PSA 4.2.09 & 4.2.08 Release Notes

The PSA 4.2.09 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 **4.2.09** release is nearly identical to the prior 4.2.08 release but requires a feature essential to updating all **PSA-3202** and **PSL-3202** test blades and **PSA-3402** instruments to a new firmware release for the Active Load Controller (ALC).

The version **4.2.08** release is nearly identical to prior 4.2.07 release, but includes one bug fix essential to the PVA-3000 running the **DC Unbalance Tolerance** application.

The version 4.2.09 release has no impact to the PhyView Analyzer or to PowerSync Analyzers that do not include PSA/PSL-3202 hardware.   However, there will be no problem if this update is implemented with all PSA/PSL/PVA instruments.

PSA-3202/PSL-3202/PSA-3402 ALC Version 15 Update

The primary reason for the PSA 4.2.09 release is to provide a simple facility for updating every PSA-3202/PSL-3202/PSA-3402 to new ALC **version 15**.   THIS IS A **VERY HIGHLY RECOMMENDED** UPDATE TO ALL AFFECTED INSTRUMENTS.

ALC version 15 for the PSA-3202/PSL-3202/PSA-3404 significantly improves the function and robustness of voltage transition de-bouncing and voltage glitch immunity of the active load controller.   These behaviors are going to be essential in 802.3bt PSE testing where the process of multi-event classification must be tolerant of PSE's that may exhibit "glitchy" transitions or may be more prone to deep voltage oscillations when put into current limiting states.   ALC firmware is separate from Test Port firmware that will be updated on a more frequent basis.

Updating any PSA/PSL test instrument to ALC version 15 is a very simple task with PSA 4.2.09.   However, it should be performed when the instrument is not needed for a while as it may take 8 or more minutes PER TEST PORT to complete.   It is recommended to simply run this update overnight.

To perform the ALC version 15 update to all PSA/PSL-3202 test ports, simply open PowerShell (Wish or Tcl), connect to the test instrument that is to be updated, and enter the command:

alc_updater_15

When the update is completed, look for the indication:

alc_updater_15: UPDATES COMPLETED !!!!

Ports **** Updated Successfully!

Note that this command will only be available after installing PSA version 4.2.09.   ALC current version can always be inspected in a PSA/PSL instrument using the command:

psa_config -alc

PSA 4.2.09 & 4.2.08 Release Notes

PSA 4.2.09 Enhancements

Software Entity	Impact	Feature
PowerShell PSA	Critical	PowerShell PSA (Wish or Tcl) includes a facility to automatically update PSA-3202 test ports, PSL-3202 test ports, and PSA-3402 instruments to a new **version 15** of **Active Load Control** firmware. The ALC firmware update process has been extended to be more robust with better ability to annunciate any updating problems.
PSE Conformance Test Suite	Minor	Modified **pwron_v** to set up a low power state that draws 0.6 watts meaning it will draw at least 10.5 mA at 57V V_{pse}.
	Minor	Modified **mps_dc_pwrdn** to use a 3 second dwell time when checking for I_{Hold} at 12mA and 10mA to cover PSE's that have slow decision making and high I_{Hold} thresholds.
	Minor	Resolved **class_err** vulnerability to a rare end-of-mark2 glitch in the T_{reset} measurement.
PowerShell Tcl	Minor	When opening PowerShell Tcl after prior session was configured to Demo Mode, the response "N" to connecting address 000.000.000.000 so that a real instrument address can be entered will now successfully take PowerShell Tcl out of Demo Mode.

PSA 4.2.09 Bug Fixes

Software Entity	Impact	Feature
PowerShell PSA	Moderate (ver 4.2.08)	Corrected defect in the **qpsa_config** command that would interfere with running the **PSE DC Unbalance Tolerance** application with the PVA-3000.

PSA/PVA Firmware Versions

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

PSA-3000 Controller: ver **3.16** or newer **PSA-3402 Controller**: ver **3.17** or newer	**PSA/PSL-3202** Test Port: ver **4.10** or newer and ALC ver **15** or newer.
PSA/PSL-3102 or **PSA-3002** Test Port: ver **3.27** or newer	**PVA-3102** Test Port: ver **3.0B** or newer

*Note that for future first party **EA certification testing**, the only firmware supported as of May 1, 2018 is PSA Controller 3.14, PSA Test Port 3.24 (PSA-3102) and PSA Test Port 4.0D (PSA-3202) along with PSA-3202 ALC Firmware v13.   This is subject to change – contact Sifos support for updates.*