



PSM Release Notes

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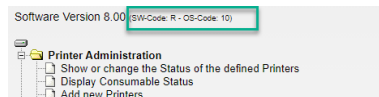
Please read before you start




Version 8 is a major release, please read carefully before you upgrade.!

As time is moving forward, we have to say goodbye to some very old editions of PSM. The so called "very old" editions were all Linux base, but built on an OS Version which is definitely outdated today, and on PHP versions, which do not support new methods, and are considered to be insecure.

Therefore, Version 8 will support only the editions noted below. If you are running on a recent Version 7, you will see the editions noted on the top of the main menu.

Supported PSM Editions:



SW-Code / OS Code	Description		Supported	PSM Version Supported
W – W	PSM on Windows		Yes	Latest
R – 10	Raspberry Appliance with Raspbian OS		Yes	Latest
B – 3	Virtual Server with Ubuntu 14.04 64 Bit		Yes	Latest
A – 3	Rack Appliance with Ubuntu 14.04 64 Bit		Yes	Latest
S – 2	Rack Appliance with Ubuntu 12.04 64 Bit		No **	Max. 8.04
U – 2	Virtual Server with Ubuntu 12.04 64 Bit		No **	Max. 8.04
L – 2	PSM Lite Appliance (yellow) with Ubuntu 12.04 32 Bit		No	Max. 8.04
L – 1	PSM Lite Appliance (yellow) with Ubuntu 9.10 32 Bit		No	Obsolete
O – 0	Other (older) Linux appliances with SUSE OS		No	Obsolete

** Appliances built on Ubuntu 12.04 are using PHP Version 5.2. Not all functions will be available, such as SNMP V3, which is not supported there. We do also recommend to move away from that and change to the new Windows Version.

We are not sure yet, if we will build another hardware based Linux appliance yet, since there was no more demand for it over the past 2 years. If there is enough demand for it, we could build another virtual Linux image with a recent OS and PHP Version. Please let us know, if there is a need for that.

Update requirements:

The requirement for an upgrade to version 8 is, that the latest version 7 build is currently installed. The pre requirements (and update steps) are as follows:

- Versions below 6.24 : install 6.24 first
- Version between 6.24 and 7.01: install 7.02 first
- Versions between 7.02 and 7.20: install 7.21 first
- == 7.21 is the version which must be installed, before you can update to version 8.

Changes concerning the backup files

In Version 8 we have changed the backups to no longer contain the program files to make the backup files smaller. This means only the database backup and the data files are stored inside a backup archive. Version 7 backups < > Version 8 backups are NOT compatible. The Version 8 backups always contain "...v8.tar" on Linux based versions or "...v8.zip" on Windows based versions. DO NOT rename them and try to restore on a version it was not built for. (Restoring a non V8 Backup in V8 or restoring a V8 backup on a V7 PSM would render your installation unusable!

V8 Backups can only be restored on the same PSM Version where they were created. If you need to restore because of a server change or a crash, you will need to install the same version of PSM before restoring the backup. If you don't remember the backup version, you can open the archive file and look for the file "hwedition.txt". This will contain the needed information.

"Umlaut" considerations (öäü/éàè)

Not all PSM editions (and releases) were setup using the UTF8 Character Set. Version 8 is now using it, and it will change the database table to UTF8, if not already set. Depending on you previous version (and browser used) it might be, that Umlaut characters will be displayed incorrectly. In this case you will need to correct this manually one time. After it has been corrected, it will work correctly on all browsers (Tested: IE, Chrome, Edge, Firefox, Safari).



Windows full update (upgrade)

The first "PSM on Windows" installations are all built on MySQL Server 5.5 and PHP 5.6. Both, PHP 5.6 any MySQL 5.5 are recognised as "outdated" by quite a view software inventory programs or even security / virus scanners. You should definitely consider to do an Update and move to the latest version.

The second "PSM on Windows" installations are built on MySQL Server 8.0.023 and PHP 7.3. PHP 7.3 has just become outdated a view months ago, while for MySQL Server 8 there is a security patch. We recommend to update to the latest version.

The latest "PSM on Windows" installations are built on MySQL Server 8.0.030 and PHP 8.1.011. This version has been made available in October 2022.

The "[PSM for Windows Installation-Guide Version-8.07.pdf](#)" manual describes the process of upgrading existing windows servers or migrating to a new windows server in chapter 8. Please follow the steps there for a successful migration / upgrade.

Please note that if you are upgrading (full update) your windows installation (which means also that the MySQL Server is upgraded), you will loose the MySQL Users, if you have defined any. You will need to re-create the MySQL Users again over the administration section of PSM after the upgrade.

Reporting Section (graphical reports)

Since version 8 has changes in the MySQL area, you will need a new reporting package, if you are using the graphical reports at all (optional). On the new windows installation, the graphical reports are not even installed by default.

You can download the new reporting package over the download pages, or use the links here:

- Linux based PSM reporting package [download](#)
- Windows based PSM reporting package [download](#)

To install the new reporting package, use the administrative section of PSM after you have updated to Version 8 of PSM.



PSM Software Version 8.08 – 27th of October 2022

Bug Fix (only PHP 8 affected)

Some PHP8 related exceptions have been detected in the printer query program as well as the update programm. If you have the Windows PHP8 Version based PSM already installed, you need to update, and you need to run the update twice in order to be effective. If you did not already install the new Windows Version, you're not affected.

PSM Software Version 8.07 – 20th of October 2022

Enhancement for the optional "Stock Administration Feature": automatic XML Orders by Mail

The optional "stock feature" has further been enhanced (compared to Version 8.04). Instead of the classic automatic email ordering, the orders can be routed to the "stock administration" (Lagerverwaltung in German) and scheduled to be transmitted by FTP/SFTP on selectable days. Now it is also possible to send such XML orders by Mail.

Last code cleanup for PSM for Windows based on PHP 8.1

This built is the one included in the PSM Windows Release installer, based on PHP 8.1.011 and MySQL 8.0.030



PSM Software Version 8.06 – 1st of September 2022

Bug Fix: Toner Service Alerts: OK after LOW did not reset trigger counting

If you defined trigger numbers higher than one (for example 3) with the intention, that the level must be LOW after 3 queries in a row, this went wrong. Instead of starting from 0 when the Status goes back from LOW to OK, the counter kept the last number.

This has been corrected. If counting did not reach the Threshold for the “number of times triggered” and the printer reports back an OK status, the counter will reset correctly.

Bug Fix: Printer reboot did not work

If you have setup SNMP SET community strings and/or SNMP v3, you have the possibility to reboot the printer while you are in the detail view of the printer. Because of an error in Version 8.00 – 8.05 this did no longer work. Now it works again.

Enhancement: Threshold before reset

Up until now, PSM assumed, that a part has been replaced when the printer reported a remaining capacity Level higher than 25% than the threshold set. Example:

- Threshold set to 20% : with remaining capacity above 45% we assumed that the part was replaced.

This was the case for both, orders and toner service alerts.

Now you have the possibility to change the threshold for reset to something else. During the upgrade, all profiles will be changed, but the default value after the automatic change will remain 25.

OPTIONAL:	Pages Printed between 2 Orders	<input type="text" value="1200"/>				You can define the Number of Pages that must be printed, before a new Order for the same Part will be executed. This helps to protect against double Orders. If you dont define this value, a default of 600 Pages will be assumed.
OPTIONAL:	Monthly Printing Capacity:		Maximum	Minimum		If you specify the recommended Pages per Month (Maximum / Minimum) for this Printer Model, the Printer will be checked monthly if it is over- or under used. If this is the case, it will be listed in the monthly Report.
OPTIONAL:	Order status reset (Threshold & x Percent)	<input type="text" value="25"/>				Default: Threshold = 25 % . It is assumed, that the consumable has been replaced, when the remaining capacity is x percent higher than the threshold set for the consumable part. Example: If the threshold is set to 20% and the reset is set to = 25% it is assumed that the consumable has been replaced, when the printer reports a remaining capacity of 45% and higher. Normally there is no need to change this value.
OPTIONAL:	Reset of the consumable alert (Threshold & x percent)	<input type="text" value="25"/>				Default: Threshold = 25 % . It is assumed, that the consumable has been replaced, when the remaining capacity is x percent higher than the threshold set for the consumable part. Example: If the threshold is set to 20% and the reset is set to = 25% it is assumed that the consumable has been replaced, when the printer reports a remaining capacity of 45% and higher. Normally there is no need to change this value.

While we do not recommend to change this value for orders, it may make sense when you use toner service alerts. We have found situations on certain printers, which – when one toner is empty, it reports an empty status for all 4 toners.

Imagine, that in real live, the black toner may be empty and the threshold is set to 5%, while the other 3 toners still have values between 10% and 20 %. Because of the printer behaving wrong reported a LOW/Unknown status for all 4 toners, you will receive an alert for all 4 toners. After you replaced the black toner, the printer recovers and now correctly reports 100% for the black toner, and values between 10% and 20% for the others. But since the alert was already sent before, and the Threshold for the reset is 30% (5% trigger + 25% trigger reset) you will not get another alert for the other 3 toners.

In order to handle this, you can define 0% for the toner service alert reset. In the above example the 3 alert status for the 3 wrongly alerted toners would be reset, and another alert would be sent, when they are really reaching a level below the threshold for alerting.

Please note, that this may also lead to double alerts.



Enhancement: Error routines enhanced

After complains from a customer, who has reported that he does not receive any error messages for certain printers in certain situations, we have enhanced the error routines.

Situation 1:

By default, we assumed, that the printer will go in a “down” status, when there is an error. That is, why we have the HR Status MIB set to down by default.

Name of Routine	SNMP OID	Value
HP - Errors only	1.3.6.1.2.1.25.3.2.1.5.1	down

However, this is not true in certain cases: If you got an error, which only affects part of printing (such as certain scanner errors, which still allow printing or an output bin full, when the printer still can print to another output bin), the status reported in the MIB may be different, such as “unknown”. Because of this, some errors will never be triggered.

Change 1:

In order to not be dependent on a specific status, * is now allowed, which will cover all 5 status codes.

Name of Routine	SNMP OID	Value
HP - Errors only	1.3.6.1.2.1.25.3.2.1.5.1	*

Situation 2:

During a deep dive to analyse the 1st Situation, we have also become aware, that some HP printers suddenly loose the complete MIB tree, which normally holds the printer display messages. (Default MIB: .1.3.6.1.2.1.43.18.1.1.8.1). We also found, that the display Buffer MIB still works (MIB: .1.3.6.1.2.1.43.16.5.1.2.1).

Change 2:

In order to be able to cover both display MIBs, when you have setup the profile to search for specific error messages, we have enhanced the profiles and the handling for them, to allow more than one MIB tree to be searched.

In the example below, you can see, that we have specified both display MIBs separated by %.
(.1.3.6.1.2.1.43.18.1.1.8.1%.1.3.6.1.2.1.43.16.5.1.2.1)

Name of Routine	SNMP OID	Value
HP - Errors only	1.3.6.1.2.1.25.3.2.1.5.1	*
then Read the Error Messages out of the MIB-Tree:	1.3.6.1.2.1.43.18.1.1.8.1%.1.3.6.1.2.1.43.16.5.1.2.1	
BUT only, if the Errormessage contains the Words:	30, %31, %32, %33, %34, %35, %36, %37, %38, %39, %40, %41, %42, %43, %44, %45, %46, %47, %48, %49, %50, %51, %52, %53, %54, %55, %56, %57, %58, %59, %	You can specify Words or sentences, separated by % (Percent). Example: Jam%Tray%No Paper%Warning%

Please note, that this is intended as a “fallback”. This means, that the second (or subsequent) MIB tree(s) are only searched, when we find that the 1st (or previous) MIB tree does not exist at all.

If the 1st (or previous) MIB tree exists, but does not contain your search strings, we will NOT search the subsequent MIB trees.



Enhancement: Windows “Auto-Login” (Windows php 7+ based PSM only)

If you have setup LDAP in PSM, you have the possibility to use “auto-login”. In order to get that working, you will need to change the PSM site in IIS, and disable anonymous authentication.

If your browser supports it (tested yet with MS edge), the browser will negotiate with IIS, and the user ID is passed to PSM, which then will verify the user using the LDAP service account specified in the LDAP setup of PSM. If your username is in one of the AD groups specified in the LDAP setup of PSM, you are allowed to login.

If verified, you will be automatically logged in with your windows username.

Please note, that the PSM internal username “admin” is reserved, and will always be a PSM only local user.

Various code changes and bug fixes

We are preparing to get ready for PHP 8.1.

There are a lot of changes in PHP 8.1 compared to previous version. This includes syntax changes, function changes, obsolete functions and a lot more. In order to have PSM compatible from PHP 5.6 up to 8.1 a lot of work had to be done, and in fact most of the programs had to be changed. During this “rework” we also found some minor bugs, which did not affect the operation of PSM, and were probably not even noticed by anybody.

PSM Version 8.06 is a final release for the existing PSM versions out in the field (Raspberry boxes, Appliances, Windows Versions) and is in BETA status for the currently developed Windows PSM, based on PHP 8.1 and the new Raspberry Boxes also based on PHP 8.1.



PSM Software Version 8.05 – 30th of December 2021

Enhancement: Additional fields

The database has been enhanced, to support up to 5 more additional fields to enter information about a printer. The fields can be enabled in the administration section.

Optional field name	Value	show in printers list	show in import/export	show in order emails	show in alerts and error messages	show in reports
Optional field name 01	Zusatzfeld 1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Optional field name 02	Zusatzfeld 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Optional field name 03		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Optional field name 04	Zusatzfeld 4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Optional field name 05	Zusatzfeld 5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Field names

You can give the fields an individual name. If you are using PSM in a multi-language environment, we recommend that you name it, so all users can understand it. If the field name is not specified, it will be disabled automatically. In the table "PRINTERS", these fields will be present as "CustomField01 – CustomField05".

Field usage

You can limit the usage of the additional fields to certain sections of PSM:

- **Show in printers list:** (this should be the minimum setting enabled if you intend to use this feature). Enabling this field, will show the field in the consumables- and printer views as well as in the printer detail view.
- **Show in import/export:** If enabled, this field becomes available in all import / export programs, as well as in the series / mass mutations. You should carefully consider the consequences:
 - o If enabled, all export files will contain this columns, after the location column.
 - o If enabled, and you are using imports: if the import files do not contain these, the import will fail, as the number of column will expect the additional columns. This can be critical, if you are using automatic imports.
 - o If you want to enable the additional columns in the import/export programs, we recommend to first enable it, and then do an export. This way you will get a sample of your future import files have to look like.
- **Show in order mails:** If enabled, the email body will contain the additional fields below the "contact" line. If you have systems which are processing the email order files automatically, the processing could fail, if the process is not taking care of these additional lines.
- **Show in alerts and error messages:** If enabled, the email body will contain the additional fields below the "contact" line. If you have systems which are processing the alerts or error messages automatically, the processing could fail, if the process is not taking care of these additional lines.
- **Show in reports:** If enabled, the additional columns will be shown right of the contact column.

Bug Fix:

The program used by Sysprint to setup MPS customer did not correctly create the Groups, if the Group name contained national characters, such as öäü.



PSM Software Version 8.04 – 8th of September 2021

Enhancement: Stock Administration, automatic XML Orders by FTP/SFTP

The optional “stock feature” has been enhanced. Instead of automatic email ordering, the orders can be routed to the “stock administration” (Lagerverwaltung in German). In the past, you have been able to set minimum stock quantities for every part number. When a printer needed something, it was routed to the stock administration. From there the stock administrator was able to manually generate a list of items needed in excel format. The only use cases for this feature was for one customer who no longer needs it.

A new request asked for the same functionality, but with automatic ordering by FTP or SFTP. This means, that the parts needed from specific printers are still routed to the stock administration, but instead of manually dealing with the needed parts, the order should be automatically sent to a dealer, who processes the order. The only manual step is to add entries in the stock administration, when the parts have been shipped.



A settings screen has been added to allow the setup of this feature:

Stock Administration - Basic settings			
Stock Number		Shipment	
Invoice Company Name		Shipment Company Name	Customer Stock
Invoice Street	Lägere Überweg 1	Shipment Street	Okestrasse 51
Invoice Additional Information	Zusatz Rechnung	Shipment Additional Information	Bunker 1
Invoice PO Box	1234	Shipment PO Box	
Invoice ZIP	9876	Shipment ZIP	9999
Invoice City	Rechnungsart	Shipment City	Lagerhausen
Invoice Country	Schweiz	Shipment Country	Niemandsland
Invoice Phone Number	044 123 45 67	Shipment Phone Number	0041 79 414 26 53
Invoice Email Address	rechnung@mail@test.ch	Shipment Email Address	lager@mail@niemandsland.ax
Supplier		Order transmission parameters	
Supplier Our Customer Number		Transmission type to send the order	SFTP
Supplier Company Name		Server address for the order transmission	ftp.orderdealer.com
Supplier Street		User name for authentication	username
Supplier Additional Information		Password for the authentication (already set)	
Supplier PO Box		Folder path on the server to place the order file	/incoming/order
Supplier ZIP		Automatic order?	<input checked="" type="checkbox"/>
Supplier City		Days to submit the automatic order (11-15)	Wednesday Thursday Friday
Supplier Country	Schweiz	Assigned Supplier Group	Lager Ecomedia
Supplier Phone Number		Automatic goods receipt ?	<input type="checkbox"/>
Supplier Email Address		Automatic goods issue to the devices ?	<input checked="" type="checkbox"/>

Please note, that this feature is only visible and available if you have licensed it. Please contact us, if you would like to have more details about this.

Bug Fix:

Old style automatic reports (monthly CSV reports) were not sent in all cases. There was a bug introduced in Version 8.0, this is fixed now.

PSM Software Version 8.03 – 1st of September 2021

Development Release only

This release was made for debugging purposes only and is not an official release.



PSM Software Version 8.02 – 14th of June 2021

[Bug-Fix: AD/LDAP Login: some users not auto-created](#)

Depending on the AD group membership, which is the base for PSM to assign the appropriate rights, PSM was not able to create the user. This has been corrected. The bug was depending on the underlying MySQL Version, only Version 8 was affected. Therefore this bug was only present on new Windows installation based on PHP 7.3 and MySQL V 8.

PSM Software Version 8.01 – 12th of May 2021

[Bug-Fix: Counter tables not written in some cases](#)

This error has been implemented with PSM Version 8.

Newer implementation of MySQL do not allow empty values to be written to fields defined as INT (integer). In earlier versions, the default of 0 (zero) was taken, while newer implementation will throw an error, which causes the table which holds the daily counters, will not be updated. This update forces zero for empty fields / counters to prevent this behaviour. We recommend to update from version 8.

[Bug-Fix: “ \(Quotation mark\) Character for some values queried by SNMP](#)

This error has been implemented with PSM Version 8.

Depending on the OS level we have seen that some values retrieved by SNMP (such as the printer name or the printer model name) was surrounded by quotation marks. PSM will now check for quotation marks returned by the SNMP GET command, and will eliminate these characters.

If you use PSM Version 8.00 and already have printer model names surrounded by quotation marks, we recommend to edit the printer profile and rename it. Also we recommend to not use quotation marks for the printer name.



PSM Software Version 8.00 – 28th of April 2021

New: SNMP V3 (Read) Support

SNMP V3 is now supported. There are different levels, where you can enable V3:

- At device level: recommended if you only have a very view device which should work with SNMP V3 instead of SNMP V2.
- At Group1 level: recommended if you have a considerable number of devices, which should use V3 instead of V2, or if you got groups of devices with different credentials.
- At Global Level: recommended if you want to use V3 for all devices and they have the same credentials.

Here is an example on how to set SNMPv3 on global level, and how it is corresponding to a HP device setup.

The screenshot displays the PSM software interface for configuring a printer. On the left, a tree view shows the navigation menu with 'Email Setup: Admin Password and Language' selected. The main area is titled 'Define Program Parameters' and contains a table with the following data:

Description	Value
Admin Password	
Retrieve Admin Password	
Language	English
CSV Delimiter	CSV Delimiter (Semicolon or Comma)
Enable Query Logs	NO
Language selectable at Login	<input checked="" type="checkbox"/>
Use fully qualified host names for DNS name resolution	<input checked="" type="checkbox"/>
Global SNMP V1/V2 Read Community Name	*****
Fallback to SNMP V2 if V3 doesn't work	<input checked="" type="checkbox"/>
Global SNMP-read parameters	

Below the table, there are radio buttons for 'SNMP V1/2' and 'SNMP V3', with 'SNMP V3' selected. To the right, there are fields for 'SNMP V3 user name' (admin), 'Authentication protocol' (MD5), 'Privacy protocol' (DES), and 'Context name' (jndirect). On the far right, a window for 'HP Color LaserJet Flow E87660' shows the 'Network Settings' tab with 'SNMP' checked and 'SNMP V3' enabled. The 'SNMP V3' configuration in the printer window includes fields for 'Username' (admin), 'Authentication Protocol' (MD5), 'Privacy Protocol' (DES), and 'Context Name' (jndirect).

Please note, that you can also enable "Fallback". If enabled, PSM will try to establish a V3 connection first. If this does not succeed, PSM will try V2. If V2 then works, PSM will only try V3 again on the next day (to prevent lockouts because of too many unsuccessful attempts.). If you manually update the device status over the browser, it will immediately retry V3.

Considerations for using SNMP V3

There are many discussions going on concerning the use of SNMPv3. We do NOT recommend v3 for most customers.

The reasons why we do not recommend it:

- Half as fast and double the amount of traffic compared to SNMPv2. Since V3 is encrypted, the amount of data is increased. Also the authentication is more complex. V2 is only sending a plain text password (community name).
- There is an administrative effort to setup V3 on the devices which needs to be done.
- If you switch off SNMPv2 on the devices, you can no longer get the status of a devices on windows print servers or clients. This means that if the device has (for example) no more paper, you will not see this in the queue status. Microsoft is still not supporting SNMPv3 to query the printer status.

We recommend to stay with SNMPv2. Maybe you can change the community name away from "public" to something else, to prevent any SNMP capable program to query your devices without any effort. The only information which we would consider as "maybe sensitive" are information such as the names of last print jobs for example.

If you still want to use SNMPv3, be informed, that we have taken a lot of effort to prevent a huge increase in data traffic. We group the queries as much as possible to decrease the amount of authentications needed. Still – you should calculate the times used to query all printers *2 compared to SNMPv2.



Code cleanup and use MySQLi calls instead of MySQL calls

A lot of code cleanup has been performed in version 8. Since it is too technical and people who are not familiar with programming would not understand it, we do not publish the technical details here. If someone wants to know it exactly, we can deliver the information upon request.

Special thanks also goes to Dominik Blunk. He is one of the PSM users, but also programmer, and did quite a lot of the work with the code cleanup.



PSM Software Version 6.xx and 7.xx versions

Older versions have been moved to "[PSM Release Notes Version 7 and older](#)".

PSM Software Version 5.xx and older versions

Older versions have been moved to "PSM Release Notes Version 5 and older".

