

## PSA 4.2.06 Release Note

The PSA 4.2.06 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

#### EA 1<sup>st</sup> Party Certification Testing

As of May 1, 2018, Sifos has not yet applied to have PSA 4.2.06 approved for EA 1st party testing. This is subject to change – contact Sifos support for updates.



PSA 4.2.05 is approved for usage to perform first party (self-certification) testing for the Ethernet Alliance (EA) PoE Logo Certification Program. For further information, see <http://sifos.com/Portals/0/Literature/Announcements/EA%20PoE%20Certification%20Program%20Update%2C%20April%202018.pdf>

### PSA 4.2.06 Enhancements

Software Entity	Impact	Feature
PSA Trace Metering	Significant	Enhanced the <b>pwruptrace</b> meter to accept Extended trace apertures (1024 samples) including 200mx, 2sx, 4sx, 8sx, and 10sx. This will be utilized in future versions of the PSE Conformance Test Suite and will require firmware versions 3.25 for PSA-3102/PSA-3002 and 4.0D for PSA-3202/PSA-3402.
PowerShell PSA	Moderate	Added command option to have <b>power_bt</b> return the class event count following 802.3bt power-ups. <i>(Supported only in PSA-3202, not PSL-3202 until next release.)</i>
	Minor	Added ability to independently configure currents to Event 4 and Event 5 so that all 5 possible events can now be independently programmed. <i>(Requires PSA-3202 ALC version update to v14.)</i>
	Minor	Improved robustness of <b>psa_update_fw</b> command used to update PSA/PSL controller blade firmware so that it will work with future PSA 5.0 software reliably.
PSE Multi-Port Test Suite	Moderate	Modified <b>mp_overld_time</b> test to better handle PSE's with multiple firmware controlled Icut-Tcut threshold level combinations.
PVA PHY Performance Test Suite	Moderate	Added optional diagnostics into Rx tests run in <b>Link Monitor</b> mode to get better insight regarding any link monitor losses.
LLDP Protocol Traces	Moderate	Modified the 'power-up trace' to allow for 2-Event PSE's that initially authorize 25.5W in first LLDP messages.

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Software Entity	Impact	Feature
PSA Interactive Standard Waveforms	Moderate	Revised 6 optional color schemes
	Moderate	Revised the Classification waveform to work better with Type-3 2-Pair PSE's and with PSE's that have very long MARK 2 intervals.
	Moderate	Modified Overload Shutdown waveform to range to higher max current to allow for Type-2 2-pair PSE's going up to 850mA and to be more immune to multiple "soft" Icut/Tcut level combinations.
	Moderate	Expanded maximum current scale from 2100mA to 3000mA to support 4-Pair Type-4 PSE waveforms.
PSE Conformance Test	Minor	Modified <b>det_resource</b> to more reliably produce a Zout number to all current-sourced detection schemes. Previously, an sporadic "-1" would be produced for certain PSE's.
	Minor	Modified <b>pwron_maxi</b> to utilize 950mA transients rather than 1000mA transients on two test conditions to prevent possible current limiting in the PSA active load.
	Minor	Modified <b>class_lldp</b> test to expect 25.5W initial allocation from Type-2 PHY (2-Event) PSE's should those PSE's also be LLDP capable.

### PSA 4.2 Bug Fixes

Software Entity	Impact	Feature
PowerShell PSA	Moderate	Corrected a problem where 802.3bt power-up emulation command <b>power_bt</b> was not furnishing the default 2mA MARK signature current during classification in a PSA-3202 test port.
PVA PHY Performance Test Suite	Moderate	Cured a vulnerability where <b>pva_caps</b> test could produce a false negative indication of Stability= UNSTABLE when testing 10/100 interfaces.
	Minor	Modified <b>pva_rx_1000</b> so that if reduced impairment is specified down to the level of -6dB, that 'pva_noise' and 'pva_tx_clk' won't get programmed to below -6 dB.
4-Pair Live PD Emulation	Minor	In order to solve a problem in PSA 4.2 software and to be forward compatible with future PSA 5.x software, the <b>psa_4pair_emulate_pd</b> command now requires minimum PSA controller firmware version '3.0F'.
	Minor	Modified PSA Interactive Live PD Emulation menu so that 4-Pair Live Emulation to all test ports in a chassis won't produce an error when Live PD Emulation is stopped.

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### *PSA/PVA Firmware Versions*

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

<b>PSA-3000 Controller:</b> ver <b>3.16</b> or newer	<b>PSA/PSL-3202</b> Test Port: ver <b>4.0D</b> or newer and ALC ver <b>14</b> or newer.
<b>PSA/PSL-3102</b> or <b>PSA-3002</b> Test Port: ver <b>3.25</b> or newer	<b>PVA-3102</b> Test Port: ver <b>3.0B</b> 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.*