RELEASE NOTES

Trimble® Infrastructure GNSS Series Receivers

These release notes describe the latest improvements made to the Trimble® Infrastructure GNSS series receiver.

Introduction

These release notes describe the improvements made to the following Trimble® Infrastructure series receivers:

- NetR3

- NetR5™

- NetR8™

- NetR9™

With this release, these products can use version 4.70 firmware. Note that not all receivers support all features contained within this firmware release. The supported features will depend on the receiver model and options installed.

To load and use firmware version 4.70, you must have a valid firmware warranty, dated March 2012 or more recent. If necessary, contact your Trimble dealer to purchase a warranty.

Before you perform a firmware upgrade, download and backup any files or configuration settings.

New features and changes

General

- General operating system stability improvements.
- RTK engine processor usage reduced.
- Minor translation updates.

Data formats

- Improved QZSS almanac handling. This resolves a rare issue where a bad almanac could cause a gap in T02/RT27 data.
- RTCM version 3 no longer waits for UTC offset data to output valid GPS RTCM data after all almanac and ephemeris data has been cleared.
- BINEX:
    - Improved handling of SBAS L5 observations.
    - Web UI now requires BINEX measurements to be enabled before MetaData can be selected.
    - Now outputs receiver ID upon initial connection and every 30 minutes thereafter.
- RT17/27 now outputs receiver ID upon initial connection and then every 30 minutes on the hour.
- NMEA:
    - Resolves one to two missing NMEA epochs when switching OmniSTAR™ modes.
    - VRS™ operation now results in output of NMEA GGA to eight decimal places.
- T02 files updated to support RTX derived positions.

Data logging

- Resolves rare issue of logging memory not being recognized.
- Improved QZSS almanac handling. This resolves a rare issue where a bad almanac could cause a gap in T02/RT27 data.
- Resolves issue where RINEX version 3 ephemeris files could have an incorrect month listed in the header.
- Email and FTP Push data files now contain the exact same number of characters. Previously these would differ by one character.

Tracking

- Enhanced signal spoofing protection.
- Improved channel allocations for GNSS tracking.
- Enhanced Galileo ephemeris handling.
- Improved cold start time when operating in low signal level/challenging environments.

- Resolves the potential to drop SBAS observables on week rollover.
- Improved QZSS L1C C/No.
- Galileo GIOVE A/B satellites removed from satellite list as these satellites are now decommissioned.
- Expanded list of SBAS satellites IDs to accommodate future planned satellites.
- Expanded list of RTX satellites.
- General satellite constellation updates.
- Improved QZSS almanac handling.

OmniSTAR

- Updated OmniSTAR™ satellite list.
- Updated OmniSTAR library.

Application files

- Minor updates to resolve the potential for issues when loading an application file to a receiver that does not support all options in the application file.
- Application files feature improved records for satellite enable/disable settings.

Networking

- This release contains improved network security enhancements.
- HTTPS now supports 128bit encryption.
- General TCP stability improvements.
- Resolves rare issue where a firmware or clone file upload may fail over HTTPS.
- Resolves issue where FTP Push functionality could get hung on a single file which was partially written to the FTP server.
- Improved UPnP handling.
- TCP/IP ports now support up to 50 TCP connections to a single port.
- NTP Server and Client functionality split into two separate tasks to reduce dependencies.

Web User Interface and front panel

- Updated Web User Interface (UI). The Web UI has been refreshed to maximize the screen area available to display data. The menu bar can now be hidden to further increase the available screen size. Additionally, the Web UI now uses a "cookie" to recall the last visited page, allowing you to return to it.
- Position Monitoring updates:
    - Now allows for simultaneous input and output of correction messages.

- Shows separate RTK motion state and receiver motion state only when the Position Monitoring option bit is installed. When *Position Monitoring* is enabled, the RTK engine motion state is set to kinematic while the receiver motion state remains as configured. The RTK engine motion state status appears in the *Receiver Configuration / Position* page. When the position monitor is disabled, the RTK motion state is set back to the receiver motion state.

- Shows the reference position entered in the position monitoring page in the position graph if it is different from the reference station position in the reference station page.

- When *Position Monitoring* is enabled, it suppresses front panel warning message if receiving and transmitting correction messages at the same time.

- Improved GUI bandwidth and rendering.

- RINEX Header information no longer visible to anonymous access.

- Updates to *Correction Controls* to resolve an issue where the receiver may not apply the settings and use the incorrect correction source.

- Updates to the *Daily Statistics* email alert. Email now displays *Current Statistics* if the receiver has not ran for the full 24 hour period.

- *Firmware Upgrade Check* feature now returns response to query showing either no upgrade available, upgrade available, or upgrade available but not in warranty.

Upgrade procedure

Make sure that the receiver firmware warranty date is March 2012 or later.

Use one of the following methods:

- WinFlash utility: Use the latest version that is available with the version 4.70 Web package.

- Receiver Web User Interface: Make sure that the receiver is already running firmware version 4.xx or later. Download and install the version 4.70 *.TIMG file.

Legal notices

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Release notice

This is the January 2013 release (Revision A) of the *Infrastructure GNSS Receivers Release Notes*. It applies to version 4.70 of the receiver firmware.

Product warranty information

For applicable product warranty information, please refer to the Warranty Card included with this Trimble product, or consult your Trimble reseller.

Notice to our European Union customers

For product recycling instructions and more information, please go to www.trimble.com/ev.shtml.

Recycling in Europe: To recycle Trimble WEEE (Waste Electrical and Electronic Equipment, products that run on

Electric power), call +31 497 53 24 30 and ask for the "WEEE Associate".

Or, mail a request for recycling instructions to:

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