



u-center v18.10

GNSS evaluation software for Windows

Release Note

Abstract

This release note contains general information, features, improvements, changes and known limitations for u-center v18.10.

Document Information

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1 General Information

The u-center GNSS evaluation software for automotive, mobile terminal and infrastructure applications provides a powerful tool for evaluation, performance analysis and configuration of the u-blox GNSS receiver.

1.1 Released Files

The following table lists the files that have been released.

File	Description
u-center_v18.10.exe	u-center installer including u-blox GNSS Standard Driver for Windows v1.2.0.8 (win 7 and 8 only), u-blox GNSS Sensor Device Driver for Windows v2.40 (win 7 and 8 only)
u-center-v18.10_ReleaseNote_(UBX-18059860).pdf	Public release note
u-center_UserGuide_(UBX-13005250).pdf	User guide

1.2 Version and Checksum of Files

The following table lists the versions and the checksums of the [Released Files](#).

File	Version	MD5
u-blox GNSS Standard Driver for Windows	1.2.0.8	
u-Center.exe	18.10	f87e572328c145ea30d26b8129db4c9c
flash.xml	200037	3e1ee5ff38c44629fc8ffb85afe2c42a
flash.xml_changelog.txt		bf32c86103d831a3e6e1b34f4ff81520
flash.txt	101098	b49a4b5d33efa113737208e788cf3afc
NMEA.dll	18.10	95527001c06a79ffef6964d8be478c3a
RTCM.dll	18.10	a812b2386ff0ee3aae9d0aecb3700ef9
sqlite3.dll	3.21.0.0	07fb6d31f37fb1b4164bef301306c288
ubloxgnssusbcons.exe	18.4.0.0	e8a2bc1caacaf845268acf778ded4f5b
UBX.dll	18.10	7961c52f56f206f082c1ae59a7d020da
ubxfwupdate.exe	18.09	

1.3 Released Documentation

- Public Release Note (UBX-18059860)
- u-center User Guide (UBX-13005250)

2 Features

2.1 Supported Microsoft Windows versions

u-center v18.10 runs on Microsoft Windows Vista and later versions up to (including) Windows 10.

2.2 Supported Receiver Generations

u-center v18.10 can update the firmware of the following receiver generations:

- u-blox 5 with ROM 3.00, ROM 4.00, ROM 5.00
- u-blox 6 with ROM 6.00, ROM 6.02, ROM 7.03
- u-blox 7 with ROM 0.10, ROM 0.11, ROM 0.14, ROM 1.00
- u-blox 8/M8 with ROM 0.21, ROM 0.22, ROM 2.01, ROM 3.01
- u-blox F9 with ROM 0.30, ROM 0.40, ROM 1.01



u-blox 5 receiver support is end of life and will be removed in one of the next versions.

2.3 Supported Protocol Specification Version

u-center v18.10 supports the u-blox protocol specification from version 10.00 and later versions up to (including) version 27.

2.4 External hardware support

The following external hardware is supported to interface with the receiver:

Interface	Device	DLL version
DDC/I2C	Totalphase Aardvark I2C/SPI Host Adapter	aardvark.dll v5.15 for Windows 32-bit
DDC/I2C	Diolan U2C-12 USB-I2C/SPI/GPIO Adapter	i2cbrdg.dll v1.0.0.9 for Windows 32-bit
SPI	Totalphase Aardvark I2C/SPI Host Adapter	aardvark.dll v5.15 for Windows 32-bit
SPI	Totalphase Cheetah SPI Host Adapter	aardvark.dll v5.15 for Windows 32-bit
SPI	Diolan U2C-12 USB-I2C/SPI/GPIO Adapter	i2cbrdg.dll v1.0.0.9 for Windows 32-bit

2.5 Multiple GNSS AssistNow Service

u-center v18.10 includes the multiple GNSS AssistNow Service (libMGA) version 1.10.

2.6 Debug Messages

The following messages will be enabled or polled when pressing the "Debug Messages" button:

- Any UBX-INF
- UBX-MON-MSGPP
- UBX-NAV-CLOCK
- UBX-NAV-PVT
- UBX-NAV-SIG
- UBX-NAV-ORB
- UBX-NAV-SAT
- UBX-RXM-SVSI (every 30 seconds)
- UBX-MON-HW (polled)

- UBX-MON-EXCEPT (polled)
- and additional u-blox debug messages

The following messages will additionally be enabled or polled when pressing the "Debug Messages" button for ADR product line:

- UBX-ESF-MEAS
- UBX-ESF-STATUS

The following messages will additionally be enabled or polled when pressing the "Debug Messages" button for HPG product line:

- UBX-NAV-RELPOSNED
- UBX-NAV-SVIN
- UBX-MON-IO
- UBX-NAV-SOL
- UBX-NAV-AOPSTATUS

The following messages will additionally be enabled or polled when pressing the "Debug Messages" button for SPG product line:

- UBX-MON-IO
- UBX-NAV-SOL
- UBX-NAV-AOPSTATUS

3 Improvements and Changes

3.1 Version 18.10

- Improvement: New algorithm for epoch detection implemented.
- Improvement: Updated icons to be compliant with new u-blox Corporate Identity.
- Bug fix: Fixed crash in MGA Offline transfer to receiver.
- Bug fix: Fixed display of generation 9 chip ID in UBX-CFG-OTP message.
- Bug fix: Added request interval field to ntrip client config dialog to allow the user to specify the interval time between ntrip client requests. Also fixed bug so the current position of the receiver is sent if a "fixed" location is not being used.

3.2 Version 18.09

- Bug fix: Child processes will now automatically be killed if u-center terminates unexpectedly.
- Improvement: Added support for new message UBX-MON-HW3.
- Improvement: Added support for new message UBX-MON-RF.

3.3 Version 18.08

- Improvement: The visible gap until the new map is loaded while using the map view is removed.
- Improvement: The "Info" toolbar button in the GNSS driver view has been activated.
- Bug fix: A single SV is now visualized in satellite views (satellite level and satellite level history).
- Improvement: Added option in the config Tool to sort groups and items alphabetically. Added search facility to find groups/items containing a text string.
- Improvement: Updated UI view on epoch detection; views enable reading consistent data from the DB.
- Bug fix: No more crashes while opening the u-center.
- Bug fix: No more crashes caused by Satellite ground track view.

3.4 Version 18.06

- Update of CFG-VALSET: Added CFG-MSGOUT-RTCM3X_TYPE1097.
- Update of table view, statistic view, chart view, histogram view: Added PSM state (Power Save Mode).
- Bug fix: UBX-CFG-TP5 message view fixed so that duty cycle shows correctly when toggling between length/duty cycle of the Time Pulse (TP).
- Bug fix: Fix for crashes during download of MGA online data.
- Update of UBX-CFG-SPT and UBX-MON-SPT: Added support for LSM6DSL sensor.
- Update of UBX-MON-HW: Fixes on scope and names of virtual pins for u-blox 9.
- Update of mechanism for properly closing the crash reporting application, which was randomly crashing while being closed.
- Update of CFG-VALDEL, CFG-VALGET, CFG-VALSET messages: Trimmed layout, change in handling of hex displayed values; i.e. correct handling of negative values.
- Update in storing the messages coming from/to receiver; added new database.
- Update of Player menu: New menu and toolbar items added which enable user to step backward in time one step at a time.
- Bug fix: In the CFG-SBAS SV122, the new Australian SBAS is removed from WAAS.
- Update in multi-constellation and multi-band visualization by using NMEA (4.1) messages.

- Update of NTRIP server screen: Added two tabs. First tab contains the basic configuration (port only) and the second tab contains the rest of the configuration options.
- Update of Reference of RTCM: Version 3.2 changed to version 3.3.
- Improvement in Satellite signal information clean up: primarily takes care of unwanted flickering of the views and consistent data coming from different messages carrying signal information.
- BugSplat feature has been added for collecting crash reports.
- Update of UBX-CFG-NAV5: Now supports bike as a dynamic platform model, for receivers with prot-ver = 19.20.
- Update of UBX-CFG-ESFLA: A type 4 Lever Arm related IMU (inertial measurement unit) to CRP (configurable reference point) is introduced.
- Update of UBX-CFG-SLAS and UBX-NAV-SLAS: Audience changed to PUB.
- Update of debug messages: The UBX-NAV-SIG message added; to support debugging for multi-band products.
- Bug fix: Update of UBX-SUBX-TCI, fixed the disappearing lines when paused. Fixed chip 1 view.
- Update of NMEA-GRS: Added descriptive GNSS ids and signal ids.
- Update of NMEA-GBS: Added descriptive GNSS ids and signal ids.
- As of April 2018, the u-center release number has a new release version definition, where the current "year.month" defines the release number. For example, the version number for April, 2018 release is 18.04.

3.5 Version 8.29

- Update of UBX-CFG-PM2: Updated version 3 option names for the optTarget field.
- Update of UBX-ESF-MEAS: Added combo box to allow selection of which data id to visualize.
- Update of UBX-CFG-PRT: Data bit, stop bit, parity and bit order control now public.
- Update of UBX-CFG-OPT: Updated field names.
- Rename QZSS SAIF and LEX signals. QZSS signal SAIF -> L1S. QZSS signals LEXS, LEXL -> L61D, L61E. Added QZSS signals L62D, L6E.
- Bug fix for debug messages: Now enabled regardless of the audience.
- Bug fix for deviation plot view: Max zoom fix.
- Bug fix for satellite view: Visualization of signals for multi-frequency case.
- Bug fix for corrupted messages in log files when sending information to receiver.
- Bug fix: u-center now recognizes Windows 10 USB to Serial driver.
- Update in HTTP response to support Google Earth Pro.
- QZSS signal name changes: QZSS_SAIF->QZSS_L1S and QZSS_LEX->QZSS_L61
- Improved NTRIP client.
- Tidied up UI issues in the NTRIP server dialog: Can enter periods correctly. Confusing "Store" check box removed.

3.6 Version 8.28

- Update of UBX-DBG-NAV: Added SLAS RAIM source.
- Update of UBX-MON-HW: New pins added.
- Improved NTRIP server dialog UI.
- Improved NTRIP client dialog UI.
- Improved NTRIP server stability and bug fixes.
- Improved NTRIP client reconnection.
- Added firmware update support for u-blox next generation products, including "update to ram" and no fis features.
- UI improvements for u-blox F9 in the firmware update tool dialogs.
- Updated the sqlite lib to version 3.21.

- Google server can now be started with just a loaded log file.
- Improved NTRIP client reconnection to caster.

4 Known Limitations

4.1 Known Issues

- Enumerating the ports on a computer with many ports can take a long time
- Using the protocol filter with "silent" or "no receiver" results in an empty message tree

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