

PSA 4.2.07 Release Note

The PSA 4.2.07 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 1st Party Certification Testing

As of May 1, 2018, Sifos has not yet applied to have PSA 4.2.07 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%20C%20April%202018.pdf>

PSA 4.2.07 Enhancements

Software Entity	Impact	Feature
PowerShell PSA – PSE Attributes	Moderate	Implemented a revised structure for managing PSE attributes as coded in PSE Local Config files. PSE attributes now consist of the following settings: Default_PSE_Class: AT BT PROP4 Default_PSE_MPS_Type: DC AC Default_ALT_Setting: A B 4Pr Default_POL_Setting: MDI-X MDI MDI-X+MDI ... PSE_4Pair_Type: NONE Type-3 Type-4 PSE_High_Pwr_Grant: NONE PHY LLDP PHY+LLDP <i>Older PSE Local Config files will automatically update to these settings when loaded into PSA 4.2.7 software.</i>
	Moderate	The psa_auto_port command is modified to accept a declaration that a PSE is designed to be AT (802.3at), BT (802.3bt), or PROP4 (Proprietary 4-Pair). <i>Note that automatic discovery of 802.3bt PSE attributes must be done using PSA 5.0 software. See PSA-3000 Reference Manual Section 2.4.4 and 4.9 for further details.</i>
PSE Conformance Test Suite	Moderate	The sequence command is modified to accept a -dir argument allowing sequence-specific test report routing to unique file directories. This allows sequences of sequences run on the same PSE or using the same PSA instrument to place test reports in unique directories. EXAMPLE: <i>Run Type-1 and Type-2 emulation sequences on a 6 port PSE by pasting the following two commands to PowerShell:</i> <pre>sequence -p {1,1 1,2 2,1 2,2 3,1 3,2} -c -type 1 -dir 1 sequence -p {1,1 1,2 2,1 2,2 3,1 3,2} -c -type 2 -dir 2</pre>

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Software Entity	Impact	Feature
	Minor	Restricted general usage of extended trace apertures to PSA-3000 instruments only, removing any support in PSA-1200 instruments. This can potentially affect (e.g. slow down) det_time , class_v , and class_err tests running with PSA-3000 test blades in a PSA-1200 chassis.
	Minor	Enhanced Tdbo_eff characterization in certain PSE's.
	Minor	Modified det_range to better filter out very large (e.g. 40V) classification edge voltage spikes when testing for PSE power-ups. Also modified pwrup_time to have a better chance of measuring Trise in the presence of classification edge voltage spikes.
	Minor	Further modification to det_resource to guard against Zout= '-1' outcomes on high source impedance PSE's.
	Minor	Modified class_ldap to more reliably resolve switch ports that don't support 10Base-T link-ups across a wider array of multi-gig PHY implementations.
PSE Multi-Port Test Suite	Moderate	The mp_sequence command is modified to accept a -dir argument allowing sequence-specific test report routing to unique file directories. This allows sequences of sequences run on the same PSE or using the same PSA instrument to place test reports in unique directories.
	Minor	The mp_sequence command is modified to protect text report file letter case in order to be broadly compatible on Linux systems.
PVA Performance Test Suite	Moderate	The pva_sequence command is modified to accept a -dir argument allowing sequence-specific test report routing to unique file directories. This allows sequences of sequences run on the same PSE or using the same PSA instrument to place test reports in unique directories.
	Minor	Refined the method used to discriminate DUT ports that stay linked in 100Base-Tx regardless of impairment level from those that drop severely impaired links.
	Minor	pva_rx_100 test modified to allow more time to assess link drops under impairment in order to accommodate DUT ports that respond slowly to large impairments.
PSA Interactive	Moderate	PSA Interactive 4.2 altered so that when run under PSA 5.0 software, the 4-Pair drop down menu is disabled because 4-Pair proprietary PSE testing is only supported in PSA 4.2 software.
PowerShell PSA	Important	Modified power_bt so that when Autoclass is specified, requested power will be present in 1.5 seconds and to restrict Autoclass to Single Signature class 1-8 only. <i>Note: Users working with power_bt SHOULD migrate to</i>

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Software Entity	Impact	Feature
		<i>pre-release PSA 5.0 software.</i>
	Moderate	Revised the polarity command so that in 2-Pair modes, only pos (or mdi) and neg (or mdix) are valid entries and in 4-Pair modes, polarities such as neg+pos (or mdix+mdi) are interpreted as ALT-A Polarity + ALT-B Polarity.
	Moderate	Enabled firmware updates to new PSx-3202 version 9 hardware using the psa_flash command.
	Moderate	Extended pwruptrace meter with a stat connect argument combination that will connect a PD signature just after the trace starts running. This allows pwruptrace to capture voltage samples immediately following a PD connection.
	Minor	Added more diagnostic information to the psa_latency_test utility.

PSA 4.2 Bug Fixes

Software Entity	Impact	Feature
PowerShell PSA	Minor	Removed a potential reliability issue in the PSA/PVA I/O drivers affecting Windows XP and resulting in rare, unexpected long latencies.
	Minor	The tclshrc_psapi.tcl and wishrc_psapi.tcl files were revised to be valid for PSA 4.2 software instead of PSA 5.0 software. These are used for sourcing PowerShell PSA to a generic Tcl/Wish shell.
Service Analyzer	Minor	Corrected notification problem when run on a general purpose PSA instrument that is not licensed for LLDP.

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/PSL-3202 Test Port: ver 4.10 or newer and ALC ver 14 or newer.
PSA-3402 Controller: ver 3.17 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.*