

# **Network UPS Tools Change Log**

NUT project community contributors

REVISION HISTORY			
NUMBER	DATE	DESCRIPTION	NAME
2.8.4.42 2.8.4.132-132+g87008cfc7	2025-09-23	Current release snapshot of Network UPS Tools (NUT).	
2.8.4	2025-08-07	Fixed a few regressions introduced by release v2.8.3. Some changes to docs and recipes, especially for parallel builds. Updated NUT SEMVER definition some more. Some rounds of code-hardening project. Numerous driver updates, some new ones introduced.	JK
2.8.3	2025-04-07	Some changes to docs and recipes, libupsclient API and functionality. Updated NUT SEMVER definition and added scripting around it. Groundwork for vendor-defined status and INTCMD 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

**REVISION HISTORY**

NUMBER	DATE	DESCRIPTION	NAME
2.8.0	2022-04-26	Change of maintainer. Many changes to API, docs (both style and content), and recipes, with a stress on non-regression test-ability, run-time debug-ability, general codebase maintainability, as well as OS integrations (notably nut-driver-enumerator for systemd and SMF service instance maintenance). Added a lot in area of CI support and documented pre-requisite package lists for numerous platforms, and CI agent set-up. Added libusb-1.x support and many new driver categories (and drivers), and daisychain device connection support. Instant commands enhanced with TRACKING to enable protocol-based waiting for completion of a particular INSTCMD or SET operation.	JK
2.7.4	2016-03-09	NUT variables namespace updated, in particular for outlet groups, alarms and thresholds, ATS devices, and battery.charger.status to supersede CHRG and DISCHRG flags published in ups.status readings. NUT network protocol extended with NUMBER type; some API changes.	AQ
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

REVISION HISTORY			
NUMBER	DATE	DESCRIPTION	NAME
2.6.5	2012-08-08	New macosx-ups driver, new implementation of mge-shut driver. NUT variables namespace updated. Docs cleaned up and revised.	AQ
2.6.4	2012-05-31	New NUT network protocol commands (LIST CLIENTS, LIST RANGE and NETVER), and socket protocol commands (ADDRANGE, DELRANGE). NUT variables namespace updated. Introduced nut-recorder tool.	AQ
2.6.3	2012-01-04	No substantial changes to documentation.	AQ
2.6.2	2011-09-15	Introduced nut-scanner tool and nut-ipmipsu driver, systemd support, and a new apcsmart implementation.	AQ
2.6.1	2011-06-01	Introduced default.* and override.* optional settings in ups.conf, an ups.efficiency report, and outlet.0 special handling.	AQ
2.6.0	2011-01-14	First release of AsciiDoc documentation for Network UPS Tools (NUT).	AQ

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## 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 `v2.8.4..HEAD` (commits `434cb36a3..87008cfc7`).

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### 2.1 2025-09-23 Jim Klimov <jimklimov+nut@gmail.com>

- `ci_build.sh`: honour `CI_CCACHE_USE=no` more diligently
- `NEWS.adoc`, `clients/upssched.c`, `conf/upssched.conf.sample.in`, `docs/man/upssched.conf.txt`: `clients/upssched.c`: revise `CANCEL-TIMER`, introduce `CANCEL-TIMER-MATCHED` [#3097]
- `scripts/misc/notifyme-debug`: fix shell typo
- `clients/upssched.c`: fix `START-TIMER-SHARED` [#3097]
- `clients/upssched.c`: revise logging of timer events [#3097]

### 2.2 2025-09-22 Jim Klimov <jimklimov+nut@gmail.com>

- `clients/upssched.c`: `start_timer()`: revise `START-TIMER-SHARED` behavior [#3097]
  - `clients/upssched.c`: fix CI suggestions [#3097]
  - `clients/upssched.c`: log-trace through, and fix, `removetimers()` and connection loss due to a recent bug there [#3097]
  - `clients/upssched.c`: `send_to_one()`: improve debugging [#3097]
  - `clients/upssched.c`: `collect_string()`: fix the iteration logic [#3097]
  - `clients/upssched.c`, `docs/man/upssched.txt`, `NEWS.adoc`: introduce `upssched -l` mode [#3097]
  - `docs/man/upssched.conf.txt`: `PIPEFN`: chain the paragraphs of one description (indent them correctly) [#3097]
  - `NEWS.adoc`, `clients/upssched.c`, `conf/upssched.conf.sample.in`, `docs/man/upssched.conf.txt`, `tests/NIT/upssched.conf.in`: `clients/upssched.c`, `conf/upssched.conf.sample.in`, `docs/man/upssched.conf.txt`, `NEWS.adoc`: introduce support for `DEBUG_MIN` in `upssched.conf` [#3097]
  - `clients/upssched.c`: update © header with major contributors
  - `clients/upssched.c`: in messages that refer to `upsmon`, append its man page section
  - `clients/upssched.c`, `NEWS.adoc`, `conf/upssched.conf.sample.in`, `docs/man/upssched.conf.txt`: let timers pass forward the `UP-SNAME` and `NOTIFYTYPE` again - now with relevant values; introduce `START-TIMER-SHARED` [#3092, #3097]
-

### 2.3 2025-09-21 Jim Klimov <jimklimov+nut@gmail.com>

- clients/upssched.c: update comments [#3092]
- clients/upssched.c: rename global upsname ⇒ ups\_name to be on par with global notify\_type [#3092]
- docs/man/nut.txt, docs/nut.dict: describe NUT layer 3.5 - role of the drivers during shutdown
- docs/man/nut.txt: suggest more packaged user-names for NUT daemons
- NEWS.adoc, drivers/nutdrv\_qx.c, drivers/nutdrv\_qx.h: drivers/nutdrv\_qx.{c,h}, NEWS.adoc: define an internal QX\_FLAG\_MAPPING introduce analyze\_mapping\_usage() method [#3095]
- drivers/nutdrv\_qx.c: fix whitespace
- drivers/usbhid-ups.c: analyze\_mapping\_usage(): rephrase last suggestion with also checking and building recent NUT code [#3082, #3095]

### 2.4 2025-09-19 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/snmp-ups.c, drivers/usbhid-ups.c: drivers/snmp-ups.c: account SU\_FLAG\_MAPPING\_HANDLED and do analyze\_mapping\_usage() method [#3095]
- NEWS.adoc, drivers/snmp-ups.h: drivers/snmp-ups.{c,h}, NEWS.adoc: define an internal SU\_FLAG\_MAPPING\_HANDLED [#3095]
- drivers/snmp-ups.c: fix markup
- drivers/snmp-ups.h: modernize a few comments
- drivers/snmp-ups.c: suggest in log how to improve a driver where only IETF auto-matched [#3095]
- drivers/hidtypes.h: update a comment [#3082]
- drivers/usbhid-ups.c: fix whitespace
- drivers/usbhid-ups.c: offload analyze\_mapping\_usage() to a method [#3082, #3095] Note the activity is now still limited to when debug logging is enabled.

### 2.5 2025-09-18 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/usbhid-ups.c, NEWS.adoc: suggest in log how to improve a driver with too few mappings defined/used [#3082]
- NEWS.adoc, docs/ci-farm-do-setup.adoc, docs/ci-farm-lxc-setup.txt, docs/config-notes.txt, docs/config-prereqs.txt, docs/configure.txt, docs/daisychain.txt, docs/design.txt, docs/documentation.txt, docs/download.txt, docs/features.txt, docs/hid-subdrivers.txt, docs/net-protocol.txt, docs/new-clients.txt, docs/new-drivers.txt, docs/nut-names.txt, docs/nut-versioning.adoc, docs/nutdrv\_qx-subdrivers.txt, docs/outlets.txt, docs/scheduling.txt, docs/security.txt, docs/snmp-subdrivers.txt, docs/sock-protocol.txt, docs/support.txt: docs/\*.txt: add asciidoc comments with links to nut-website rendered contents of most interesting pages
- docs/maintainer-guide.txt: avoid pushing final release tags to upstream more than once, really!
- scripts/Makefile.am: do not EXTRA\_DIST the generated scripts/Windows/Makefile — the .in template suffices Thanks to @gdt for the heads-up.

## 2.6 2025-09-10 Jim Klimov <jimklimov+nut@gmail.com>

- scripts/python/module/Makefile.am: emit log note that .pypi-dist-pip-wheel goal does not produce sdist archives [#3056]
- scripts/python/module/Makefile.am: fix typo in comment
- NEWS.adoc: fixed PyPI publication to include sdist tarball [#3056]
- .github/workflows/PyNUTClient.yml: fix shell markup [#3056]
- .github/workflows/PyNUTClient.yml: actually install "setuptools" module with "pip" [#3056]
- .github/workflows/PyNUTClient.yml: allow manually running the GHA task

## 2.7 2025-09-08 Jim Klimov <jimklimov+nut@gmail.com>

- docs/hid-subdrivers.txt, docs/nut.dict: docs/hid-subdrivers.txt: updating existing drivers: suggest newly logged discrepancies of "seen vs. used" data [#3082]
- drivers/nutdrv\_atcl\_usb.c: when suggesting other drivers and configs, refer to build-aware man page sections
- docs/hid-subdrivers.txt: fix a bit of markup
- clients/upslog.c, NEWS.adoc: update help() and failure messages to suggest -m \*, -
- drivers/usbhid-ups.c: process\_boolean\_info(): handle OB=!OL and OL=!OB here (when the bit is being set) [#3080]
- drivers/usbhid-ups.c: upsdv\_initups(): upsdvbugx() at verbosity 0 (always) if there are too few mappings known or used via USB HID [#3082]
- drivers/apc-hid.c, NEWS.adoc, scripts/upower/95-upower-hid.hwdb: declare support for APC 0x051d:0x0005 as a USB HID device [#3047]
- drivers/nutdrv\_atcl\_usb.c: upsdv\_initups() failure mode: suggest using nutdrv\_qx(8) or blazer\_usb(8) driver instead [#1021, #2152 follow-up]
- data/driver.list.in: add Voltronic Power USB ID 0665:5161 as nutdrv\_qx supported (per driver source comments)
- data/driver.list.in: add "Various" USB interface chip names or IDs 0665:5161 and 0001:0000 as nutdrv\_qx or rarely nutdrv\_atcl\_usb supported
- data/driver.list.in: add Salicru SPS 500 ONE USB ID 0665:5161 as nutdrv\_qx supported [#3079]
- data/driver.list.in: add Belkin USB ID 0665:5161 as nutdrv\_qx supported (per driver source comments)
- drivers/usbhid-ups.c: upsdv\_initups(): fix variable name for the snprintf() return value [#3083]
- drivers/usbhid-ups.c: upsdv\_initups(): also report how many hid2nut mappings are known vs. how many were used using USB HID [#3082]
- drivers/usbhid-ups.c: upsdv\_initups(): generalize the report of unused report descriptor entries to "completely unused" vs. "partially unused" (e.g. Feature vs Input) [#3082]
- drivers/usbhid-ups.c, drivers/hidtypes.h, NEWS.adoc: check if the subdriver code (mappings) and the device report sit together well [#3082]
- drivers/usbhid-ups.c: callback(): update logged message that not only Manufacturer, but possibly an explicit Model, may be not-supported
- NEWS.adoc: update about usbhid-ups suggestion to iterate "subdriver" values
- drivers/usbhid-ups.c: upsdv\_initups(): check that if no ups\_status bit was set, suggest that wrong "subdriver" is used then [#3080, #3061, #2058]



- drivers/usbhid-ups.c: callback(): add log messages to stress that the dump of Report Descriptor actually seen, and its later hid\_ups\_walk() with a particular subdriver, may not match up well [#3061]
- drivers/usbhid-ups.c: upsdrv\_initups(): add log messages to help trace logical progress through the code [#3061]
- drivers/usbhid-ups.c: possibly\_supported(): suggest iterating "subdriver" values [#2058]
- NEWS.adoc, drivers/usbhid-ups.c, drivers/usbhid-ups.h: drivers/usbhid-ups.c: do not assume that "!online"=="offline" [#3080]
- drivers/usbhid-ups.c: fix indentation (cosmetic)
- drivers/usbhid-ups.c: ups\_status\_set(): revise code markup/style

## 2.8 2025-09-07 Jim Klimov <jimklimov+nut@gmail.com>

- drivers/mge-hid.c, NEWS.adoc: Improved support for Eaton 5S1500LCD (US version). [#2380]
- NEWS.adoc, docs/config-prereqs.txt, docs/configure.txt, docs/developers.txt, docs/download.txt, docs/maintainer-guide.txt, docs/man/apcsmart.txt, docs/man/belkin.txt, docs/man/genericups.txt, docs/man/mge-shut.txt, docs/man/upsdrvsvctl.txt, docs/man/upsmon.conf.txt, docs/man/upssched.conf.txt, docs/man/upsset.cgi.txt, docs/man/usbhid-ups.txt, docs/new-drivers.txt, docs/outlets.txt, docs/packager-guide.txt, docs/scheduling.txt, scripts/Windows/README.adoc, scripts/external\_apis/enphase/README.adoc: Reword multiple docs to avoid admonition blocks with invalid sentences
- docs/Makefile.am: spellcheck: help avoid admonition blocks with invalid sentences (after rendering as a box)
- docs/download.txt: revise markup for Windows downloads
- docs/download.txt: revise info about/from Repology
- docs/download.txt: revise note about official releases
- docs/download.txt: revise part about source archives from github

## 2.9 2025-09-06 desertwitch <24509509+desertwitch@users.noreply.github.com>

- drivers/nutdrv\_qx\_megatec.c: trim battery.runtime variable

## 2.10 2025-09-05 Jim Klimov <jimklimov+nut@gmail.com>

- .github/workflows/codeql.yml: fix syntax for codeql queries

## 2.11 2025-09-04 Jim Klimov <jimklimov+nut@gmail.com>

- .github/workflows/codeql.yml: Revert ".github/workflows/codeql.yml: use modern "language" ID "c-cpp"" This reverts commit 972358ec7663007419f0b1926d30f9f5a494d910.
  - .github/workflows/codeql.yml: enable ccache per scenario, follow experience from wmnut#24
  - .github/workflows/codeql.yml: enable more codeql queries
  - .github/workflows/codeql.yml: relocate comments, drop dead code
  - .github/workflows/codeql.yml: avoid man-db update in APT actions
  - .github/workflows/codeql.yml: report the location and version of compiler used
  - .github/workflows/codeql.yml: add a way to vary matrix.build-mode for codeql
  - .github/workflows/codeql.yml: only init CodeQL just before the actual build, not before other filesystem changes
  - .github/workflows/codeql.yml: use modern "language" ID "c-cpp" "c" and "cpp" are older names, now aliases to this one
  - .github/workflows/codeql.yml: revise markup and comments of the matrix definition
  - .github/workflows/codeql.yml: Allow manually running the action, e.g. if disabled after some quietness in the source
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**2.12 2025-09-03 Laurent Bigonville <bigon@bigon.be>**

- docs/Makefile.am: Fix installation of the pdf files

**2.13 2025-09-03 Jim Klimov <jimklimov+nut@gmail.com>**

- docs/developers.txt: clarify use of "void" argument lists

**2.14 2025-09-02 Jim Klimov <jimklimov+nut@gmail.com>**

- tools/nut-usbinfopl: update comment
- tools/nut-usbinfopl: use binmode for written files to have same markup regardless of builder OS
- ci\_build.sh: when reporting host envvars, use backslashes to facilitate copy-paste reproduction of CI builds
- ci\_build.sh: when reporting CONFIGURING NUT, use backslashes to facilitate copy-paste reproduction of CI builds
- configure.ac, docs/configure.txt, m4/nut\_check\_python.m4, NEWS.adoc: allow to configure Python module install location more generally [#3062]
- scripts/python/app/NUT-Monitor-py2gtk2.in, scripts/python/app/NUT-Monitor-py3qt5.in, scripts/python/app/NUT-Monitor-py3qt6.in, scripts/python/app/NUT-Monitor-py\*.in: try to honour a customized PyNUT(Client) module path [#3062]

**2.15 2025-09-02 Hector Martin <marcan@marcan.st>**

- drivers/apc\_modbus.c: apc\_modbus: Fix invalid memory access for USB vendor/product/serial

**2.16 2025-08-31 Jim Klimov <jimklimov+nut@gmail.com>**

- configure.ac, docs/configure.txt, m4/nut\_check\_python.m4, NEWS.adoc: allow to configure PyNUT(Client) install location [#3062]

**2.17 2025-08-09 Colin Dean <colindean@users.noreply.github.com>**

- docs/download.txt, docs/nut.dict: Include macOS with Mac OS X Apple shortened the name to "OS X" in 2011 and then changed it to "macOS" in 2016 to align with the branding of Apple's other operating systems. <https://en.wikipedia.org/w/index.php?title=MacOS&oldid=1304698699>
- docs/download.txt: Update download.txt with link to Homebrew formula for macOS nut has been in Homebrew since 2014.

**2.18 2025-08-08 Jim Klimov <jimklimov+nut@gmail.com>**

- NEWS.adoc, UPGRADING.adoc: prepare for v2.8.5.x iterations
  - NEWS.adoc, UPGRADING.adoc, docs/docinfo.xml.in: Revert "NEWS.adoc, UPGRADING.adoc, docs/docinfo.xml.in: finalize text before NUT v2.8.4 release" This reverts commit 8f14140bbc395baa108bd06a9f664bd0a6f00bc8.
  - tools/gitlog2version.sh: for development, set fallback NUT\_VERSION\_DEFAULT=2.8.4.1
  - configure.ac: for now do not require (pre-)release tagged commits to build changelog by default - keep doing it on systems where we can though
  - configure.ac: rephrase the message about --enable-docs-changelog [#3019, #3053]
  - ci\_build.sh: limit default "configure --enable-docs-changelog=no" for CI builds on systems where CANBUILD\_DOCS\_ALL!=yes
-

- ci\_build.sh: add support for WITH\_CHANGELOG envvar to pass down as configure --enable-docs-changelog=...
- .github/workflows/codeql.yml: configure --disable-docs-changelog in CI builds
- configure.ac: for (pre-)release builds we default nut\_enable\_docs\_changelog auto⇒yes - do so loudly, and default --with-docman⇒auto as well for all builds to have a chance to try this
- docs/maintainer-guide.txt: update the guide
- docs/maintainer-guide.txt: commit that in tools/gitlog2version.sh: for development, set fallback NUT\_VERSION\_DEFAULT=X.Y.Z.
- docs/maintainer-guide.txt: remind to double-check that release NUT\_VERSION\_DEFAULT in tools/gitlog2version.sh must be a triplet

## 2.19 2024-01-31 Charles Lepple <clepple+nut@gmail.com>

- drivers/tripplite\_usb.c: add battery.charge for Protocol 3017 Reference: [#2258](#)

## 2.20 2024-01-25 Charles Lepple <clepple+nut@gmail.com>

- drivers/tripplite\_usb.c: Protocol 3017 adjustments Reference: [#2258](#) SMX1200XLHG is 230V / 50 Hz
-