format.sh: fix also separators made of more than one TAB or a mix of TABs and spaces
- tools/driver-list-format.sh: verify that lines are either empty, all-comments, or have six fields (and optional comment)

- tools/driver-list-format.sh: prefix lines with script name to help see it in "make" log; revise message in case something "needs to be fixed"
- tools/driver-list-format.sh: TAB-separate the optional trailing comment from the last required field
- tools/driver-list-format.sh: rearrange the logic as a chain for better maintenance; use single-quotes around regex with a dollar
- tools/driver-list-format.sh: document the SED logic
- data/Makefile.am, data/.gitignore: take care of driver.list{,in}.tabbed files if they are left over
- Makefile.am, data/Makefile.am, tools/driver-list-format.sh, tools/Makefile.am: add a check (not change) mode for driver.list markup [#2952]
- docs/man/Makefile.am, docs/man/apc\_modbus.txt, docs/man/generic\_modbus.txt, docs/man/networked\_hostnames.txt, docs/man/networked\_hostnames.txt, docs/man/nut-ipmipsu.txt, docs/man/powerman-pdu.txt, docs/man/snmp-ups.txt: Introduce docs/man/networked\_hostnames.txt caveat, include it into networked driver man pages

## 2.70 2025-05-12 Jim Klimov <jim@jimklimov.com>

- docs/man/blazer\_ser.txt, docs/man/blazer\_usb.txt: inject a dummy "linkman" for .txt-prepped rewriter to patch up the man section [#2950]
- docs/man/nut.txt: elaborate more on "File or directory not found" messages, permissions, config files and nut-scanner
- docs/man/nut.txt: point to NUT Configuration Examples book

## 2.71 2025-05-11 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/dstate.c, tests/driver\_methods\_utest.c: check that LB can be set and status set\+commit+set+commit (without init in the middle) adds reported tokens [#2934]

## 2.72 2025-05-11 Jim Klimov <jim@jimklimov.com>

- docs/configure.txt: note that "datadir" for NUT must include the "/nut" part
- NEWS.adoc, UPGRADING.adoc, configure.ac, docs/configure.txt, docs/man/Makefile.am: configure.ac, docs/configure.txt, docs/man/Makefile.am: introduce "configure --with-docs-man-dir-as-base"
- .../python/app/locale/fr/LC\_MESSAGES/NUT-Monitor.mo, .../python/app/locale/it/LC\_MESSAGES/NUT-Monitor.mo, .../python/app/locale/nut/LC\_MESSAGES/NUT-Monitor.mo: scripts/python/app/locale/\*/LC\_MESSAGES/NUT-Monitor.mo: update after Qt6 bump [#2946]
- docs/man/nut.txt, docs/nut.dict: docs/man/nut.txt: add a chapter on NUT Run-time Nuances
- configure.ac, docs/configure.txt, docs/man/Makefile.am: configure.ac: auto-tune man page sections by platform (Solaris/illumos, and everyone else)
- configure.ac: line-break test for strdup()

## 2.73 2025-05-11 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>

- data/cmdvartab, docs/nut-names.txt, drivers/mge-hid.c: remove experimental.ecomode.[start/stop].auto var/cmd funtions for working in another pr and clean this pr

## 2.74 2025-05-10 Jim Klimov <jimklimov+nut@gmail.com>

- NEWS.adoc, drivers/dstate.c, tests/driver\_methods\_utest.c: Update asciidoc and C markup, and © headings [#2934]
-

**2.75 2025-05-10 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-hid.c: removed unused vars
- drivers/mge-hid.c: experimental.ecomode.stop/start.auto added as commands for test after compiled
- drivers/mge-hid.c: input.bypass.switch.on", "disabled (useless, onlly on,off can be runned) to "input.bypass.switch.off", "off" ,aded function of eaton\_input\_bypass\_check\_range(value); , eaton\_input\_eco\_mode\_check\_range(value);

**2.76 2025-05-09 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/man/usbhid-ups.txt, NEWS.adoc, UPGRADING.adoc: revise whitespace/markup [#2944]

**2.77 2025-05-09 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-hid.c: change place of 0-1 in eaton\_input\_eco\_mode\_auto\_on\_off\_info()
- data/cmdvartab, docs/nut-names.txt, drivers/mge-hid.c: experimental.ecomode.[start/stop] to experimental.ecomode.auto

**2.78 2025-05-08 Sebastian Kuttig <sebastian.kuttig@gmail.com>**

- NEWS.adoc: introduce NUT-Monitor-py3qt6
- docs/man/Makefile.am: introduce NUT-Monitor-py3qt6
- configure.ac: handle both py3qt5 and py3qt6 or either
- docs/configure.txt, docs/man/NUT-Monitor.txt, docs/new-clients.txt, docs/nut.dict: docs/\*: introduce NUT-Monitor-py3qt6
- scripts/python/Makefile.am, scripts/python/app/NUT-Monitor: handle PyQt5 and PyQt6
- scripts/python/README.adoc, scripts/python/app/NUT-Monitor-py3qt6.in, scripts/python/app/README.adoc, scripts/python/app/nmonitor-py3qt6.desktop: scripts/python/app/\*: introduce Py3Qt6 port for NUT Monitor
- scripts/python/app/.gitignore, scripts/python/app/locale/NUT-Monitor.pot, scripts/python/app/locale/fr/fr.po, scripts/python/app/locale/it/it.po, scripts/python/app/locale/ru/ru.po, scripts/python/app/ui/aboutdialog1.ui, scripts/python/app/ui/gui-1.3.glade, scripts/python/app/ui/gui-1.3.glade.h: scripts/python/app/\*: bump structure, version for Qt6

**2.79 2025-05-08 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/config-prereqs.txt: update for Python3 \+ Qt6 since 2025 distros [#2946]
  - scripts/python/app/NUT-Monitor-py3qt6.in: fix exec bit and whitespace alignment [#2946]
  - NEWS.adoc, UPGRADING.adoc: document introducing the text for a way to "man nut" [#2945]
  - docs/man/index.txt, docs/man/nut.txt, docs/nut.dict: docs/man/nut.txt, docs/man/index.txt: revise inclusion of index into "man nut" and restore the "Platform Management" sub-sectioning
  - docs/man/index.txt: drop colons from section names
  - docs/man/index.txt: add placeholder sections for more Platform Management types (to be documented)
  - docs/man/index.txt: avoid deep section title layers
  - docs/maintainer-guide.txt: no need to edit any files to publish a NUT for Windows build artifact
  - docs/download.txt: add a link for NUT for Windows artifact
  - docs/maintainer-guide.txt: update with AppVeyor CI artifact publication (NUT for Windows)
-

**2.80 2025-05-08 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>**

- drivers/mge-hid.c: experimental.ecomode.[start/stop].auto move to uprw \+ set NULL to last argument for bypass and ecomode cmds

**2.81 2025-05-07 invario <67800603+invario@users.noreply.github.com>**

- docs/nut.dict: Updated nut.dict after spellcheck
- NEWS.adoc, UPGRADING.adoc, data/driver.list.in, docs/man/usbhid-ups.txt, drivers/usbhid-ups.c: Update adds APC BVKnnnnM2 to list of devices being affected by spurious LB/RB issues and allows users to apply corresponding tweaks

**2.82 2025-05-07 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/man/Makefile.am, docs/man/nut.txt, docs/nut.dict: introduce a way to "man nut"
- NEWS.adoc, UPGRADING.adoc, configure.ac, docs/Makefile.am, docs/configure.txt, docs/man/Makefile.am: configure.ac, docs/Makefile.am, docs/man/Makefile.am etc.: introduce support for MAN\_SECTION\_MISC
- docs/Makefile.am: ChangeLog.html-contentchecked: entry\_filter(): refactor the regex for special-char escaping for pure(r)-POSIX portability [#2940]
- NEWS.adoc: rephrase innovart31 protocol support in nutdrv\_qx [#2938]

**2.83 2025-05-06 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc: announce nutdrv\_hashx driver [#2940]
- docs/Makefile.am: ChangeLog.html-contentchecked: entry\_filter(): escape some content characters that are special for regex later [#2940]
- docs/Makefile.am: ChangeLog.html-contentchecked: refactor with a common entry\_filter()
- drivers/nutdrv\_hashx.c: fix status\_bytes\_size printing [#2940]
- data/driver.list.in: fix markup: TAB before optional comment
- NEWS.adoc: announce new innovart33 protocol support in nutdrv\_qx [#2938]

**2.84 2025-05-05 Marco Trevisan (Treviño) <mail@3v1n0.net>**

- docs/nut-names.txt, drivers/nutdrv\_hashx.c: drivers/nutdrv\_hashx: Add Implement start / stop beeper test
  - data/cmdvartab, docs/nut-names.txt: data/nut-names: Add experimental commands to test the UPS beeper/buzzer Various UPS have this command to test the hardware beep, but NUT is not providing the command. I feel this could be not experimental, but let's make it as such for now since we only need for one driver AFAIK
  - data/driver.list.in: data/drivers.list: Mention other UPS that nutdrv\_hashx should support Update the drivers list based on what the official websites of the producers say, as these all are expected to work with PowerManager\+, and so they should also work with nitdrv\_hashx
  - drivers/nutdrv\_hashx.c: drivers/nutdrv\_hashx: Add support for running instant actions Support running commands for instant actions so that it's possible to interactively run them from NUT too
  - drivers/skel.c: drivers/skel: Fix reference to nut-names doc file
-

**2.85 2025-05-04 desertwitch <24509509+desertwitch@users.noreply.github.com>**

- drivers/clone.c: refactor core driver logic, minor fixes around previous work [#2936]

**2.86 2025-05-04 Viktor Drobot <linux776@gmail.com>**

- 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\_innovart33.c, drivers/nutdrv\_qx\_innovart33.h: Add support (experimental) for Ippon Innova RT 3/3

**2.87 2025-05-04 Marco Trevisan (Treviño) <mail@3v1n0.net>**

- AUTHORS, data/driver.list.in, docs/man/Makefile.am, docs/man/nutdrv\_hashx.txt, docs/nut.dict, drivers/Makefile.am, drivers/nutdrv\_hashx.c: drivers/nutdrv\_hashx: Add new driver for PowerManager\+ supported devices Add an initial driver for the "\*" protocol support that is used by many UPS out there that rely on the proprietary software suites PowerMaster\+, PowerMaster, PowerGuide and so on. . . The naming of the driver has been chosen since all the UPS replies start with an "\*", while there's not a definitive common pattern for the queries or commands. Apparently the same protocol is used by various UPS devices, both online and line-interactive (given that many producers advertise to use the said programs), and only in serial mode (AFAIK). Although this driver has solely been tested with the Atlantis Land S1200 line-interactive UPS. So there may be missing features (such as the bypass mode) or lack of information. However most of the decoding has been done and the driver is enough to update the UPS status for monitoring and shutdown purposes. As for now, only the status updates features have been implemented. Closes: #2769

**2.88 2025-05-03 desertwitch <24509509+desertwitch@users.noreply.github.com>**

- drivers/clone.c: reduce redundant argument parsing, debug messages [#2936]
- drivers/clone.c: further improve outlet status detection, debug messages [#2936]
- drivers/clone.c: revise outlet status logic, raise OFF for turned-off outlets No longer evaluate outlet status in instant command handling, but rather in the main update cycle. Raising OFF for a turned-off outlet aligns with the behavior of the clone-outlet driver.
- drivers/clone-outlet.c: fix whitespace [#2936]
- NEWS.adoc, drivers/clone-outlet.c, drivers/clone.c: drivers/clone{-outlet}.c, NEWS.adoc: modernize status handling
- NEWS.adoc: fill in pull request numbers for recent changes
- NEWS.adoc: add nhs\_ser, nutdrv\_qx\_ablerex modern alarm and status handling changes
- drivers/nutdrv\_qx\_ablerex.c: modernize alarm handling
- drivers/dummy-ups.c, docs/man/dummy-ups.txt, NEWS.adoc: introduce ALARM instruction for dummy modes

**2.89 2025-05-01 desertwitch <24509509+desertwitch@users.noreply.github.com>**

- drivers/nhs\_ser.c: modernize status and alarm handling
  - AUTHORS, docs/nut.dict: add desertwitch
  - tests/driver\_methods\_utest.c, NEWS.adoc: bump subdriver version, announce dstate changes
  - docs/developers.txt: fix typo [#2932]
-

**2.90 2025-04-30 desertwitch <24509509+desertwitch@users.noreply.github.com>**

- drivers/dstate.c: do not add whitespace on lone alarm [#2931]
- tests/driver\_methods\_utest.c: adapt for legacy and modern alarms [#2931]
- clients/upsmon.c: clarifications and beautifications for legacy alarms [#2931]
- drivers/dstate.c: keep legacy alarms unchanged, do not decouple from status [#2931]
- docs/new-drivers.txt: clarify alarm state handling

**2.91 2025-04-30 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/config-prereqs.txt, docs/nut.dict: generalize the title/intro for chapter on APT-based Debian-derived Linux systems [#2923]
- NEWS.adoc: clarify "driver updates" in section title
- docs/man/nutdrv\_qx.txt: typo fix (extra spaces)
- ci\_build.sh: add NUT\_UNMAPPED\_VARIANTS to BUILD\_TYPE="default-all-errors" matrix
- ci\_build.sh: revise default stance towards WITH\_UNMAPPED\_DATAPOINTS values

**2.92 2025-04-29 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/Makefile.am: .adoc-parsed generator: rewrite "\+" in URLs to "%2B" [#1407] Help with ChangeLog entry for an old URL buried in commit message years ago, from a branch getting merged just now.
  - docs/nut.dict: teach all systems that "inverters" is also a word [#1407]
  - tests/Makefile.am: restructure and comment cppunittest\_LDADD and cppnit\_LDADD [#2744] One positive result of experiments in PR #2744 which otherwise did not lead far, yet. . .
  - docs/Makefile.am: .adoc-parsed generator: rewrite "\+" in URLs to "%2B" [#1407] Help with ChangeLog entry for an old URL buried in commit message years ago, from a branch getting merged just now.
  - NEWS.adoc: URL-encode the plus character in GitHub URL (branch name part) [#1407]
  - NEWS.adoc: document the fix of failed `configure --with-drivers=dummy-ups` scenario [#2927]
  - configure.ac: `get_drivers_makefile_value()`: recurse to expand make variables in discovered values [#2927]
  - configure.ac: rename `get_drvlist()`  $\Rightarrow$  `get_drivers_makefile_value()` [#2927]
  - configure.ac: `get_drvlist()`: do not forget dollar chars; do drop `$(EXEEXT)` though [#2927]
  - configure.ac: `get_drvlist()`: trim multiple repetitive SPACES per combined line into one space each [#2927]
  - configure.ac: `get_drvlist()`: quick-return from the loop after we finish reading the assignment (may be multi-line) [#2927]
  - docs/nut.dict: teach all systems that "inverters" is also a word [#1407]
-

## 2.93 2025-04-28 Jim Klimov <jimklimov+nut@gmail.com>

- docs/nut.dict: teach all systems that "photovoltaic" is a word [#1407]
- drivers/nutdrv\_qx\_ablerex.c, drivers/nutdrv\_qx\_ablerex.h, drivers/powervar-hid.h: drivers/nutdrv\_qx\_ablerex.{c,h}, drivers/powervar-hid.h: fix POSIX attrs in git
- docs/nutdrv\_qx-subdrivers.txt: clarify how the "protocol" names are determined
- docs/nut.dict: teach all systems that "photovoltaic" is a word [#1407]
- drivers/nutdrv\_qx\_voltronic-axpert.c: voltronic\_sunny\_fault(): use alarm[LARGEBUF] so that item→value[SMALLBUF] can fit with added markup [#1407] ... not that we expect problems with this, but compiler warns they are feasible: error: %s directive output may be truncated writing up to 511 bytes into a region of size 497 [-Werror=format-truncation=]
- drivers/nutdrv\_qx\_voltronic-axpert.c: use double-TABs with TESTING\_AXPERT\* macro definitions for better visibility [#1407]
- drivers/nutdrv\_qx\_voltronic-axpert.c: suggest how to timker with TESTING\_AXPERT\* macros [#1407]
- docs/man/nutdrv\_qx.txt, docs/nut.dict: add voltronic-axpert info [#1407]
- drivers/nutdrv\_qx\_ablerex.c, drivers/nutdrv\_qx\_ablerex.h, drivers/powervar-hid.h: drivers/nutdrv\_qx\_ablerex.{c,h}, drivers/powervar-hid.h: fix POSIX attrs in git
- docs/nutdrv\_qx-subdrivers.txt: clarify how the "protocol" names are determined
- configure.ac, scripts/Windows/dllldd.sh: use question mark in grep regex, that seems to work everywhere and suits the purpose better [#2920]

## 2.94 2025-04-27 Jim Klimov <jimklimov+nut@gmail.com>

- docs/man/victronups.txt: fix a few typos
  - docs/man/ve-direct.txt: fix man page markup to NUT v2.8.3 patterns, fix a few typos [#440]
  - docs/daisychain.txt: docs/daisychain.txt" fix typo (duplicate "the the")
  - configure.ac: quieter grep for unbuildable doc formats
  - configure.ac: clarify why unbuildable doc formats are just warnings initially
  - configure.ac, NEWS.adoc: fix regression of `configure --with-docs=all` released with NUT v2.8.3 Fallout of #2842, used wrong variable name for checking the requested list of doc types
  - configure.ac: fix indentation
  - configure.ac: make use of NUT\_REPORT\_FEATURE() arg #6 to produce saner message wording
  - m4/nut\_report\_feature.m4: NUT\_REPORT\_FEATURE: allow other prefixes than "whether to"
  - configure.ac: NUT\_REPORT\_FEATURE("requested to build and install documentation") to also report the decided nut\_doc\_build\_list of specific required formats
  - configure.ac: use better portable regex syntax
  - scripts/Windows/dllldd.sh: use better portable regex syntax
  - tools/gitlog2version.sh: use better portable regex syntax
-



**2.95 2025-04-26 desertwitch <24509509+desertwitch@users.noreply.github.com>**

- drivers/cps-hid.c: bump subdriver version, rename nominal power constant [#2919]
- NEWS.adoc: cps-hid nominal power reporting fixes
- drivers/cps-hid.c: consider also non-broken ConfigActivePower descriptors [#2919]
- drivers/cps-hid.c: add report descriptor fix for ConfigActivePower

**2.96 2025-04-26 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc: added a ve-direct driver for Victron Energy UPS/solar panels monitoring [#440]
- drivers/ve-direct.c: cast the int type for hex scanf() [#440]
- NEWS.adoc, docs/nut.dict: NEWS.adoc: introduced Voltronic Axpert inverter subdriver [#1407]

**2.97 2025-04-25 Jim Klimov <jimklimov@gmail.com>**

- drivers/ve-direct.c: fix code style (markup, declarations before code) [#440]

**2.98 2025-04-25 Jim Klimov <jimklimov+nut@gmail.com>**

- ci\_build.sh: introduce (or guess) WITH\_UNMAPPED\_DATAPOINTS optional toggle
  - ci\_build.sh: add --with-unmapped-data-points for non-production builds
  - docs/developers.txt, docs/nut.dict: document avoiding VLA
  - drivers/ve-direct.c: fix declaration after code [#440]
  - drivers/nutdrv\_qx\_voltronic-axpert.c: name "experimental.\*" values in the mapping table as such; comment a few of them [#1407]
  - drivers/nutdrv\_qx\_voltronic-axpert.c: fence yet-unmapped data points and commands (and their processing methods) better than "#if 0" [#1407]
  - ci\_build.sh: introduce (or guess) WITH\_UNMAPPED\_DATAPOINTS optional toggle
  - ci\_build.sh: add --with-unmapped-data-points for non-production builds
  - drivers/nutdrv\_qx\_voltronic-axpert.c: fix whitespace [#1407]
  - drivers/nutdrv\_qx\_voltronic-axpert.c: fix to use snprintf\_dynamic() to check dynamic formatting string sanity at run-time [#1407]
  - drivers/nutdrv\_qx\_voltronic-axpert.c: avoid direct comparison of int and float [#1407]
  - drivers/nutdrv\_qx\_voltronic-axpert.c: avoid variable-length buffer init [#1407]
  - drivers/nutdrv\_qx\_voltronic-axpert.c: avoid missing field initializers [#1407]
  - drivers/nutdrv\_qx\_voltronic-axpert.c: avoid declarations after code [#1407]
  - drivers/nutdrv\_qx\_voltronic-axpert.c: voltronic\_axpert\_crc(): annotate NUT\_UNUSED\_VARIABLE(item) [#1407]
  - drivers/nutdrv\_qx\_voltronic-axpert.c: annotate NUT\_UNUSED\_VARIABLE(len) in some methods [#1407]
  - docs/developers.txt, docs/nut.dict: document avoiding VLA
  - drivers/common\_voltronic-crc.c: avoid variable-length buffer init [#1407]
-



- drivers/nutdrv\_qx.c: armac\_command() reconcile use of now known cmdlen arg vs. strlen(cmd) content [#1407]
- drivers/nutdrv\_qx.c: gtec\_command(): add cmdlen arg and use it for sanity-check along the way [#1407]
- drivers/nutdrv\_qx.c: ablerex\_command(): use cmdlen arg for sanity-check along the way [#1407]
- drivers/ve-direct.c: trivialize upsdrv\_help() [#440] Suggestion to RTFM is now centralized in NUT code base

## 2.99 2025-04-24 Jim Klimov <jimklimov+nut@gmail.com>

- Jenkinsfile-dynamatrix: constrain shellcheck to "nut-builder" agents normally Avoid firing up QEMU builders on the NUT CI farm, unless we want QEMU tests
- clients/upsclient.c, common/common.c, include/common.h, server/upsd.c: Constrain pre-processor visibility and impact of inet\_ntopXX() methods with NUT\_WANT\_INET\_NTOP\_XX macro [#2916]
- include/common.h: fix includes for inet\_ntopXX [#2916]
- Jenkinsfile-dynamatrix: constrain shellcheck to "nut-builder" agents normally Avoid firing up QEMU builders on the NUT CI farm, unless we want QEMU tests
- NEWS.adoc, clients/upsclient.c, common/common.c, docs/nut.dict, include/common.h, server/upsd.c: Refactor inet\_ntopSS() and inet\_ntopAI() into common code, simplify upsclient and upsd
- server/upsd.c: add a sanity check into inet\_ntopW() [#2915]
- server/upsd.c: introduce inet\_ntopAI() specifically for struct addrinfo conversion [#2915]
- NEWS.adoc: fixed upsd printing of "further addresses ignored" [#2915]

## 2.100 2025-04-23 Jim Klimov <jimklimov+nut@gmail.com>

- Makefile.am: group check-files-quick (spellcheck-quick check-man) before check-recursive which is the Autotools implementation behind "make check"
  - common/common-nut\_version.c: nut\_report\_config\_flags(): report not only bitness but also target CPU if available [#2097]
  - clients/Makefile.am: libupsclient.la and libnutclient.la do not actually include libcommonversion.la [#2097]
  - Makefile.am: add a goal for libupsclient-version.h shortcut, just to be on par with an existing nut\_version.h goal [#2097]
  - Makefile.am, tools/nut-scanner/Makefile.am: current nut-scanner does not actually depend on nut\_version.h (or not directly, just via libcommonversion.la) [#2097]
  - Makefile.am, clients/Makefile.am, common/Makefile.am, drivers/Makefile.am, scripts/Windows/Makefile.am, server/Makefile.am, tools/nut-scanner/Makefile.am, tools/nutconf/Makefile.am: **/Makefile.am: refactor with a separate libcommonversion.la [#2097] Avoid multiple rebuilds and relinks of libcommon.la** and their dependants when nut\_version.h changes. Now there is just one library impacted by this, included to LDFLAGS across the board for Makefiles of directories with consumers of methods exported from common-nut\_version.c (declared by common.h still).
  - common/common-nut\_version.c: nut\_report\_config\_flags(): try to also report build bitness, if known [#2097]
  - NEWS.adoc, common/Makefile.am, common/common-nut\_version.c, common/common.c: common/common-nut\_version.c, common/common.c: evict UPS\_VERSION and its consumers into a separate compilation unit [#2097]
  - drivers/dstate.c: Implement dstate\_addenum\_dynamic() [#2450]
  - common/common.c, drivers/dstate.c, drivers/mge-utalk.c: Update comments about remaining FORMAT\_NONLITERAL and/or FORMAT\_SECURITY pragmas to quiesce compiler warnings [#2450]
  - common/common.c: minimize\_formatting\_string(): address error: switch missing default label [#2450, #2460]
-

**2.101 2025-04-23 Jeremy Cooper <jeremy.gthb@baymoo.org>**

- server/upsd.c: Fix [issue #2914](#): upsd misprint/buffer overflow.

**2.102 2025-04-22 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc: fix entry for RPATH to NUT libs (was first planned for 2.8.4 but got into 2.8.3 ultimately) [[#2782](#), [#2865](#)]
- tools/gitlog2version.sh: Reapply "tools/gitlog2version.sh: bump NUT\_VERSION\_DEFAULT=2.8.3.1 for next development cycle" This reverts commit 70faea2af378aec996e5f7284413df23d1e73410: finally released NUT v2.8.3, preparing for v2.8.4 cycle now.
- NEWS.adoc, UPGRADING.adoc, docs/docinfo.xml.in: Revert "Revert "Revert "NEWS.adoc, UPGRADING.adoc, docs/docinfo.xml.in: finalize text before NUT v2.8.3 release"" This reverts commit 051b49d9f0e693613d958837baf3e9bd1c0fa624: finally released NUT v2.8.3, preparing for v2.8.4 cycle now.
- docs/maintainer-guide.txt: a few more suggestions
- drivers/generic\_gpio\_libgpod.c: align another print format with int type [[#2911](#)]

**2.103 2025-04-21 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac, common/common.c, include/Makefile.am, docs/nut-versioning.adoc: integrate NUT\_VERSION\_QUERY=IS\_PRERELEASE support
- tools/gitlog2version.sh, docs/nut-versioning.adoc: extend NUT SEMVER with support for (rc|alpha|beta) tags or VERSION\_FORCED file contents; queries and variables for PRERELEASE info
- docs/maintainer-guide.txt, docs/nut-versioning.adoc, tools/gitlog2version.sh: tools/gitlog2version.sh, docs/maintainer-guide.txt: introduce support for NUT\_VERSION\_QUERY="UPDATE\_FILE\_GIT\_RELEASE"
- docs/nut.dict: fix order and count
- docs/maintainer-guide.txt: suggest RC naming in VERSION\_FORCED, and a way to protect these files from accidental deletion

**2.104 2025-04-20 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac: always detect if we have \_disted\_doc\_man
- configure.ac: report something reasonable if we skipped checking for have\_disted\_doc\_man

**2.105 2025-04-18 desertwitch <24509509+desertwitch@users.noreply.github.com>**

- common/nutwriter.cpp, tests/nutconf\_ut.cpp: streamline ALARMCRITICAL writer/expectations with documentation [[#2909](#)]
  - scripts/augeas/nutupsmonconf.aug.in: introduce ALARMCRITICAL setting
  - common/nutwriter.cpp: introduce upsmon ALARMCRITICAL setting
  - common/nutconf.cpp, include/nutconf.hpp, tests/nutconf\_ut.cpp: introduce upsmon ALARMCRITICAL setting
  - scripts/augeas/nutupsmonconf.aug.in: introduce OVERDURATION setting
  - common/nutwriter.cpp: introduce upsmon OVERDURATION setting
  - common/nutconf.cpp, include/nutconf.hpp, tests/nutconf\_ut.cpp: introduce upsmon OVERDURATION setting
  - NEWS.adoc, docs/nut.dict: introduce OVERDURATION setting
  - conf/upsmon.conf.sample.in, docs/man/upsmon.conf.txt: introduce OVERDURATION setting
  - clients/upsmon.c, clients/upsmon.h: introduce OVERDURATION setting
-

**2.106 2025-04-18 Jim Klimov <jimklimov+nut@gmail.com>**

- tests/nutconf\_ut.cpp: fix expectations for ALARMCritical [#2909]
- tools/nut-usbinfopl: comment a TODO
- Makefile.am, tools/Makefile.am: fix parallel rebuilds of nut-scanner (generate sources via nut-scanner-deps/tools only once) [#2825]
- drivers/hwmon\_ina219.c: rephrase message about invalid "port" value
- drivers/nutdrv\_qx.c: warn user if setting both port!="auto" and settings for USB mode [#2906]
- drivers/nutdrv\_qx.c: avoid extra lookup for dstate\_getinfo("driver.parameter.port")

**2.107 2025-04-17 Jim Klimov <jimklimov+nut@gmail.com>**

- Makefile.am, docs/Makefile.am, scripts/Solaris/Makefile.am, tests/Makefile.am: \*/Makefile.am: report work skipped by design as "SKIP description" (separated by TAB chars)
- Makefile.am, common/Makefile.am, docs/Makefile.am, docs/man/Makefile.am, scripts/Solaris/Makefile.am, scripts/python/-module/Makefile.am: \*/Makefile.am: where we echo "TOKEN description", separate them by TAB chars

**2.108 2025-04-16 Jim Klimov <jimklimov+nut@gmail.com>**

- Jenkinsfile-dynamatrix: skip macos for Default Autotools builds (fightwarn/qemu scenarios) At least now that the worker available to NUT CI farm requires hacks for HomeBrew with -Wno-poison-system-directories ...
- UPGRADING.adoc: revise notes for NUT v2.8.3 release to upper-case starts of sentences
- NEWS.adoc: revise notes for NUT v2.8.3 release to group some themes and to upper-case starts of sentences
- NEWS.adoc: modbus drivers now report NUT\_MODBUS\_LINKTYPE\_STR [#2897]
- drivers/phoenixcontact\_modbus.c, drivers/generic\_modbus.c, drivers/huawei-ups2000.c, drivers/socomec\_jbus.c, drivers/adelsystem\_cbi.c: report NUT\_MODBUS\_LINKTYPE\_STR
- drivers/apc\_modbus.c: report NUT\_MODBUS\_LINKTYPE\_STR
- m4/nut\_check\_libmodbus.m4: detect NUT\_MODBUS\_LINKTYPE\_STR
- m4/nut\_check\_libmodbus.m4: only define NUT\_MODBUS\_HAS\_USB if nut\_have\_libmodbus also
- configure.ac: detect LDD early, so everyone can use it if available
- common/common.c, NEWS.adoc: upsnotify(): default to not spam if our first message to be suppressed is already about stopping the program [#1590]

**2.109 2025-04-15 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/maintainer-guide.txt: more notes to check code/recipe quality before release
  - docs/config-prereqs.txt, docs/nut.dict: wrap most long lines, reword a few
-

**2.110 2025-04-14 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/man/upscmd.txt, docs/man/upsrw.txt: clarify "OK" vs. waiting for result [#2900]
- docs/Makefile.am: ensure qa-guide-docinfo.xml made for qa-guide.adoc-prepped generally
- Jenkinsfile-dynamatrix: use ci\_build.sh extended to support BUILD\_TYPE="default-spellcheck-quick"
- ci\_build.sh: extend to support BUILD\_TYPE="default-spellcheck-quick" as well as CLI shortcuts for quick interactive and normal spellchecks
- ci\_build.sh: help troubleshoot invalid CPP setting
- ci\_build.sh: build\_to\_only\_catch\_errors\_check(): call from default build routine too instead of "make check"
- ci\_build.sh: build\_to\_only\_catch\_errors\_check(): handle spellcheck-quick before other checks
- configure.ac, NEWS.adoc: extend enable\_inplace\_runtime mode to consider also cginpath, drvpath, datadir, libdir [#2895]
- docs/maintainer-guide.txt: note to check for library changes (exposed API) [#2895]
- docs/maintainer-guide.txt: note to not rush, and do use RC tags
- clients/Makefile.am, tools/nut-scanner/Makefile.am, UPGRADING.adoc: flip library version-info to new "current" numbers (more symbols exported now) [#2895]
- docs/configure.txt, docs/nut.dict: docs/configure.txt: tell more about the --datadir option vs. --datarootdir
- configure.ac: typo fix in comment
- configure.ac: suggest comparing the "in-place" FS layout before installing it live [#2895]
- INSTALL.nut.adoc: in-place upgrades: document how to compare new build FS layout to existing deployment to be overwritten
- INSTALL.nut.adoc: fix dashes in "Building NUT for in-place upgrades or non-disruptive tests" chapter title and references (Unicode⇒ASCII)

**2.111 2025-04-12 Scott Shambarger <devel@shambarger.net>**

- scripts/external\_apis/enphase/enphase-monitor.in: scripts/external\_apis/enphase: correct neg number conversion, retry api Negative floats, and floats 0.08/0.09 were resulting in invalid octal numbers. The envoy API occasionally stalls; extended timeout to 10s and added a single retry to avoid spurious "nocomms" state.

**2.112 2025-04-11 Jim Klimov <jimklimov+nut@gmail.com>**

- common/unsetenv.c, configure.ac, include/proto.h: Introduce fallback unsetenv() e.g. for WIN32 [#2890]
  - NEWS.adoc: note the changes for upssched and NIT [#2890]
  - clients/upssched.c: also writepid() and unsetenv() in WIN32 builds [#2890]
  - clients/upssched.c: unsetenv("NOTIFYTYPE") and unsetenv("UPSNAME") when starting the timer loop [#2890]
  - clients/upssched-cmd: use UTC date in sample reports [#2890]
  - scripts/misc/notifyme-debug: also print envvar and other details to stderr if calling upssched and NUT\_DEBUG\_LEVEL>0 [#2890]
  - tests/NIT/nit.sh: track down PID\_UPSSCHED in more cases, try to report via env file for sandbox [#2890]
  - tests/NIT/nit.sh: make sure we have upssched and upssched to test [#2890]
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- tests/NIT/nit.sh: support per-tool NUT\_DEBUG\_LEVEL\_\* settings [#2890]
- scripts/misc/notifyme-debug: allow a separate NUT\_DEBUG\_LEVEL\_UPSSCHED [#2890]
- tests/NIT/nit.sh: stop\_daemons(): pick up PID\_UPSSCHED from \$NUT\_PIDPATH/upssched.pid if possible [#2890]
- clients/upssched.c: writepid() from the timer daemon child loop [#2890]
- scripts/misc/notifyme-debug, tests/NIT/nit.sh: call upssched for testing as part of upsmon NOTIFYME [#2890]
- tests/NIT/nit.sh, tests/NIT/upssched.conf.in: tests/NIT/nit.sh: generatecfg\_upsmon\_trivial(): populate also upssched.conf [#2890]
- clients/upssched-cmd: make the sample script a bit more useful [#2890]
- tools/nutconf/nutconf-cli.cpp: do not declare var inside for()
- drivers/generic\_gpio\_libgpiod.c: do not declare var inside for()

### 2.113 2025-04-10 Jim Klimov <jimklimov+nut@gmail.com>

- tests/generic\_gpio\_liblocal.c: declare variables at top of scope
- tests/generic\_gpio\_ute.c: fix casting for %u printing of literal numbers (via macro)
- drivers/hwmon\_ina219.c: fix format strings for %u printing
- drivers/ase.c: fix casting for %x printing and maths
- drivers/generic\_gpio\_libgpiod.c: declare variables at top of scope
- drivers/generic\_gpio\_libgpiod.c: fix casting for %x printing
- docs/config-prereqs.txt: update for Debian 13 (python3-pyqt5, systemd-dev, java 21)
- Makefile.am: install-as-root: consider nut-udev-settle.service [#2638]
- scripts/systemd/nut-udev-settle.service: it suffices to NOT RemainAfterExit and still be Type=oneshot to get triggered for driver restart(s) [#2638]

### 2.114 2025-04-09 Scott Shambarger <devel@shambarger.net>

- scripts/external\_apis/enphase/enphase-monitor.in, scripts/external\_apis/enphase/enphase-monitor@.service.in: scripts/external\_apis/enphase/enphase-monitor@.service.in: correct number conversion, service file Floats <1.0 were being handled as octal, corrected to use decimal. Corrected path substitution in enphase-monitor service file.

### 2.115 2025-04-09 Jim Klimov <jimklimov+nut@gmail.com>

- scripts/systemd/Makefile.am: actually deliver nut-udev-settle.service [#2638]
  - scripts/python/Makefile.am: fix delivery of install-data-hook-app-locale-symlinks [#2857]
  - scripts/upsdrvsvctlnut-driver-enumerator.sh.in: upsconf\_getDriverMedia(): comment a FIXME for more media types of recently added driver concepts
  - NEWS.adoc, UPGRADING.adoc: document nut-udev-settle.service [#2638]
  - scripts/systemd/nut-server.service.in: small typos in comments
  - scripts/systemd/nut-udev-settle.service, scripts/systemd/nut-systemd.preset, scripts/upsdrvsvctlnut-driver-enumerator.sh.in: pull in nut-udev-settle.service when needed [#2638]
  - scripts/systemd/nut-udev-settle.service: modify Description and optional dependencies [#2638]
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- scripts/systemd/nut-udev-settle.service: import systemd-udev-settle.service from systemd for adaptation as part of NUT; update only header comment so far [#2638]
- scripts/upsdrvsvcctl/nut-driver-enumerator.sh.in: fix typo about systemd-udev.service [#2638]
- clients/.gitignore, clients/Makefile.am, include/.gitignore, include/Makefile.am: include/Makefile.am, clients/Makefile.am: fix possible clashes of parallel re-generation of nut\_version.h and/or libupsclient-version.h [#2875]
- docs/man/nutdrv\_qx.txt: warn that detection of Qx dialect can take a minute [#2885]
- NEWS.adoc: document changes for upsdrvctl [#2885, #2888]
- drivers/upsdrvctl.c, docs/man/upsdrvctl.txt, docs/man/ups.conf.txt, conf/ups.conf.sample: bump default maxstartdelay from 45 to 75 sec [#2885]
- drivers/upsdrvctl.c, drivers/main.c, docs/man/ups.conf.txt, conf/ups.conf.sample: make "maxtries" and "retrydelay" configurable at driver level too [#2888]
- drivers/upsdrvctl.c: do not allow invalid "maxretry" settings [#2888]
- drivers/main.c: tolerate driver-level maxstartdelay setting (for upsdrvctl) [#2885, #2888]
- drivers/upsdrvctl.c: report applicable (global/device) maxstartdelay values when they are exceeded [#2885]
- docs/man/upsdrvctl.txt, drivers/upsdrvctl.c: document defaults for maxstartdelay, maxretry and retrydelay [#2885]

#### 2.116 2025-04-09 Bill Elliot <bill@wreassoc.com>

- drivers/powervar-cu.c: Add setting of ups.vendorid and ups.productid.

#### 2.117 2025-04-08 Jim Klimov <jimklimov+nut@gmail.com>

- UPGRADING.adoc: mention NUT\_DEFAULT\_CONNECT\_TIMEOUT among new envvars
- appveyor.yml: handle also FTY and fightwarn branches
- .github/workflows/codeql.yml: handle also FTY and fightwarn branches
- Makefile.am: nut-scanner does directly depend on clients after all
- NEWS.adoc, UPGRADING.adoc, docs/docinfo.xml.in: Revert "Revert "NEWS.adoc, UPGRADING.adoc, docs/docinfo.xml.in: finalize text before NUT v2.8.3 release"" This reverts commit b12eac3bb52ce0a348bb9601ddab30e47b8b218d. Re-releasing v2.8.3 after small but important recipe bumps.
- tools/gitlog2version.sh: Revert "tools/gitlog2version.sh: bump NUT\_VERSION\_DEFAULT=2.8.3.1 for next development cycle" This reverts commit 52214a8fc9b8cf30375d411eb71629181115e3dd. Re-releasing v2.8.3 after small but important recipe bumps.
- include/Makefile.am: nut\_version.h: propagate failure (if there ever is one) writing the temporary output
- clients/.gitignore, clients/Makefile.am: clients/Makefile.am: libupsclient-version.h: take a transactional approach to changing (or not) the file others depend on

#### 2.118 2025-04-08 DaRK AnGeL <28630321+masterwishx@users.noreply.github.com>

- drivers/mge-hid.c: ecomode cmd functions addon
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**2.119 2025-04-07 Jim Klimov <jimklimov+nut@gmail.com>**

- tools/gitlog2version.sh: bump NUT\_VERSION\_DEFAULT=2.8.3.1 for next development cycle
- NEWS.adoc, UPGRADING.adoc, docs/docinfo.xml.in: Revert "NEWS.adoc, UPGRADING.adoc, docs/docinfo.xml.in: finalize text before NUT v2.8.3 release" This reverts commit d3427d7fd3c83b8f5b61c8e369139e2bd6168203 after the NUT release v2.8.3.

**2.120 2025-02-14 Bill Elliot <bill@wreassoc.com>**

- docs/man/Makefile.am: Additions to docs/man/Makefile.am.

**2.121 2025-02-11 Bill Elliot <bill@wreassoc.com>**

- data/driver.list.in, docs/man/powervar-cx.txt, drivers/powervar-cx.h: Documentation updates.
- drivers/powervar-cs.c, drivers/powervar-cu.c, drivers/powervar-cx.h: Cleaned up for testing.
- drivers/powervar-cs.c, drivers/powervar-cu.c, drivers/powervar-cx.h: USB disconnect/reconnect seems to be working.

**2.122 2025-02-07 Bill Elliot <bill@wreassoc.com>**

- drivers/powervar-cs.c, drivers/powervar-cu.c, drivers/powervar-cx.h: After testing on GTS and UPM. Still need USB dis/reconnect logic.

**2.123 2025-02-04 Bill Elliot <bill@wreassoc.com>**

- drivers/powervar-cs.c, drivers/powervar-cu.c, drivers/powervar-cx.h: Text tweaks and help text sequence change(s).

**2.124 2025-02-03 Bill Elliot <bill@wreassoc.com>**

- drivers/powervar-cs.c, drivers/powervar-cu.c, drivers/powervar-cx.h: Generally working drivers prior to command testing.

**2.125 2025-01-23 Bill Elliot <bill@wreassoc.com>**

- drivers/powervar-cs.c, drivers/powervar-cu.c, drivers/powervar-cx.h: Adding commands and variables. General cleanups.

**2.126 2025-01-22 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/config-prereqs.txt: update for OmniOS r151052

**2.127 2025-01-22 Bill Elliot <bill@wreassoc.com>**

- drivers/powervar-cs.c, drivers/powervar-cu.c, drivers/powervar-cx.h: GTS USB working well for Init and Update.

**2.128 2025-01-02 Jim Klimov <jimklimov+nut@gmail.com>**

- common/common.c, common/nutipc.cpp, NEWS.adoc, docs/nut.dict: support writepid() calls by non-root programs [#1717]
  - common/common.c, common/nutipc.cpp, NEWS.adoc, docs/nut.dict: support writepid() calls by non-root programs [#1717]
-



**2.129 2024-12-19 Bill Elliot <bill@wreassoc.com>**

- drivers/powervar-cu.c, drivers/powervar-cx.h: Move toward working USB driver — BROKENgit diff

**2.130 2024-12-03 Bill Elliot <bill@wreassoc.com>**

- drivers/powervar-cu.c: Change comment above VENDORID so USB is identified correctly as *Powervar*.
- drivers/Makefile.am, drivers/powervar-c.h, drivers/powervar-cs.c, drivers/powervar-cu.c, drivers/{powervar-c.c ⇒ powervar-cx.h}: USB building and communicating. Trying common variable and function file for serial and usb drivers.

**2.131 2024-11-11 Bill Elliot <bill@wreassoc.com>**

- drivers/Makefile.am, drivers/powervar-c.c, drivers/powervar-c.h, drivers/powervar-cu.c: Still trying to get USB driver to build.

**2.132 2024-10-26 Bill Elliot <bill@wreassoc.com>**

- drivers/powervar-c.c, drivers/powervar-c.h: Now most update stuff is in place.

**2.133 2024-10-24 Bill Elliot <bill@wreassoc.com>**

- drivers/Makefile.am, drivers/powervar-c.c, drivers/powervar-c.h: Most init stuff in place. This is before working on update function.

**2.134 2024-09-19 Bill Elliot <bill@wreassoc.com>**

- drivers/oneac.c: Coding standard fixes.

**2.135 2024-06-04 Jim Klimov <jimklimov+nut@gmail.com>**

- include/common.h, common/common.c, drivers/dstate.c, drivers/nutdrv\_qx\_blazer-common.c: define macros for minimize\_formatting and validate\_formatting\_string() verbosity argument values [#2450] Custom builds that do not want to require setting driver/-tool debug levels can re-define their NUT\_DYNAMICFORMATTING\_DEBUG\_LEVEL to e.g. 0 and see any formatting discrepancies instantly.

**2.136 2024-06-02 Jim Klimov <jimklimov+nut@gmail.com>**

- tests/nutlogtest.c: use support for plain "-Wformat" and for "-Wformat-extra-args" in pragmas to quiesce "bogus-looking" test cases [#2450]
  - m4/ax\_c\_pragmas.m4: detect support for plain "-Wformat" and for "-Wformat-extra-args" [#2450]
  - tests/nutlogtest.c, common/common.c: validate\_formatting\_string(): tolerate dynamic formats that are sub-strings and beginnings of reference (wasteful but survivable) [#2450]
  - common/common.c: minimize\_formatting\_string(): warn in doc that this may produce invalid printf-style strings and not complain (garbage in = garbage out) [#2450]
  - tools/nut-scanner/nutscan-serial.c: add /dev/cua\* patterns for different platforms
  - tools/nut-scanner/Makefile.am, tools/nut-scanner/nutscan-serial.c: tools/nut-scanner/nutscan-serial.c: Harden NUT work with strings by switching to snprintf\_dynamic() instead of hushing potential flaws with macros [#2450]
  - common/common.c: vsnprintf\_dynamic(): NULL "dst" or its "size" are a valid use-case for vsnprintf() [#2450]
  - common/common.c, include/common.h, drivers/dstate.c, tests/nutlogtest.c: introduce verbosity option to validate\_formatting\_string() and minimize\_formatting\_string() [#2450]
-



**2.137 2024-06-01 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/nutdrv\_qx\_blazer-common.c: blazer\_process\_command() for "test.battery.start" might vary by applicable formatting strings [#2450]
- drivers/nutdrv\_qx\_bestups.c: bestups\_get\_pins\_shutdown\_mode(): comment the odd conversion, and harden with snprintf\_dynamic() [#2450]
- drivers/nutdrv\_qx\_bestups.c: bestups\_batt\_packs(): range-check and properly cast the value, and harden with snprintf\_dynamic() [#2450]
- clients/upsclient.c, clients/upsimage.c, clients/upsmon.c, drivers/apc\_modbus.c, drivers/apcupsd-ups.c, drivers/bcmxcp.c, drivers/bestfortress.c, drivers/blazer.c, drivers/blazer\_ser.c, drivers/blazer\_usb.c, drivers/huawei-ups2000.c, drivers/liebert-esp2.c, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx\_bestups.c, drivers/nutdrv\_qx\_blazer-common.c, drivers/nutdrv\_qx\_masterguard.c, drivers/nutdrv\_qx\_mecer.c, drivers/nutdrv\_qx\_voltronic-qs-hex.c, drivers/nutdrv\_qx\_voltronic-qs.c, drivers/nutdrv\_qx\_voltronic.c, drivers/powerp-bin.c, drivers/powerp-txt.c, drivers/snmp-ups.c, drivers/usbhid-ups.c: Harden NUT work with strings by switching to snprintf\_dynamic() instead of hushing potential flaws with macros [#2450] Found by pragmas to clean up, with :: git grep -En *Wformat-(sec\|nonlit)*
- clients/upsimage.c, clients/upssched.c, clients/upsset.c, drivers/belkinunv.c, drivers/bestfortress.c, drivers/mge-utalk.c, drivers/nutdrv\_atcl\_usb.c, drivers/richcomm\_usb.c, drivers/serial.c: Harden NUT work with strings: comment which use-cases we DID NOT switch to snprintf\_dynamic() instead of hushing potential flaws with macros [#2450]
- drivers/nutdrv\_qx\_bestups.c: bestups\_model(): fix bogus sprintf() for an unknown model [#2450]

**2.138 2024-05-31 Jim Klimov <jimklimov+nut@gmail.com>**

- common/common.c, tests/nutlogtest.c: minimize\_formatting\_string(): collapse known different formats for same data type into same char to ease sanity-check comparisons [#2450]
- docs/developers.txt, docs/new-drivers.txt, docs/nut.dict: document hardened \*\_dynamic() string methods [#2450]
- drivers/dstate.c, drivers/dstate.h: drivers/dstate.{c,h}: add vdstate\_setinfo(), vdstate\_addenum() and versions for hardened dynamic format string support [#2450]

**2.139 2024-05-30 Jim Klimov <jimklimov+nut@gmail.com>**

- common/common.c, include/common.h, tests/nutlogtest.c, NEWS.adoc: introduce snprintf\_dynamic() and related methods [#2450] Mitigate the inherent insecurity of dynamically constructed formatting strings vs. a fixed vararg list with its amounts and types of variables printed by this or that method and pre-compiled in the program. \* minimize\_formatting\_string() with caller-specified buffer; \* minimize\_formatting\_string\_staticbuf() for one-shot use-cases; \* validate\_formatting\_string() to compare a dynamic and expected formatting strings; \* vsnprintf\_dynamic(), vsnprintfcat\_dynamic() for practical applications (with fixed va\_list argument); \* snprintf\_dynamic(), snprintfcat\_dynamic(), mkstr\_dynamic() for practical applications (with ... variadic arguments); \* added vsnprintfcat() with fixed va\_list argument, for good measure.

**2.140 2022-08-27 Jim Klimov <jimklimov+nut@gmail.com>**

- drivers/usbhid-ups.c: hid\_ups\_walk(): for HU\_WALKMODE\_FULL\_UPDATE with "pollonly" mode, re-read HU\_FLAG\_SEMI\_STALE and HU\_FLAG\_STATIC entries to detect "Driver stale" situations [#1624]

**2.141 2022-04-27 minfrin <minfrin@users.noreply.github.com>**

- drivers/common\_voltronic-crc.c: Remove warning: Comparison between byte of type unsigned short and len of wider type size\_t

- drivers/Makefile.am, drivers/common\_voltronic-crc.c, drivers/common\_voltronic-crc.h, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx.h, drivers/nutdrv\_qx\_voltronic-axpert.c, drivers/nutdrv\_qx\_voltronic-axpert.h: WIP: Support for Voltronic Axpert P30 protocol inverters (main) Adds support for the Voltronic Axpert inverters based on the P30 protocol. Updated the nutdrv\_qx driver to support the optional sending of commands protected by CRC. Initial support for query commands. Based on work done in the Voltronic Sunny driver in [https://github.com/nickma82/nut/tree/nutdrv\\_qx\\_voltronic-sunny\\_rebased%2Bcommand](https://github.com/nickma82/nut/tree/nutdrv_qx_voltronic-sunny_rebased%2Bcommand) Still TODO: Implement commands to write to the inverter. Remove commented code originating from sunny driver. Further testing. Update docs (manpages, acknowledgements...)

#### 2.142 2022-02-09 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>

- drivers/ve-direct.c: mark ve\_\*( ) methods as static
- drivers/ve-direct.c: fix trailing white-space and C+\\+-style comments
- 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

#### 2.143 2022-02-08 Jim Klimov <[jim@jimklimov.com](mailto: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

#### 2.144 2022-02-07 Jim Klimov <[jim@jimklimov.com](mailto: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](#))

#### 2.145 2022-02-06 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>

- docs/packager-guide.txt: mention ipmi and modbus drivers as separate packaging goals

#### 2.146 2022-02-05 Jim Klimov <[jim@jimklimov.com](mailto:jim@jimklimov.com)>

- docs/nut.dict, docs/support.txt: docs/support.txt: detail about 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/macosx-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/tripplite-hid.c, drivers/tripplite.c, drivers/tripplite\_usb.c, drivers/tripplitesu.c, drivers/upscode2.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

#### 2.147 2020-11-07 Jim Klimov <jimklimov@gmail.com>

- drivers/ve-direct.c: Update ve-direct.c Small spelling fix (ret\_lenght ⇒ ret\_length)
- docs/man/ve-direct.txt: Update ve-direct.txt Minor whitespace fixes

#### 2.148 2017-06-06 Petr Kubanek <petr@kubanek.net>

- docs/nut.dict: added Petr and ve to spellcheck dictionary
- drivers/ve-direct.c: fixed for C99 fpr loop
- docs/nut.dict: added Kubanek to dict

#### 2.149 2017-03-16 Petr Kubanek <petr@kubanek.net>

- drivers/ve-direct.c: commands to set/get things
- drivers/ve-direct.c: commands to set/get things

#### 2.150 2017-03-15 Petr Kubanek <petr@pc115b.fzu.cz>

- drivers/ve-direct.c: HEX checksums
- drivers/ve-direct.c: HEX checksums

#### 2.151 2017-03-14 Petr Kubanek <petr@pc115b.fzu.cz>

- drivers/ve-direct.c: reply to commands
  - drivers/ve-direct.c: poll\_interval, better input buffer handling
  - drivers/ve-direct.c: fixed problem with reading from driver by lines
  - drivers/ve-direct.c: reply to commands
  - drivers/ve-direct.c: poll\_interval, better input buffer handling
  - drivers/ve-direct.c: fixed problem with reading from driver by lines
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**2.152 2017-03-14 Petr Kubanek <[petr@kubanek.net](mailto:petr@kubanek.net)>**

- drivers/ve-direct.c: fix process text buffer
- docs/man/Makefile.am, docs/man/ve-direct.txt, drivers/ve-direct.c: added ping command
- drivers/ve-direct.c: fix process text buffer
- docs/man/Makefile.am, docs/man/ve-direct.txt, drivers/ve-direct.c: added ping command

**2.153 2017-03-13 Petr Kubanek <[petr@kubanek.net](mailto:petr@kubanek.net)>**

- drivers/Makefile.am, drivers/ve-direct.c: basic thinks works
  - drivers/Makefile.am, drivers/ve-direct.c: basic thinks works
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