Piksi Multi Firmware Version 2.3 Release

June 11, 2019

Updates to Swift Navigation's Multi-Band, Multi-Constellation Centimeter-Accurate RTK GNSS Receivers

Overview

Swift Navigation is proud to release the latest firmware upgrade to the Piksi® Multi GNSS Receiver, its ruggedized version, Duro® and Swift's Inertial solution, Duro Inertial. Firmware Version 2.3 has noticeably improved GNSS performance in terms of position accuracy and availability, decreased RTK convergence time, added support for NMEA GST message, improvements to file I/O for SD card logging and additional performance and quality enhancements. In the Getting Started Guide, refer to Section 7 entitled Piksi Multi - Upgrading Firmware for detailed instructions on how to upgrade your device. Firmware release binaries and product support documents are available at support.swiftnav.com.

Changes from Firmware Version 2.2

- **Improvements to the** Starling® Positioning Engine — Solution availability and accuracy have both improved in all navigation modes. RTK convergence time has been noticeably decreased.
- **GST Message for NMEA** — NMEA GST message is now supported and provides estimated standard deviations of position errors.
- **Fixes and Improvements** — Users should notice improved file I/O, better performance in areas with foliage, increased accuracy after outages, better performance in multipath conditions.
- **PPS Improvements** — The Pulse Per Second (PPS) output has improved accuracy and reduced jitter.
- **Known Issues**
  - Upgrading to Firmware Version 2.3 requires that the Swift device is running Firmware Version 2.0, 2.1 or 2.2. Users will be unable to directly upgrade to the 2.3 release on devices running Firmware Version 1.5 and prior. Users will first need to upgrade to the Firmware Version 2.0 firmware release before being able to upgrade past 2.0. Downgrading from firmware 2.3 to 1.5 or prior can be done directly without downgrading to firmware 2.0 first.
  - Duro Inertial customers using Windows must upgrade the Swift Console to version 2.3 before attempting to upgrade firmware. Swift Console v2.2 may be unable to upgrade a Duro Inertial and will result in a pop-up window that indicates "Updating firmware is not supported when INS is active. Please change the 'output_mode' INS setting to 'Disabled' before updating firmware" no matter the state of the INS 'output_mode' setting. It is recommended to disable INS output during firmware update to avoid any misleading INS navigation solutions.

Swift Console

Together with the new firmware a new Swift Console version 2.3 is also released. For the best experience users should upgrade the Swift Console before using the new firmware.