



Software Version 1.5.0: Release Notes

Orolia released a software update for VersaSync. Customers can download this software update at no charge from the Orolia website (see [How to download and install the new SW](#)). This software update will upgrade the unit's system software to **Version 1.5.0**.

This update provides added benefits through new features, enhancements to existing functionality, as well as software fixes and security updates, as described in this document.

For your convenience, older legacy releases are also described in this document.

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Version 1.5.0

Notes

- **CAUTION:** *The 1.5.0 software does not allow downgrading. After applying this upgrade bundle, the unit cannot switch to an earlier version of the software without being returned to Orolia for reprogramming. The rollback feature has also been disabled in this version.*
- *The 1.5.0 software version is only being released for VersaSync; this software has not been designed for, or tested on, VersaPNT models.*
- *The 1.5.0 software version should only be applied to the following VersaSync models:*
 - 1228-0110
 - 1228-0410
 - 1228-1110
 - 1228-1410
 - 1228-2114

All other models should contact Customer Service for upgrade guidance.

Newly released features

- Improved PTP functionality. PTP now has an updated software subsystem, has full functionality on both eth0 and eth1, more PTP profile options, supports both Slave and Master configurations, Unicast, Multicast, and Hybrid settings, and both IPv4 and IPv6 connections, and is no longer limited to 1 GB/s network connections.
- Added support for significant security protocols: LDAP, RADIUS, and TACACS+.
- Added VLAN support.
- The IRIG-AM option card software is now fully integrated into the mainline software. IRIG-AM customers can upgrade through the standard procedure.
- Added IRIG-AM usability fixes to the Web UI.
- Added support for the STANAG 4430 HVK EXTENDED EDITION.
- Created a manifest log for troubleshooting.

Enhancements and fixes

The following defects were corrected and improvements were applied to existing features and functions:

- Upgraded several packages:
 - Upgraded Apache to 2.4.46
 - Upgraded NTP to version 4.2.8p15
 - Upgraded Openssl to 1.1.1j
 - Upgraded NetSWP to version 5.8

- Upgraded OpenSSH to version 8.1p1
 - Upgraded PHP to version 7.4.15
 - Upgraded GPSD to version 3.23
- NOTE: this upgrade contains a bug fix for the anticipated GPS week rollover issue on 2021-10-23.

Networking:

- Added parameters to the `rt4add` command (nexthop, metric).

NTP & PTP:

- Fixed a Known Issue: “PTP is currently limited to 1 GB/s networks and to the ETH1 interface.”
- PTP architecture has been redesigned.
- PTP is now available on both ETH0 and ETH1 interfaces.
- Fixed a problem using IPv6 as an NTP server or peer.

WebUI:

- Improved the function of the `clearlogs`, `clearstats`, and `clean` commands in the Web UI.
- Added a missing timescale selection field in the IRIG Output configuration.
- Improved the user experience of the configuration page of the GP Output.
- Corrected the Signature Control functionality in GP Output configurations.
- Added a missing toggle to enable/disable the System Time Message.

Misc:

- Fixed a Known Issue: “There is a known problem wherein the NTP and database logs fail to rotate properly.”
- Improved Galileo configuration to follow ublox receiver recommendations.
- Due to stability issues, the rollback feature has been disabled.
- Fixed an issue where HAVEQUICK Input was incorrectly validating the time.
- Fixed an issue with the command `clearlogs` causing a break in the NTP stats recording process
- Repaired an observed offset when switching references between GNSS and user0.
- Corrected an error when applying license bundles.
- Fixed an error with the `gpsreset` command
- Resolved an issue where occasionally the system would hold up when altering a pin configuration.
- Corrected an error in which the temperature alarm configuration was not properly transferred on upgrade.

- Corrected an issue with certain services (LDAP, GPSD) that were preserved on an upgrade but not during configuration bundle upload.

Known Issues

- This software version DOES NOT ALLOW downgrades. If you put this software on your system and later need to return your unit to a software version that came before version 1.5.0, it will be necessary to return your unit to Orolia for reprogramming.
- The on-unit PTP has a known issue after network connectivity loss (for instance, due to an Ethernet cable being temporarily disconnected). After the occurrence, PTP masters and slaves may not sync properly to each other. When this happens, it is necessary to restart the PTP master.
- ASCII time code format ICD-153c is not supported in this software version.
- Changes in the Web UI to the Logging Configuration (for instance, turning on Local Logging) will not take effect without restarting the unit.

Version 1.4.3

Notes

- *The 1.4.3 software version is only being released for VersaSync; this software has not been designed for, or tested on, VersaPNT models.*
- *The 1.4.3 software version should only be applied to the following VersaSync models:*
 - 1228-0110
 - 1228-0410
 - 1228-1110
 - 1228-1410

All other models should contact Customer Service for upgrade guidance.

Enhancements and fixes

The following defects were corrected and improvements applied to existing features and functions:

- Repaired a bug in which NTP was not correctly selected as the primary reference when needed.

Version 1.4.2

Notes

- *The 1.4.2 software version is only being released for VersaSync; this software has not been designed for, or tested on, VersaPNT models.*
- *The 1.4.2 software version should only be applied to the following VersaSync models:*
 - *1228-0110*
 - *1228-0410*
 - *1228-1110*
 - *1228-1410*

All other models should contact Customer Service for upgrade guidance.

Enhancements and fixes

The following defects were corrected and improvements applied to existing features and functions:

- Fixed the ability to clone unit configurations, including the IP address, across multiple units.
- Repaired a known issue with NTP and database logs failing to rotate.
- Resolved an issue with Broadshield incompatibility under version 1.4.1.

Version 1.4.1

Notes

- *The 1.4.1 software version is only being released for VersaSync; this software has not been designed for, or tested on, VersaPNT models.*
- *The 1.4.1 software version should only be applied to the following VersaSync models:*
 - 1228-0110
 - 1228-0410
 - 1228-1110
 - 1228-1410

All other models should contact Customer Service for upgrade guidance.

Enhancements and fixes

The following defects were corrected and improvements applied to existing features and functions:

- Repaired an issue with clean upgrade when performed through the Web UI.
- Integrated minor Web UI bug fixes into current release.
- Fixed an issue when disabling DHCP from the Web UI; the software now allows a return to default by accepting a blank gateway value.
- Fixed a problem with the login screen version display showing incorrect information.
- Corrected an issue wherein restore defaults and clean did not reset the pin configuration on the multi-I/O connector.
- Fixed an intermittent bug that occasionally caused reboot to fail.
- Repaired a problem with PTP not working when both network interfaces were connected to the same subnet.
- Fixed a problem with the PTP ceasing operation under certain conditions.
- Corrected an intermittent error with some PTP users experiencing a one-second offset.
- Reduced latencies on RX network packets.

Known Issues

- PTP is currently limited to 1 GB/s networks and to the ETH1 interface.
- There is a known problem wherein the NTP and database logs fail to rotate properly. Units which are not updated out of this software version to newer versions may experience performance failure after approximately 2 years of average usage.
Customers may use the `clearlogs` and `clearstats` commands through the CLI to mitigate this effect.

Version 1.3.1k

Enhancements and fixes

The following defects were corrected and improvements applied to existing features and functions:

- Fixed a bug where a configuration bundle, saved on a 1.1.X version, and applied on a 1.3.X version or later, wouldn't work as expected, making it mandatory to clean config and manually reapply settings.

Version 1.3.1h

Enhancements and fixes

The following defects were corrected and improvements applied to existing features and functions:

- Fixed a condition in which a unit configured with SNMP could erroneously report alarms as pending.

Version 1.3.1g

Newly released features

- To reflect popular customer configuration and remove instability, the default IP configuration for both interfaces is now static, rather than DHCP. The new default static IP addresses are:
Eth0: 192.168.1.1
Eth1: 192.168.1.2
Settings are retained after upgrading unless the “clean” upgrade is selected, or the user chooses to restore default settings.
It is still possible to activate DHCP through the Web UI or CLI.
- A new rollback feature has been implemented to allow users to switch back to the software version that was installed on their unit before the last upgrade. The previous version's software will be stored in the unit until activation. Since both software versions are held in the unit memory, it is also possible to undo the rollback by activating the rollback feature a second time. This will switch the in-use software to the newer version.
To activate the rollback feature, log in to the Web UI, and navigate to **Tools > System > Upgrade/Backup**.

Enhancements and fixes

The following defects were corrected and improvements applied to existing features and functions:

- Fixed an issue with the 10MHz output signals on certain device configurations.
- Fixed a freezing issue resulting from incorrect entries into the pin configuration matrix.
- Fixed an issue with static IP retention during an update.
- Repaired minor Web UI display bugs.

Version 1.3.1d

Enhancements and fixes

The following defects were corrected and improvements applied to existing features and functions:

- Fixed an issue in which the NTP service could stop operation after encountering large time shifts.

Notes

This software version is designed as a software patch for version 1.3.1, but operates as an independent software release. It is therefore not necessary to upgrade to version 1.3.1 before upgrading your unit to 1.3.1d.

Known Issues:

When updating from an earlier release, static IP configuration settings may be lost. The VersaSync should be on a network with DHCP capabilities or have a direct serial connection prior to applying the update to ensure connectivity post update.

Version 1.3.1

Newly released features

- Added GPSD support and GPSD configuration and display via VersaSync/VersaPNT CLI and WebUI. GPSD displays the status of the ublox receiver.
- Added Event Time Stamper availability without requiring the application of a license file in order to provide the service to all users.
- Added support for SAASM (for authorized customers only) and CSAC.
- Enabled BroadShield service support and WebUI functionality.
- Added support for VersaPNT.

Enhancements and fixes

The following defects were corrected and improvements were applied to existing features and functions:

Networking:

- Improvements made to Versa-specific SNMP MIB, including increased clarification of alarm messages and KTS commands.
- Repaired and reconfigured the HTTP and HTTPS management method.
- Altered settings in both the Web UI and CLI to allow the system to retain DNS information after DHCP is disabled.
- Verified and adjusted timing reference distribution to GNSS, internal 1PPS, external 1PPS, DCLS, RS485, and IRIG.
- Upgraded to long-term stable Buildroot kernel (2018.02.3 LTS: 4.9.76-rt61-ltsi).

WebUI:

- Added 'Save Config' and 'Load Config' buttons on the pin layout page.
- Repaired defect with the saving pin layout function.
- Configured Web UI to correctly identify product model on startup.
- Refreshed a warning dialog to alert the user of an attempt to roll back the system firmware.
- The installed software license information is now displayed in the upgrades section.
- Fixed issue with SNMP restart after disabling and re-enabling services.
- Fixed issue with reflecting the Netmask changes in the Web UI.
- Incorporated x410 high-precision OCXO models into Web UI functionality.
- Repaired issue with WebUI report of positioning of the dial name at less than 1 degree.
- Restored System Time Message functionality

Misc:

- Corrected CLI model and model options commands to correctly identify VersaSync and VersaPNT.
- Included “*cfg” and “*get” CLI commands that will display the current configuration of the interface.
- Repaired problem setting GNSS position in the CLI.
- Fixed defect with CLI “clean” command to reset the pin configuration to default settings.
- Implemented RTC at boot-up of unit in order to reduce errors during setup.
- Redesigned log files
- Included the hostname in the list of items affected by the “config restore” command.

Known Issues:

- The “release4” and “release6” CLI commands are not currently functional.
- A few CLI commands have syntax which differs from the helpcli file. These commands display correctly in the inline help instructions.

Version 1.1.5

Newly released features

- The **Galileo** constellation is now supported.
- The brightness of the **front panel LEDs** is now adjustable. To turn OFF the LEDs, set the brightness to zero.
- The GNSS configuration now supports the **Manual Position** option which, in Standard receiver mode and Stationary dynamics, allows the user to manually set the geographic position. This may be necessary if the GNSS receiver could not complete a survey e.g., if GNSS reception is poor.
- In Standard receiver mode and Stationary dynamics setting, on startup of the unit, a **GNSS resurvey** will now be performed automatically.
- The default GNSS mode is now **Mobile mode**, rather than Stationary. SW upgrades will not change the user-set configuration.

Enhancements and fixes

The following defects were corrected and improvements were applied to existing features and functions:

Networking:

- Improvements made to Versa-specific SNMP MIB, including increased clarification of alarm messages and KTS commands.
- Fixed issues with services failing to start when **ETH1 was disconnected** on startup.
- Fixed issues with services failing to start on bootup when **DHCP was disabled**.
- When using the 'net' command, the **MAC address** will now be displayed correctly.

NTP & PTP:

- Fixed **startup issues with NTP** (previously released patch).

WebUI:

- The **FAULT indicator** in the Web UI will now be ON only if a fault condition is present.
- The **Saving Logs** functionality now saves all logs at the same time (in the Web UI, navigate to Management > Log Configuration).

Misc:

- The **output on pins 1 & 2** will no longer be lost after a power cycle.

- Fixed an issue with the **system time** being 1/1/2000 until a valid reference was found.
- The **MIB** now displays the product name "VERSASYNC".
- Fixed an issue with the **deletion of logs**.

Version 1.1.0

Newly released features

- Added support for event timestamping (paid license option)
- Blackout mode for front panel Status LEDs (NOTE: lights are ON temporarily during startup)
- Added hardware timestamping to PTP (NOTE: In 1.1.0 PTP is restricted to ETH1. The interface for PTP data will likely change in a future release.)
- Added support for zero-configuration networking

Enhancements and fixes

The following defects were corrected and improvements were applied to existing features and functions:

Networking:

- Fixed an issue with creating static routes
- Fixed an issue with handling DHCP leases
- Fixed an issue with handling traffic on ETH1
- Allow pinging with sudo (e.g., sudo ping 192.168.1.1)
- Now provide a unique dynamic hostname for device

PTP:

- Improved status reporting in PTP
- Improved PTP compatibility with certain slaves
- Fixed incorrect timescale in PTP

WebUI:

- Performance improvements
- Validation of pin configuration
- Page cleanup
- Fixed an issue with viewing GNSS satellite data

Misc:

- LED behavior now matches the documented behavior.
- Improvements to the configuration restoration
- Fixed an issue causing pin configuration changes to require a reboot to take effect

- Fixed an issue with applying leap seconds to NTP/PTP packets late
- Improved runtime hardware monitoring
- Added signing of upgrade bundles for robustness
- Cleanup of logging, removing erroneous log messages
- Improved system stability
- Applied improvements to system cleaning functionality
- Fixed an issue with creating user accounts

Known Issues:

- Pin configuration is not restored in a configuration restore.
- Issue updating from versions older than 1.0.2
- Fault indicator in Web UI is always illuminated
- Constant ~10 μ s offset in PTP packets on ETH0
- System time is sometimes reset on power-up
- 10 MHz outputs cannot be disabled
- Incorrect default GNSS configuration (should be 'Mobile')

Version 1.0.2

Newly released features

- It is now possible to generate xPPS signals.
- A REST API for VersaSync is now available.

Enhancements and fixes

The following defects were corrected and improvements were applied to existing features and functions:

- Ethernet1 is now available.
- sshd is now supported
- The Havequick input is now available.
- The default 1PPS output pulse width is now 200ms.
- It is now possible to configure PTP via the Web UI.
- It is now possible to use 2 reference inputs of the same type.
- The default mux configuration does work now.
- A defect with the network configuration has been fixed.

Which SW version is installed on my VersaSync or VersaPNT?

To determine the software version currently installed on your unit:

1. Login to the unit's Web UI
2. Navigate to **Tools > Upgrade/Backup**. The **System Configuration** panel in center of the screen displays the current version number under System:

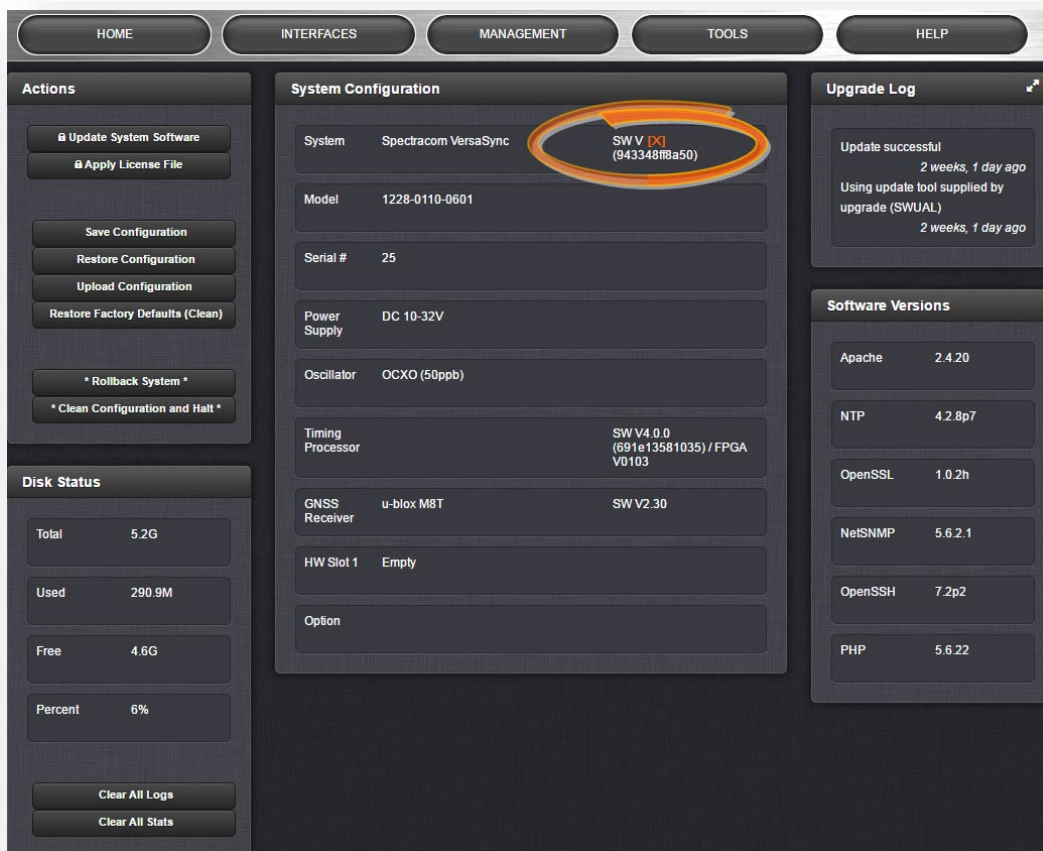


Figure 1: Software revision reported under Tools > Upgrade/Backup.

How to download and install the new SW

Downloading the Software Update

The latest VersaSync software update can be downloaded from the Orolia website under <https://files.spectracom.com/downloads/versasync>

Installing the Software Update

Instructions on how to install the new software update can be found under http://manuals.spectracom.com/VSS/Content/VSS/SYSAD/SW_Upgrades.htm.

For more information on this process or any other feature or function of the VersaSync and VersaPNT, refer to the main user manuals, at: <http://manuals.spectracom.com/>

How to contact Technical Support

Should you have any questions or comments regarding any of the above-mentioned features or fixes, please contact Technical Support:

<https://www.orolia.com/support/>

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