

PSA 4.2.10 Release Notes

The PSA 4.2.10 Release Note is applicable to the **PowerSync Analyzer**, the **PowerSync Programmable Load**, and the **PhyView Analyzer** instruments, including the **PSA-3002-SA Service Analyzer** and **PDA-LLDP PoE LLDP Analyzer**.

Summary

The version **4.2.10** is expected to be the final PSA 4.x software release. Future releases will be PSA **5.x** releases. The 4.2.10 release includes several important bug fixes accumulated over the past 4 months since the PSA 4.2.09 release in November, 2018. It is most pertinent to **PVA-3000** (PhyView Analyzer) instruments but does include some minor fixes for **PSA-3000** and **PSL-3000** instruments. It also includes a utility for updating all **PSA-3202** and **PSL-3202** test blades and **PSA-3402** instruments to a new firmware release **version 16** for the Active Load Controller (ALC).

Version 4.2.10 is recommended to all customers of PSA-3000/PSL-3000/PVA-3000 test instruments that are not yet upgrading to pre-release PSA 5.0 software. Customers who are upgrading to pre-release 5.0 software will have all of the new features of PSA 4.2.10 and therefore do not need the PSA 4.2.10 update.

PSA-3202/PSL-3202/PSA-3402 ALC Version 16 Update

THIS IS A VERY HIGHLY RECOMMENDED UPDATE TO ALL AFFECTED INSTRUMENTS. See associated instructions at the end of this document.

PSA 4.2.10 Enhancements

Software Entity	Impact	Feature
PVA PHY Test Suite	Moderate	Refined the pva_rx_100 test Link Monitor decision where results are reported as either Link_mon (0-100) or Link_chk (UP or DOWN). Improved consistency of this decision across the total population of PVA test ports.
PSE Conformance Test Suite	Minor	Enhanced the class_err test so that it will run successfully with PSE's that implement long (100msec) Class Event 1 class pulses commonly seen with 802.3bt PSE's operating in an 802.3at (2-pair) configuration.
PSA Software for Linux Hosts	Moderate	Enabled PSA Software (for PowerSync and PhyView Analyzers) to load and run in Linux environments that are 64-Bit and/or are configured with Tcl/Tk 8.5 versions. NOTE! Many aspects of PSA software have not been heavily tested under these conditions.

PSA 4.2.10 Bug Fixes

Software Entity	Impact	Feature
PVA Metering	Moderate	Corrected a rare problem that could develop during PSD (<i>power spectral distortion</i>) local calibrations where calibrations could possibly be associated with the wrong PVA test port. Though unlikely to happen with most PVA instruments, the impact of this could adversely impact measurements.

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Software Entity	Impact	Feature
PVA Calibration	Moderate	Corrected a rare vulnerability where if two successive PSD calibrations on one pair of one port both produced error conditions, the calibration sequencer could overlook this can continue the calibration sequencing without terminating on an error.
PSE Conformance Test Suite	Moderate	Resolved a vulnerability in the <code>class_err</code> test where an occasional false negative (FAIL) result could occur on the uneven classification test case (<code>Pwr_CI_Uneven</code> parameter) when testing with PSA-3102 test blades.
	Minor	Corrected sensitivity in <code>det_i</code> test to a very narrow class of zero-backoff PSE's when tested by PSA-3202 ports.
PSA Interactive PL	Moderate	Corrected an error condition that would arise if the power-up emulation was applied to "All Ports" in the PSL-3000 instrument.
PSA-3000 Metering	Minor	Corrected vulnerability to an I/O Timeout when the <code>pwruptrace</code> meter is used with a 10 second timeout configuration.
PowerShell PSA	Minor	Corrected a long standing issue where the most recently used PSE attribute file was stored improperly in certain MS Windows environments.
PSA/PSL Multi-Port Suite	Minor	Corrected an issue with <code>psa_emulate_pd</code> where the absence of a PD power argument allowed an arbitrary firmware resident value from a previous emulation to be applied. Command now defaults to 4W load unless power argument is provided.
	Minor	Solved a vulnerability in the <code>mp_static_caps</code> test where a PSE that tolerated only a very low load on all PSE ports simultaneously could cause the test to produce a math error in Tcl.

PSA/PVA Firmware Versions

While PSA 4.2 software supports many older firmware versions, the recommended versions are:

PSA-3000 Controller: ver 3.17 or newer	PSA/PSL-3202 Test Port: ver 4.11 or newer and ALC ver 16 or newer.
PSA-3402 Controller: ver 3.17 or newer	
PSA/PSL-3102 or PSA-3002 Test Port: ver 3.28 or newer	PVA-3102 Test Port: ver 3.0B or newer

PSA-3202/PSL-3202/PSA-3402 ALC Version 16 Update

The ALC firmware within a PSA-3202/PSL-3202/PSA-3402 is a vital element affecting the instrument's ability to reliably emulate all **802.3bt** PD's and to test **802.3bt** PSE's under a wide variety of conditions. The current version of ALC firmware is **version 16**. Any instruments that are used for 802.3bt PSE testing either now or in the future must be updated to this version.

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To examine current ALC firmware version, simply open **PowerShell Tcl** or **Wish** and execute the command:

`psa_config -alc`

ALC Update Instructions

*This firmware update must be performed using either the **PSA 4.2.10** software release or the **PSA 5.0.0q** pre-release 5.0 software. These PSA software releases are available from the Sifos website Product Download pages.*

Updating any PSA/PSL test instrument to ALC version 16 is a very simple task. However, it should be performed when the instrument is not needed for a while as it may take from 3 to 10 minutes PER TEST PORT to complete. It is recommended to simply run this update overnight from a PC that is not busy performing other tasks.

To perform the ALC version 16 update to all PSA/PSL-3202 test ports:

Obtain the file **ALCv16.zip** from the PSA 4.2.10 CD (\Firmware\ directory) or from the PSA-3000 / PSL-3000 product download pages as sifos.com.

Unzip (install) the 3 files in **ALCv16.zip** to:

PC OS	PSA Software Release	Installation Directory
Windows 10, 8, 7, Vista	PSA 4.2	C:\Users\Public\Sifos\PSA1200\Contrib\
	PSA 5.0	C:\Users\Public\Sifos\PSA3000\Contrib\
Windows Xp	PSA 4.2	C:\Program Files\Sifos\PSA1200\Contrib\
	PSA 5.0	C:\Program Files\Sifos\PSA3000\Contrib\

Open PowerShell (Wish or Tcl), connect to instrument that will be updated, and execute:

`alc_updater_16`

When the update is completed, look for the indication:

`alc_updater_16: UPDATES COMPLETED !!!!`

`Ports **** Updated Successfully!`