



Advanced Knowledge Guide

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History

The Idea to build a System for automatic Supply Ordering came back in 2005. We often used Tools such as HP WebJetAdmin for this, but we found that this Tool was not stable enough. We experienced lots of double Orders and missing Orders from the Printers. This caused lots of additional Work for the Administration and Logistic.

Also when Printers from different Manufacturers are used, each Manufacturer has its own Tool, not compatible in any Way.

In 2006 the first stable Version 1 has been released and has been used with success. Soon other Manufacturers where interested in PSM. They have asked for more Features, such as Error Reporting or Monthly Reporting of Page Counters. In 2007 we released this Features in Version 2 and 3.

With the Inputs from Customers PSM did grow. Additional Knowledge and Ideas where implemented inside PSM to fulfill the Customer needs. In order to not get too expensive, we decided to Split the different Features, so Customers can decide what they need.

What is inside PSM

PSM is a Combination of Encrypted PHP Programs running under an Apache 2 Webserver on an Open-Linux Operating System.

PSM Stores Data inside a MySQL Database, which is installed on the Linux Operating System too.

PSM is using TCP/IP (SNMP) Communication for all Printer-related Operations and can be controlled and configured using a Standard Webbrowser. The WebGui is optimized for Microsoft Internet Explorer 7 and higher, or Firefox Browsers.

Target Customers

PSM targets Customers who wants to have a fully controlled and automated Printer Management.

- They don't want to care about Orders, but they want the Consumable right beside the Printer at the Right Time.
- They don't want to waste Time every Month to send out Page Counters to their Printer Dealer.
- They want to know, if there is a Problem on any Printer
- They want to know their Printers / MFP's are used.

PSM is mostly used in two Ways:

- "Install and forget": Customers installing and configuring PSM, and then don't care, since everything is running automatically.
- "Management Application": Customers who have PSM on their Desktop all Day and actively watching what is going on.



PSM Main Areas

PSM covers the following Topics

Supply Ordering

Supply Ordering is the original and Main purpose of PSM. Printers can be grouped to send Email Orders to different Suppliers. Each Printer Model can be configured with different thresholds for the various Supplies inside the Printer. The Email is structured Text, and it can be used to Feed an ERP System to automatically Process the Orders.

Within the Basic PSM System there is also a possibility to send out csv Files with the current Page Counters to different Recipients, based upon the Groups where the Printers are configured

Error Message Reporting (Optional Feature)

For Each Printer up to 2 Error Profiles can be assigned and the Messages for Profile 1 and 2 can be routed to different Recipients. The Profiles are fully Customizable in Order to Report only what you are interested in.

Toner Service (Optional Feature)

The Toner Service Feature allows an additional Threshold to be set for each Printer Model. It is intended for Companies where the End-users are not allowed to replace the Consumables. These Companies have their own Organization to exchange Consumables.

This Feature only makes sense for Printers who are capable to report the exact Remaining Consumable Levels from 100% - 0%. This is mainly HP.

Reports (Optional Feature)

The Reporting Section allows to Schedule or manually initiate Page Counter Reports and Consumable Usage Reports. These Reports can be defined with a high Number of Filters such as by Group or by Supplier. Also Error Reports are possible to detect Devices with a high Number of Errors.

Stock Management (Optional Feature)

This new Feature, introduced with Version 5, allows Companies, who hold their own Stock of Consumables, the Management of Shipments, Stock and Orders.

Printers assigned to such a Group will not issue an Email Order. The Orders are placed in a Queue. This Queue can be managed by the Stock Inventory Managers and Shipping Lists can be generated to indicate that the Part has been shipped to it's destination.

The Stock Management Section contains:

- A Stock Database with all Parts, gained from the Printer Profiles
- Current Stock Levels, Minimum Holdings, and Open Orders to Suppliers
- A recommendation Screen, which indicates all Parts and Quantities which should be ordered
- A Screen who allows you to book the Parts received from the Supplier
- A Screen who shows all open Orders from Printers, with a Button to Print a Shipping List



Why PSM?

To our knowledge there are 3 well known Products on the Market which do more or less the same Job:

- OM Plus
- PrintFleet
- PSM

So why should you use PSM?

OM Plus and PrintFleet are different to PSM in 4 Major Points:

- Both of them are using only an Agent at the Customer Site. This Agent is collecting the Data from the Printers and deliver it to Central Servers who are processing the Data.
- Both of them are Non-Realtime Products. Since the Agent needs to send its Data to Central Servers, all Notifications are delayed.
- Both of them need to have an Internet Connection to deliver the Data to the Central Servers. Customers cannot control, what Data is sent out, and some Customers do not like – or do not allow it at all – that Data is sent out without Control.
- Both of them are much more expensive than PSM.

PSM is in its current Version installed at Customer Site. The whole Intelligence remains at Customer Site, and the only Traffic who can be sent outside is Email Traffic. If a Customer is concerned about Security, he can configure PSM to send the Mails to someone who checks the Email Contents first, and then forward it to the Supply- or Service Partners.

Where are the Weak Points of PSM?

- Since PSM is installed at the Customer Site, it needs to be maintained. The Customer needs to be trained on how to use PSM.
- If a Hardware Appliance is installed, there is a Risk, that it could need Repair.
- PSM does not have nice and fancy Graphical Reports.

Since we use html and some Javascript (NO Java!!) PSM is very fast. If you want to have nice Reports you can still do it: PSM delivers Statistics as XLS and CSV Files. These Files can be used in other Applications to generate nice Graphics.



Available PSM Versions

PSM is delivered in different Variants. Although the Functionality is the same on all Versions

PSM Lite Appliance



PSM Lite is a small Box, which has two Ethernet 100 Mbit Network Connectors. It is based upon an Industrial PC, which is also used by the Swiss Police. A Compact-Flash is used as Hard disk. The Power Consumption is very Low, only 12 Watts. PSM Lite can be even hooked between an Existing Printer Connection, or mounted behind a Printer.

PSM Lite is suitable for 10-100 Printers

PSM Rack Appliance



The PSM Rack Appliance is made for mounting in a Rack. It uses 2 Height-Units of Space.

Inside there is a Standard ASUS Motherboard and two mirrored Hard Disks of 80GB each.

The Rack Variant is suitable for 50-5000 Printers.

PSM VMWare Images

There are two virtual-Appliance Images available which can be imported into existing VMWare Environments using the VMWare Converter.





One of the Images is based on an open SuSE Version 11 Image, 64 Bit and it is recommended for Enterprise Installations up to 5000 Printers.

The other Image is based upon ubuntu Linux, 32 Bit. We recommend using this Image for Installations of 10-1000 Printers.

PSM Installation

VMWare Appliances

VMWare Appliances can be downloaded from the PSM Forum at http://partner.sysprint.ch/n_forum

Forum	
- PSM - Printer Supply Monitor	
	Firmware Upgrades und Release Notes Hier werden alle Firmware Upgrade und Release Notes veröffentlicht
	Partner Forum Nur für Partner zugänglich Board der Gruppe: Partner
	Profile Exchange Hier können alle User untereinander Profile austauschen
	<u>PSM unter VMWare</u> Hier finden Sie die Anleitungen und Dateien, um PSM als Harddisk Image unter VMWare laufen lassen zu können

VMWare Versions - Download and Setup Instructions

Below you can download one of the PSM Versions, according to your needs.

HIGH PERFORMANCE VERSION (SuSE Linux 11.0 64Bit)

The High Performance Version is built on new SuSE Linux Version 11.0 64-Bit. It contains a 8GB Disk Image, and it is recommended to assign at least 512MB RAM to the Virtual Machine. The Image is made for maximum Performance and it fits perfect for small and Large Installations. This Version is built on PSM Version 4.10, and contains an Evaluation License valid until December 2008.

[Download Virtual Appliance File](#)
[Download VMWare Setup Instructions for this Version \(English\)](#)
[VMWare Converter 3.0.3](#)

Standard Version (Ubuntu Linux 6.10)

This Version contains the 32 Bit Version of Ubuntu Linux 6.10 of PSM. It contains a 2GB Disk Image, and it is recommended to assign at least 256MB RAM to the Virtual Machine. This Image is made for Standart Installations up to aprox 1'000 Printers. If you got more Printers, we recommend to use the SuSE Version.

[PSM-VMWare Image \(392MB\)](#)
[Installation Instructions for this Version \(German/English\)](#)
[VMWare Converter 3.0.3](#)

Evaluation License

[Evaluation License for 50 Printers, valid until 31.12.2008](#)

Manuals

[PSM Kurz-Installationsanleitung Deutsch \(PDF\)](#)
[PSM Quick Installation Guide English \(PDF\)](#)
[PSM Guide d'installation rapide Francais \(PDF\)](#)

All Versions

Hardware Appliances will be delivered with a quick Installation Guide, which describes the first steps, eg. how to Setup Basic Parameters such as IP Address. For VMWare Variants the Installation Guides can be downloaded directly. All Installation Topics are covered in these Manuals. That's why we don't repeat them here again.



PSM Concept – Groups and Profiles

You should make a Concept, before you begin to configure anything inside PSM.

To do this, you need to know how PSM works.

The heart inside PSM is the Groups and the Profiles. So it makes sense, if we begin to Plan and define the Groups first. It will be much easier when you are going to add Printers, if the Groups are already present.

Groups

Groups 1+2

There are 2 Groups (Group 1 and 2) which can be defined for whatever you need it. Most Customers are using Group 1 to Configure the Locations of the Printers, and Group 2 for the Device Type.

Group 1

qoto Group 2 Back

Group1 Names	Email Recipient(s) for Printer Errors	Email Recipient(s) for Statistics		
			Add	
Office London	priner.london@customer.ch		Change	Delete
Zürich Headoffice	printer.london@customer.com		Change	Delete

Group 2

qoto Group 1 Back

Group2 Names	Email Recipient(s) for Printer Errors	Email Recipient(s) for Statistics		
			Add	
Color MFPs			Change	Delete
Color Printers			Change	Delete
Monochrome MFPs			Change	Delete
Monochrome Printers			Change	Delete

Back

Supplier Groups

Supplier Name	Email Recipient(s) for Orders	Email Recipient(s) for Statistics		
			Add	
Consumable Partner London	supplyorders@supplier.co.uk		Change	Delete
Consumable Partner Zürich	supplyorders@supplier.ch		Change	Delete
Stock Zurich	Inventory		Change	Delete

Supplier Groups are used to define, where the Supply Orders should be sent. You can define more than one Recipient, separated by Comma.

If you have licensed the "Inventory" Feature, you can also define "Inventory" as marked in the Example above. Printer in this Group will not send Email Orders, but will send Orders to the Inventory Queue. We will explain that later.



Error Notification Groups

Name of the responsible Team/Person	Email Address for the Notification		
		Add	
Helpdesk London	helpdesk.london@customer.com	Change	Delete
Helpdesk Zürich	helpdesk.zurich@customer.com	Change	Delete

This Group will only be present, if you have licensed the “Error Messages” Feature. It allows you to define Recipients for Error Messages. You can define more than one Recipient, separated by Comma.

Toner Service Groups

Name of the responsible Team/Person	Email Address for the Notification		
		Add	
Printer Service London	pservice.london@customer.com	Change	Delete
Printer Service Zürich	pservice.zurich@customer.com	Change	Delete

The Toner Service Group will only be present, if you have licensed the “Toner Service” Feature. It allows you to define where the Notification should be sent to, when the second Threshold has been reached. You can define more than one Recipient, separated by Comma. We will explain more about that Feature later, when we tell you more about the Printer Profiles.

Profiles

There are 3 different Type of Profiles:

- Counter Profiles
- Error Profiles
- Printer Profiles

All Profiles are containing Information about where to get the relevant Data from the Printer. Since the only Communication which is common to all Network Attached Printers or MFPs is TCP/IP SNMP, the Profiles contain so called Printer MIBs.

There is some Tricky Part about MIBs: They are divided in Public MIBs and in Private MIBs. The Name already says it: Public MIBs are known to the whole world. There are IEEE Rules, what a SNMP Capable Network Printer has to report on the Public MIBs:

- Consumables Type, Maximum Levels, Current Levels
- Error Status and Messages
- Engine Counter
- Printer Information such as Printer Name, Contact Person, Location

MIBs are organized in a similar Way compared to a Windows Folder Structure, but instead of Names, Numbers are used. Such as

.1.3.6.1.2.1.43.11.1.1 which is the MIB Tree for Consumable Parts
.1.3.6.1.2.1.43.11.1.1.9.1.1 which is the Sub-Location for the Current Consumable Level

Unfortunately the Manufacturers have different Ways of understanding, on how they implement the Data.



Counter Profiles

This is probably the worse thing. The only Counter a SNMP Capable Device HAS TO Report, is the Engine Counter. Since this is constant and required according to the IEEE Rules it is hardcoded in PSM and there is no need to configure it.

When it comes to the Detail-Counters it becomes worse. Each Manufacturer has implemented Detail Counters such as Copy, Color Print, Fax and so on, in a different Location within the PRIVATE MIB. Often this Implementation is different from Printer Model to Printer Model.

Sometimes Manufacturers do not even want to tell, where the Counter MIBs are located, and views do not have Counters other than the Engine Counter implemented.

There are some Counter Profiles already inside PSM, and others can be downloaded from our PSM Forum.

Change Counter Profile	
Description	Value
Profile Name	Hewlett-Packard
1 Total Printed Pages	.1.3.6.1.2.1.43.10.2.1.4.1.1
2 Total Pages in Color	.1.3.6.1.4.1.11.2.3.9.4.2.1.4.1.2.7.0
3 A4 Simplex Pages Monochrome	.1.3.6.1.4.1.11.2.3.9.4.2.1.1.16.1.1.1.26.0
4 A4 Simplex Pages Color	.1.3.6.1.4.1.11.2.3.9.4.2.1.1.16.3.1.1.26.0
5 A4 Duplex Pages Monochrome	.1.3.6.1.4.1.11.2.3.9.4.2.1.1.16.1.1.3.26.0
6 A4 Duplex Pages Color	.1.3.6.1.4.1.11.2.3.9.4.2.1.1.16.3.1.3.26.0
7 A3 Simplex Pages Monochrome	.1.3.6.1.4.1.11.2.3.9.4.2.1.1.16.1.1.1.27.0
8 A3 Simplex Pages Color	.1.3.6.1.4.1.11.2.3.9.4.2.1.1.16.3.1.1.27.0
9 A3 Duplex Pages Monochrome	.1.3.6.1.4.1.11.2.3.9.4.2.1.1.16.1.1.3.27.0
10 A3 Duplex Pages Color	.1.3.6.1.4.1.11.2.3.9.4.2.1.1.16.3.1.3.27.0
11 A5 Simplex Pages Monochrome	.1.3.6.1.4.1.11.2.3.9.4.2.1.1.16.1.1.1.25.0
12 A5 Simplex Pages Color	.1.3.6.1.4.1.11.2.3.9.4.2.1.1.16.3.1.1.25.0
13 A5 Duplex Pages Monochrome	.1.3.6.1.4.1.11.2.3.9.4.2.1.1.16.1.1.3.25.0
14 A5 Duplex Pages Color	.1.3.6.1.4.1.11.2.3.9.4.2.1.1.16.3.1.3.25.0
15 Copy Pages	.1.3.6.1.4.1.11.2.3.9.4.2.1.2.2.1.63.0
Description	Value
16 TOTAL	=1
17 Total Color	=2
18 Total Black	=1-:2

There are 15 possible MIB Definitions. Each contains a Name and a MIB, which tells PSM where to look for the Data inside the Printer.

Since there are different Counters for different Manufacturers / Models, there are 3 Additional Columns, where you can define and Calculate the Totals. For example most Color Printers do not have a Black/White Total.

Profile Name	Xerox-6180MFD
Total Impressions	AUTO_XEROX
Black Printed Impressions	AUTO_XEROX
Color Printed Impressions	AUTO_XEROX
Color Impressions	AUTO_XEROX
Black Impressions	AUTO_XEROX
Faxed Impressions	AUTO_XEROX
Network Images Sent	AUTO_XEROX
Email Images Sent	AUTO_XEROX
Black Copied Impressions	AUTO_XEROX
Color Copied Impressions	AUTO_XEROX
Fax Images Sent	AUTO_XEROX
Faxed Impressions	AUTO_XEROX

For Xerox Printers you can use another Method. Since Xerox always has the Description in the Private MIB you can use the exact Description Xerox uses, and specify AUTO_XEROX for the MIB.

PSM will in this Case search for the Description in the MIB Tree and find automatically the MIB where the Counters are located.



A similar Way has been implemented for Ricoh Type Printers (such as Ricoh, Infotec, Nashuatec, Gestetner, and NRG Printers and MFPs). In the following Example, most of the MIBs are searched in the MIB Tree, while other Values are calculated with Formulas. If you are working with Formulas you have to make sure, that the Formula contains only Lines already retrieved. You cannot calculate in Line 1 Values from Line 3 for example.

The Following Example works for most of the above Mentioned Devices. There are however some Devices Ricoh has not manufactured themselves, but bought from another Vendor and sold as OEM. For such Models this Example would not work.

Description	Value
Profile Name	RICOH_AUTO
Counter: Machine Total	AUTO_RICOH
Counter:Print Total	AUTO_RICOH
Counter:Print Full Color	AUTO_RICOH
Counter:Print Black White	AUTO_RICOH
Counter:Print Half Color	=3;-4;-5
Counter:Copy:Total	AUTO_RICOH
Counter:Copy:Full Color	AUTO_RICOH
Counter:Copy:Black White	AUTO_RICOH
Counter:Copy:Single Two-color	AUTO_RICOH
Counter:FAX:Total	AUTO_RICOH
Counter:FAX:Black White	AUTO_RICOH
Counter:Fax 2 Color	=11;-;12
Counter:Black and White Total	=5;+9;+;12
Counter:Color Total	=4;+6;+;8;+;10;+;13

A value of AUTO_RICOH means that the Counter Text is searched in the MIB, and the corresponding MIB Value will be auto-calculated.

DO NOT CHANGE THE TEXT!!
It is important that the Text is matching exactly the Text in the MIB. If it does not match, the corresponding cannot be retrieved.

Ricoh Devices (most of them) do not have a Total Color Counter. Therefore we use a Formula to calculate the Total Color Count. In this Example:

- = Column 4 (Counter:Print Full Color) ;
- + ; Column 6 (Counter:Print Half Color) ;
- + ; Column 8 (Counter:Copy:Full Color) ;
- + ; Column 10 (Counter:Copy:Single Two-color) ;
- + ; Column 13 (Counter:Fax 2 Color)



Error Profiles (Optional Feature)

Error Profiles are used to retrieve the Status of the Printers.

	SNMP OID	Value
Name of Routine	Ricoh - SC Codes only	
if SNMP OID:	1.3.6.1.2.1.25.3.2.1.5.1	has the value. <input type="text" value="down"/>
..AND		
... if SNMP OID	<input type="text"/>	has the value. <input type="text"/>
... or if SNMP OID	<input type="text"/>	has the value. <input type="text"/>
then Read the Error Messages out of the MIB-Tree:	1.3.6.1.2.1.43.18.1.1.8.1	
BUT only, if the ErrorMessage contains the Words:	!SC	You can specify Words or sentences, separated by % (Percent). Example: Jam%Tray%No Paper%Jamming%
...and DOES NOT contain the Words: ..	<input type="text"/>	You can specify Words or sentences, separated by % (Percent). Example: Jam%Tray%No Paper%Jamming%
Report Powered of or unreachable Printers?	<input type="checkbox"/>	If selected, Powered off Printers will be reported. This Setting is only recommended for Printers who should be online all the Time.
Minimum Number of Errors before a Notification is sent	<input type="text" value="0"/>	Enter 0 (Zero) if you want to be notified immediately.
Hours before an Error Message is sent	<input type="text" value="0"/>	Enter 0 (Zero) if you want to be notified immediately. If you Enter a non-Zero Value, you must also Enter a Number higher than 1 for the Minimum Number of Errors. Example: If you Enter 10 for the Minimum Number of Errors and 24 for the Hours, Before an Error is Sent, the Notification will be sent if there are 10 or more Errors within the last 24 Hours.

MIB OID which is queried to get the Error Status of a Device, and Status which is used to trigger, if there is an Error or not.

MIB OID which is queried to read the Error Message.

Filters which can be defined to refine what Text the Error Message must and must not contain.

If you want to have Devices not responding reported as Errors (eg. Powered Off Devices) you can select this Tab.

Normally PSM Triggers the Error as soon as the Filter Matches the Result queried from the Printer. This happens if **1** and **2** are 0 or not defined.

There are however 2 more possibilities.

Number of Times the Error has been detected

If you fill in a non Zero Value in Field **1**, PSM triggers the Error and the Device is marked red, but only if the Filter matches 3 Times in a row, an Error Message is sent.

Number of Errors within Timeframe

If you fill in a value higher than one for both Fields **1** + **2**, PSM looks for the Number of Errors (**1**) within the specified Number of Hours (**2**). If the Threshold is reached, PSM will send an Error Message. No further Message will be sent for the amount of Hours (**2**) you have specified.

Specifying a Profile this Way makes sense for preventive Maintenance, for example when you decide to send the Error Message to a Service Partner.

Which Way to use?

Since there can be 2 different Profiles assigned for one Device, we recommend to use a Standard Profile and route the Messages to an Internal Help Desk, and a Profile with "Number of Errors within Timeframe" and route the Messages to a Service Desk.



Printer Profiles

Printer Profiles are used to query the Consumable Levels and Part Descriptions from the Printers. If you add a new Printer Model which PSM does not know, it will automatically create a new Profile and you will be informed on the Main Screen, that there are Profiles to check.

Part Number	Consumable Description	Threshold Value (%) (for Orders)	Threshold Value (%) (for Service)	Maximum Capacity	Printer MIB to retrieve the remaining Pages
Q6460A	Black Cartridge HP Q6460A	20	5	12000	1.3.6.1.2.1.43.11.1.1.9.1.1
Q6461A	Cyan Cartridge HP Q6461A	20	5	12000	1.3.6.1.2.1.43.11.1.1.9.1.2
Q6463A	Magenta Cartridge HP Q6463A	20	5	12000	1.3.6.1.2.1.43.11.1.1.9.1.3
Q6462A	Yellow Cartridge HP Q6462A	20	5	12000	1.3.6.1.2.1.43.11.1.1.9.1.4
Q7504A	Image Transfer Kit HP Q7504A	20	5	120000	1.3.6.1.2.1.43.11.1.1.9.1.5
Q7503A	Image Fuser Kit HP 110V-Q7502A, 220V-Q75	20	5	150000	1.3.6.1.2.1.43.11.1.1.9.1.6
Q5997A	Document Feeder Kit HP Q5997A	20	5	80000	1.3.6.1.2.1.43.11.1.1.9.1.7
OPTIONAL: Pre Selected Counter Profile	Hewlett-Packard				
OPTIONAL: Pre Selected Error Profile 1	HP - Errors only Notify the following Groups in case of Errors: <input type="checkbox"/> Group1 <input type="checkbox"/> Group2 <input checked="" type="checkbox"/> Error Notification Group				
OPTIONAL: Pre Selected Error Profile 2	None Notify the following Groups in case of Errors: <input type="checkbox"/> Group1 <input type="checkbox"/> Group2 <input type="checkbox"/> Error Notification Group				
OPTIONAL: 10	Pages Printed between 2 Orders	600			You can define the number of Pages that must be printed, before a new Order for the same Part will be accepted. This helps to prevent against abusive Orders. If you don't define this value, a default of 600 Pages will be assumed.
OPTIONAL: 11	Monthly Printing Capacity:		Maximum	Minimum	If you specify the recommended Pages per Month (Maximum / Minimum) for this Printer Model, the Printer will be updated monthly if it is order or under used. If this is the case, it will be listed in the monthly Report.

Save Save and Apply Back

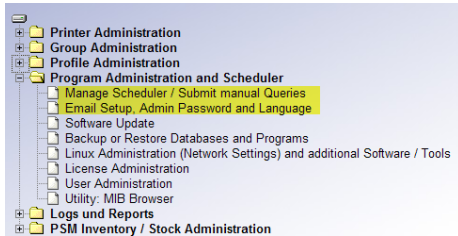
1. Part Number: This has to be Entered manually most of the Time, because the Printers do not deliver any Information about that.
2. Part Description: This is usually auto-detected. However you can overwrite the Description.
3. Threshold for the Part Ordering in %. For Parts such as Fuser we recommend a lower Threshold.
4. Threshold when the Toner Service Group is notified (Optional Feature "Toner Service"). This works only if the Printer is capable of reporting from 100% - 0%. For Example it wouldn't work with Ricoh Printers, since they Report for everything below 20% just "LOW".
5. Maximum Capacity of the Part. We recommend leaving this Value as it is! Some Printers report in Grams, some in Number of Pages, some in Percent. The only exception which requires a change is, if the Profile has been auto-created with a Printer using a Starter-Toner, which has lower Capacity. In this Case, this Value should be changed to the correct Value from a High-Capacity Toner
6. The MIB should be changed only, if you know exactly what you are doing!
7. The Default Counter Profile you want to assign to this Printer Model
8. The Default Error Profile 1 and Notification Group(s) you want to assign with this Printer Model **
9. The Default Error Profile 2 and Notification Group(s) you want to assign with this Printer Model **
10. Number of Pages which must be printed before an additional Order for the same Part will be accepted
11. Optionally (if you know it) you can define, for how many Pages per Month (Minimum and Maximum) this Printer Model is suitable. If you define the Values, they will be calculated in the Page Counter Reports and it will be shown, if the Device is used with an appropriate Load.

** If you assign Default Counter- and Error Profiles, they will be assigned by default if not specified when adding a new Printer. If you Click "Save" the Profile will be saved.
Pay attention if you Click on "Save and Apply": If you do this, all Printers with this Profile will be changed.



General Settings

There are some General Settings to be defined. First of all you should verify the Email and Administrative Settings.



You should change the default Password which is "psm" to something else.

For the Email Setup we recommend to use an existing internal Company Mail-Server, and create a User Account and Password for PSM. Most Email Servers won't let you send Emails to external Destinations without an authenticated User.

Description	Value
Admin Password	
Retype Admin Password	
Language	English
CSV Delimiter	:
Enable Query Logs	NO
Global SNMP Read-Community Name	public
Global SNMP Write Community Name	
License Number	
Email Server	192.168.200.21
Email Sender (from) Address	sender@yourcompany.com
Email Userid	user
Email Password	*****
Email Recipient(s) for Statistics	
Email Recipient(s) for Printer Errors	admin@customer.com
Email Recipient(s) for Orders	admin@customer.com
Mask IP Addresses in Reports/Orders	<input type="checkbox"/> If checked, IP Addresses will be masked with XXXXXXXX in all Reports and Email Order
Email Subject for Orders	SUPPLY ORDER%
Email Footer for Orders	Disclaimer....
General Email Recipient(s)	admin@customer.com
Test Email Setup	
<input type="button" value="Save Changes"/> <input type="button" value="Back"/>	

We also recommend to specify General Recipients for Orders, General belongings and Errors. In case you forgot to add a Printer to a Group, the Email goes to the General Recipients.

If you have a small installation, it sometimes makes sense to not use any Group at all and only use the General Recipients.

You should specify a Subject for Email Orders. If you put a % sign at the End of the Subject, PSM will insert the Printer Names on the Subject Line. An additional Footnote such as a Disclaimer can be defined, if you wish.

For Security Reason, you can also prevent IP Addresses from being shown in the Email Orders and Report Attachments. PSM will in this case replace the IP Address with XXXXXX.

Description	Value	Last run	
Query Interval in Minutes	10	27-10-2009 10:10	Values between 5 Minutes and 300 Minutes (5 Hours) are possible.
1th Order sent at (eg. 14:00)	14:00		Start Time and Interval of captured Orders. The starting Time can be setup individually, the Interval can be set from 5 Minutes to 300 Minutes (5 Hours).
Interval of Email sending in Hours	24	27-10-2009 14:01	
Only Orders for one Printer for each Email	<input type="checkbox"/>		If you choose this Option, PSM will generate one Email for each Printer where there is something to order. If unchecked PSM will concatenate all Orders into a single Email (default).
Daily Test Email	<input type="checkbox"/>		If activated, an Email will be sent to inform you about the Status of the System. This Mail will be sent at the same time selected for Orders.
Email Address for Daily Testmail			
Total Reports at 1th of each month	<input checked="" type="checkbox"/>	28-10-2009 10:30	Monthly Email containing 3 Files: 1 Summary Report in csv Format, 1 html File with the Total Consumables ordered, and 1 html File with detailed Informations about each Printer. These reports are cumulative.
Separate Report for all Group1 Groups	<input type="checkbox"/>		Same as above, but one Email for each Group Name within Group1 will be sent. This only works for those Groups with defined Email Addresses for Statistic.
Separate Report for all Group2 Groups	<input type="checkbox"/>		Same as above, but one Email for each Group Name within Group2 will be sent. This only works for those Groups with defined Email Addresses for Statistic.
Separate Report for all Supplier Groups	<input checked="" type="checkbox"/>		Same as above, but one Email for each Supplier Group will be sent. This only works for those Groups with defined Email Addresses for Statistic.

Description	Action	Currently running Queries
Manual Printer Query	<input type="button" value="Run now"/>	<input type="button" value="Show Printer Status"/>
Manual Email sending	<input type="button" value="Run now"/>	
Generate Statistics	<input type="button" value="Run now"/>	

The Scheduled Task Management lets you define, how often the defined Printers should be queried, and how often Emails with Orders are sent. If you are using the Error Messages Feature we recommend a low Query Interval, such as 30 Minutes. For the sending of Emails usually at 2pm and once a Day is good enough.

You can additionally choose, if PSM should send all Orders in one single Email (per Supplier) or if it should send one Email per Printer. It is also advisable, to specify a Daily Test mail, to ensure that nobody has powered off PSM. Of course you can start all of the above Tasks also manually by Clicking on the Button.



Licensing

You cannot do anything without a valid License. If the License has expired PSM will continue to function, but it will not allow you to make any changes. Also a Warning Message will be shown on the Main Screen and inserted in all Email Orders.

A License contains:

- The Number of Licensed Printers
- The Company Name of the Enduser
- License Number
- License Start / End
- Licensed Features

If your License has expired, you will be routed to the License Screen automatically. Once you have received a License File, you can upload it to PSM.

“Owner Information” is not used for the Licensing. However, if specified, it will be sent with every Consumable Order.

The screenshot shows the 'License Administration' interface. It includes a table for license details, a section for 'Licensed Options' with checkboxes, and a section for 'Owner Information' with input fields. Below the form is a 'Save Changes' button and a section for 'Add new License File' with a file selection button and an 'Upload License File' button. A 'Back' button is also present.

License Administration		
Licensed Number of Printers:	0650	
Licensed to Company:	Evaluation Demo	
License issued:	27.09.2009 / 05.09.13	
License valid until:	26.12.2009	
License Number:	270909050913	
Licensed Options		
Error Message Notifications	<input checked="" type="checkbox"/>	
Toner Service Notification (2nd. Threshold)	<input checked="" type="checkbox"/>	
Reports, Evaluations and Automation	<input checked="" type="checkbox"/>	
PSM Inventory / Stock Administration	<input checked="" type="checkbox"/>	
Owner Informations		
Company Name	<input type="text"/>	<small>These Informations will be sent at the Bottom of Email Orders</small>
Department	<input type="text"/>	<small>These Informations will be sent at the Bottom of Email Orders</small>
Contact Person	<input type="text"/>	<small>These Informations will be sent at the Bottom of Email Orders</small>
Street	<input type="text"/>	<small>These Informations will be sent at the Bottom of Email Orders</small>
ZIP / Town	<input type="text"/>	<small>These Informations will be sent at the Bottom of Email Orders</small>
Country	<input type="text"/>	<small>These Informations will be sent at the Bottom of Email Orders</small>
Phone Number	<input type="text"/>	<small>These Informations will be sent at the Bottom of Email Orders</small>
Email Address	<input type="text"/>	<small>These Informations will be sent at the Bottom of Email Orders</small>

Save Changes

Add new License File

Choose License File:

Software Update

We recommend that you subscribe to our PSM Forum at http://partner.sysprint.ch/n_forum. Subscribed Users will automatically be notified, when we release a new Version. On the Forum you can also Download VMWare Editions of PSM for Free, and some other useful Stuff.

We always recommend checking the Forum for the latest Version, when you install a new PSM.

Updating is very easy: Just download the latest Version (the Files are always around 2MB), store it on a PC and upload it to PSM. Usually updating is a matter of Seconds.

The only Exception is Version 5.04. If you install 5.04 on an existing PSM with many Printers defined, the Update make take up to 10 Minutes, depending on how many Printers you have defined inside PSM.

The screenshot shows the 'Program Version Update' interface. It features a title bar, a red notification message, and a form for selecting an update package. The form includes a text input field, a 'Durchsuchen...' button, and an 'Install update' button.

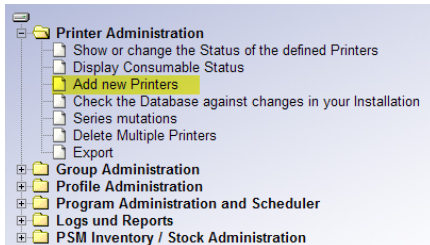
Program Version Update

Databases are in Version 5.04

Select update Package (Vx.x.PSM.tar)



Adding Printers



Finally we are now ready to add Printers to PSM!

There are different Methods to add Printers. In any Way: If you add Printers, choose "Add Printers" from the Main Menu

Defining "Pre-Defined" Ranges

Pre-Defined Ranges can be useful if you have to scan many IP Ranges, it can be useful as well if you want to create some settings Templates.



	Value	
Name of predefined Query	Printers London	Save Changes
IP Range	192 . 168 . 200 . 1 to 192 . 168 . 202 . 254	
Resolve IP Hostnames by Reverse DNS query	<input checked="" type="checkbox"/>	
Timeout (100-2000 ms)	50	
Group1 pre Selection	Office London	
Group2 pre Selection	Color MFPs	
Error Notification Group	Helpdesk London	
Toner Service Group	Printer Service London	
Consumables Supplier	Consumable Partner London	
Pre Selected Counter Profile	Ricoh Color Copier with Fax	
Pre Selected Error Profile 1	Ricoh Notify the following Groups in case of Errors <input checked="" type="checkbox"/> Group1 <input type="checkbox"/> Group2 <input type="checkbox"/> Error Notification Group	
Pre Selected Error Profile 2	Ricoh - SC Codes only Notify the following Groups in case of Errors <input type="checkbox"/> Group1 <input checked="" type="checkbox"/> Group2 <input type="checkbox"/> Error Notification Group	
pre-selected as Standard Query	<input checked="" type="checkbox"/>	
Printer SNMP Read-Community Name		Use only, if different from the global Read-Community Name
Printer SNMP Write Community Name		Use only, if different from the global Write-Community Name

Lets assume that we need to define a Search Template for London. We know the IP Range, and we know that there are mostly Ricoh Machines, MFPs with Color and Fax. So we can pre-Define such a Template. When this template is used later for searching Printers, all Printers found will use this Setting (although you still can change some Printers, before adding them).

NB: You will probably have some "ahhh" experience, when you look at the Picture. Here we have assigned 2 Error Profiles and routed the Messages to different Groups. Remember ?

Scanning Pre-Defined Ranges



The Query will run in the Background. The Processing Time is dependent on the Number of Printers - Process ID: 9416



If you mark the Range(s) to be queried, and Click "Start Query", PSM will do a Background Scan of all marked Ranges.

PSM will show the Start Time of the Scan. You can Click on Refresh or you can wait for an Email sent to the "General Email Recipients" to arrive, informing you that the Scan has been completed.



Once the Scan has been completed you can Click on "" to show the Scanning Result.



The Scan Results will be shown in a Table like the one below. Only Printers not already added to PSM will be shown. You can decide to not add some of them by removing the Checkbox in Front of the Line, or to change some Settings. Once you Click on "Save" the Printer(s) will be added to the Database.

Serial Number	IP Address / Host Name	Printer Name	Contact Person	Location	Printer Model	Serial Number	Asset Number	Association Group	Association Group2	Error Notification Group	Toner Service Group	Consumables Supplier	Profile for the Query of Counters	Error Number 1	Profile for the Query of Counters	Error Number 2	Check the Existing Entry of Counter	Local Address	Account Number	Printer Model	Change Counter	Change Counter	
10214620053	pr053				HP color LaserJet 9500 MFP		81577	Zürich Headoffice		Helpdesk Zürich	Printer Service Zürich	Stock Zürich	Hewlett-Packard	HP - Errors only									
10214620051	pr051				HP color LaserJet 9500 MFP		81577	Zürich Headoffice		Helpdesk Zürich	Printer Service Zürich	Stock Zürich	Hewlett-Packard	HP - Errors only									

Scanning a Single Class C Range

Realtime Scan for new Printers within a Class C IP Range

Query Class C IP Range	Value	
Optional: Use the following Template		
IP Range	192 . 168 . 200 . 200 to 254 Query Class C IP Range	
Resolve IP Hostnames by Reverse DNS query	<input type="checkbox"/>	
Timeout (100-2000 ms)	100	
Group 1 pre Selection	Zürich Headoffice	
Group 2 pre Selection		
Error Notification Group	Helpdesk Zürich	
Toner Service Group	Printer Service Zürich	
Consumables Supplier	Stock Zürich	
Pre Selected Counter Profile	Hewlett-Packard	
Pre Selected Error Profile 1	Ricoh Notify the following Groups in case of Errors: <input checked="" type="checkbox"/> Group1 <input type="checkbox"/> Group2 <input type="checkbox"/> Error Notification Group	
Pre Selected Error Profile 2	Ricoh - SC Codes only Notify the following Groups in case of Errors: <input type="checkbox"/> Group1 <input type="checkbox"/> Group2 <input checked="" type="checkbox"/> Error Notification Group	
Printer SNMP Read-Community Name		<small>Use only, if different from the global Read-Community Name</small>
Printer SNMP Write Community Name		<small>Use only, if different from the global Write-Community Name</small>
Optional: Store as predefined Query Scheme	<input type="checkbox"/>	
pre-select as Standard Query	<input type="checkbox"/>	
Name of predefined Query		

Buttons: Back to Printer Overview, Back to the Main Menu

The behavior for scanning a single Class C Range is exactly the same as it is for the Scanning of pre-defined Ranges. You can also choose the Settings from a Template, or define them manually.

The Scanning of a Class C Range is Real-time and does not run in the Background. However the Resulting Table is exactly as the one above and the same Rules apply.

Query a single Printer

Query a single Printer

Query a single Printer	Value	
IP Address / Host Name		Query a single Printer
Optional: Use the following Template	Printers Zürich	
Resolve IP Hostnames by Reverse DNS query	<input checked="" type="checkbox"/>	

Description	Value	
IP Address / Host Name	192.168.200.53	
Printer Name	pr053	
Contact Person	Peter Bond	
Location	Headoffice Zürich, 1st Floor, Office 103	
Asset Number	81577	
Association Group1	Zürich Headoffice	
Association Group2		
Error Notification Group	Helpdesk Zürich	
Toner Service Group	Printer Service Zürich	
Consumables Supplier	Stock Zürich	
Printer Model	hp color LaserJet 9500 MFP	
Profile for the Query of Counters	Hewlett-Packard	
Name of Routine 1	Hewlett-Packard Notify the following Groups in case of Errors: <input checked="" type="checkbox"/> Group1 <input type="checkbox"/> Group2 <input type="checkbox"/> Error Notification Group	
Name of Routine 2	HP - Errors only Notify the following Groups in case of Errors: <input type="checkbox"/> Group1 <input type="checkbox"/> Group2 <input checked="" type="checkbox"/> Error Notification Group	
Printer SNMP Read-Community Name		<small>Use only, if differer</small>
Printer SNMP Write Community Name		<small>Use only, if differer</small>
Email Address of Printer Owner		
Serial Number	JPVFF06654	

Querying a single Printer is the easiest Way of adding just a single Printer. Just Type in the IP Address or Host Name and Click "Query a single Printer"

The Result of a Single-Printer Search will be displayed directly. You can choose to change some Parameters before you add the Printer by Clicking "Save".



Adding Printers by Import

Add new Printers by Import from a CSV File

Import a Profile (.sysprint)

Optional: Use the following Template

Resolve IP Hostnames by Reverse DNS query

Delete existing Printers who are not in Import File USE ONLY IF YOU ARE SURE!

Automatic Import of a CSV File from an FTP Server every Night

Activate FTP Import

FTP Server Address or Hostname

SSL Encryption

FTP Port Number (default=21)

FTP User Name

Password

FTP Directory (e.g. /home/user/)

Email Notification to the following Address(es):

Optional: Use the following Template

Resolve IP Hostnames by Reverse DNS query

Delete existing Printers who are not in Import File USE ONLY IF YOU ARE SURE!

Adding Printers by Import can be done directly by pointing to the Import-CSV File or automatically by specifying an FTP Server, Userid, Password and Location, where PSM should get the Import File.

If you choose the automatic Import, PSM will import every Night at 11pm. This Method is useful if you "Feed" PSM for example from an Active Directory Export or from an Inventory List.

Regardless of which Method you choose, the Minimum Requirement is to specify the IP Address. The more you specify the better PSM can create the Entry for the Printer. If you omit for Example the Printer Model, PSM will try the IP Address to find out what Printer it is.

If you specify Group Names not existing inside PSM, PSM will auto-Create the Groups.

If you Click on the Question Mark, there is additional Information available, and you will find a download Link for a sample CSV File for the Import.

Adding printers manually

You can also add Printer manually by specifying all Information. This Method is useful only if you don't have that Printer in the Network yet.

For example, you know that there will be a new Printer delivered while you are in Holliday. You can already add the Printer to PSM, even if it is not yet present.

Description	Value
IP Address / Host Name	192.168.200.53
Printer Name	pr053
Contact Person	Peter Bond
Location	Headoffice Zurich, 1th Floor, Office 103
Asset Number	81577
Association Group1	Zurich Headoffice
Association Group2	
Error Notification Group	Helpdesk Zurich
Toner Service Group	Printer Service Zurich
Consumables Supplier	Stock Zurich
Printer Model	hp color LaserJet 9500 MFP
Profile for the Query of Counters	Hewlett-Packard
Name of Routine 1	Hewlett-Packard notify the following Groups in case of Errors: <input checked="" type="checkbox"/> Group1 <input type="checkbox"/> Group2 <input type="checkbox"/> Error Notification Group
Name of Routine 2	HP - Errors only notify the following Groups in case of Errors: <input type="checkbox"/> Group1 <input type="checkbox"/> Group2 <input checked="" type="checkbox"/> Error Notification Group
Printer SNMP Read-Community Name	<input type="text"/> <small>use only, if differ</small>
Printer SNMP Write-Community Name	<input type="text"/> <small>use only, if differ</small>
Email Address of Printer Owner	<input type="text"/>
Serial Number	JPVFF06654



Logs and Reports

Order History and Printer Error Logs

This Section is available on all PSM Versions. It does not require any Special Feature License. PSM constantly writes all Events to the Database. There are 3 main Sections to Search and Display Log Entries from the Database.

Search Orders

Search by Order Number (Number or Number-Number) -

Search by Date (Date or Date-Date, e.g. 23-07-2006) -

Search by Printer IP Address or IP Host Name

Only Devices within the following Supplier Group

Consumable Partner London
Consumable Partner Zurich
Stock Zurich

Search Orders allows you to search Orders within a specific Timeframe, Supplier Group, Order Number, or Printer Address. The Result will be displayed in a Table.

Search Printer Errors / Reports

Search by Ticket Number (Number or Number-Number) -

Search by Date (Date or Date-Date, e.g. 23-07-2006) -

Search by Printer IP Address or IP Host Name

Serial Number

Error Message:

Only Devices within the following Group 1

Office London
Zürich Headoffice

Only Devices within the following Group 2

Color MFPs
Color Printers
Monochrome MFPs

Only Devices within the following Group Toner Service Group

Printer Service London
Printer Service Zurich

Dont show Offline- or powered off Printers

Do not show Toner Service Alerts

No System System Messages

Printer Error Logs will be searchable at least for the last 3 Months. Depending on the Log File Size, older Log Entries will be deleted.

There are various Filters available to Display only what you are looking for.

Hint: If you are looking for a complete Log of a particular Printer, we recommend to use the Printer Details in the Printer Administration, because this will also search the same Log and already has the correct Filters set.

Display Log of automated Imports

Search by Date (Date or Date-Date, e.g. 23-07-2006) -

Search by Printer IP Address or IP Host Name

Serial Number

Log for automated Imports is interesting only if you use the "Auto Import" possibility in the Add Printer Section. In this case the Result of the Imports can be displayed here.

Reports and Evaluations

This Section is available only, if you have licensed the "Reporting" Feature. The Reporting Section allows you to create as many Report Definitions as you like. The Reports can be automated to be executed every Week, Month, or Year.

If you want to create a new Report Definition Click on "Create/Change".

Run Reports or Evaluations

←

Query Name	Query Type	Automatic per Week	Automatic per Month	Automatic per Year	Restrict Date (e.g. 01-01-2007 to 31-12-2007)	Results by Email to:	Action
London - Weekly Page Counter Summary	1 - Printed Pages by Device & Number of Errors	Y			<input type="text"/> - <input type="text"/>	accounting-london@	
Zürich - Weekly Page Counter Summary	1 - Printed Pages by Device & Number of Errors	Y			<input type="text"/> - <input type="text"/>	accounting-zurich@	



Define and Manage Reports and Evaluations

Query Name: Zürich - Weekly Page Counter Summary

Query Type: 1 - Printed Pages by Device & Number of Errors

Calculate Pages starting from 0:

Only Devices within the following Group 1: Office London, Zürich Headoffice

Only Devices within the following Group 2: Color MFPs, Color Printers, Monochrome MFPs

Only Devices within the following Error Notification Group: Helpdesk London, Helpdesk Zürich

Only Devices within the following Group Toner Service Group: Printer Service London, Printer Service Zürich

Only Devices within the following Supplier Group: Consumable Partner London, Consumable Partner Zürich, Stock Zürich

Only Devices within the following Counter Profile: none

The Report Definition Screen allows you to define copy or delete Report Definitions.

If you want to create an automatic Report, use one of the Checkboxes, to choose if you want to have it weekly, monthly or yearly. Automatic Reports require at least an Email Address.

There are a lot of possible Filters to choose, to refine, which Devices should appear in your Report. If you don't set any Filter, all Devices will appear in your Report. Automatic Reports will be sent as XLS and CSV Mail Attachments.





Important:

Some Users want to know the Results in TOTAL, some others want to have it "within the chosen Time Period". If you want to generate the Report to contain the Absolute Total, then use the Checkbox "Calculate Pages starting from 0". If you do this, the Report will contain the Page Counters from the End-Date.

Reports can be executed anytime, including the automatic Report Definitions. If you want to run an automatic Report manually, you will have to Enter a Start- and an End Date. After you can Click on the "Execute Report" Icon.

Run Reports or Evaluations

Create / Change

Query Name	Query Type	Automatic per Week	Automatic per Month	Automatic per Year	Restrict Date (e.g. 01-01-2007 to 31-12-2007)	Results by Email to:	Action
London - Weekly Page Counter Summary	1 - Printed Pages by Device & Number of Errors	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		accounting-london@	 
Zürich - Weekly Page Counter Summary	1 - Printed Pages by Device & Number of Errors	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		accounting-zurich@	 

Change a Report Definition (points to magnifying glass icon)

Execute a Report (points to document icon)

A Page Counter Summary Report could look like this:

Hostname / IP Address	Printer-Name	Number	Contact	Location	Printer Model	Serialnumber	Creation Date	Number of Errors	Times gone Offline	Current Engine Counter	Engine Counts	Total	Total Color	Total Monochrome	Average utilization
XXXXXX	CHP8110	8110	Helpdesk Zürich	Zürich Head Office 1th Floor	MP 4500	M2873401111	24.08.2008	0	0	271194	7198	7198			82%
XXXXXX	CHP8111	8111	Helpdesk Zürich	Zürich Head Office 2nd Floor	MP 4500	M2873101112	10.04.2009	0	0	725705	27441	27441			236%
XXXXXX	CHP8112	8112	Helpdesk Zürich	Zürich Head Office 2nd Floor	MP 3500	M2763601113	24.08.2008	0	0	175493	7313	7313			75%
XXXXXX	CHP8113	8113	Helpdesk Zürich	Zürich Head Office 2nd Floor	MP 4500	M2873301114	17.10.2008	0	0	293991	13997	13997			120%
XXXXXX	CHP8114	8114	Helpdesk Zürich	Zürich Head Office 2nd Floor	MP 3500	M2773301115	24.08.2008	0	0	208135	5406	5406			55%
XXXXXX	CHP8115	8115	Helpdesk Zürich	Zürich Head Office 2nd Floor	MP 4500	M2873301116	24.08.2008	0	0	319519	12341	12341			108%
XXXXXX	CHP8116	8116	Helpdesk Zürich	Zürich Head Office 1th Floor	MP 4500	M2873301117	24.08.2008	0	0	323788	14518	14518			125%
XXXXXX	CHP8118	8118	Helpdesk Zürich	Zürich Head Office 2nd Floor	MP 4500	M2873401118	24.08.2008	2	0	344489	14491	14491			124%
XXXXXX	CHP8117	8117	Helpdesk Zürich	Zürich Head Office 2nd Floor	MP 3500	M2763601119	24.08.2008	0	0	85742	2839	2839			29%
XXXXXX	CHP8101	8101	Helpdesk Zürich	Zürich Head Office 2nd Floor	MP 3500	M2763601120	24.08.2008	0	0	134320	3172	3172			32%
XXXXXX	CHP8120	8120	Helpdesk Zürich	Zürich Head Office 2nd Floor	MP C4500	L9074201121	24.08.2008	0	0	406904	15403	15403	12217	3186	109%
XXXXXX	CHP8221	8221	Helpdesk Zürich	Zürich Head Office 2nd Floor	MP C4500	L9083701122	15.06.2009	0	0	123574	14321	14321	5088	9233	102%
XXXXXX	CHP8321	8321	Helpdesk Zürich	Zürich Head Office 1th Floor	MP C4500	L9084201123	16.10.2008	0	0	278488	20461	20461	5977	14484	145%
XXXXXX	CHP8233	8233	Helpdesk Zürich	Zürich Head Office 2nd Floor	MP C4500	L9074601124	24.08.2008	0	0	193722	10032	10032	3843	6189	71%
XXXXXX	CHP8512	8512	Helpdesk Zürich	Zürich Head Office 2nd Floor	MP C4500	L9074600125	24.08.2008	0	0	498285	17670	17670	7380	10290	126%
XXXXXX	CHP9987	9987	Helpdesk Zürich	Zürich Head Office 2nd Floor	MP C4500	L9074601284	24.08.2008	0	0	302544	12361	12361	4621	7740	88%
XXXXXX	CHP5990	5990	Helpdesk Zürich	Zürich Head Office 1th Floor	MP C4500	L9074401525	24.08.2008	0	0	418714	17102	17102	4888	12214	122%
XXXXXX	CHP3222	3222	Helpdesk Zürich	Zürich Head Office 2nd Floor	MP C4500	L9074604844	24.08.2008	0	0	261422	13285	13285	10168	3117	94%
XXXXXX	CHP5778	5778	Helpdesk Zürich	Zürich Head Office 2nd Floor	MP C4500	L9074608548	24.08.2008	0	0	335246	10403	10403	6870	3533	74%
TOTAL								2	0	5701275	239754	239754	61052	69986	



A Summary of used Consumable could look like this:

Quantity	Part Number	Consumable Description
4	DT4500BLK	Toner
4	DTC4500BLK	Toner Schwarz
3	DTC4500CYN	Toner Cyan
2	DTC4500YLW	Toner Gelb
1	TDB3000	Resttoner 1

A Summary of Errors for the chosen Group / Time Period could look like this. It is basically the same as if you would use the "Log" Section to query for Errors.

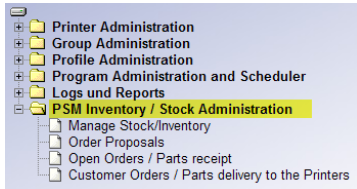
Total results found: 10

Ticket-Number	Date	Time	Affected Printers - IP Address or IP Host Name	Serial Number	Page Count	Details
1276155	2009-09-30	19:42:00	10.0.0.1	1	35950	Papierstau: Interne Ausgabe {42001} Papierstau: Duplexeinheit {42009}
1275707	2009-09-30	16:42:00	10.0.0.1	1	35947	Papierstau: Interne Ausgabe {42001} Papierstau: Duplexeinheit {42009}
1275567	2009-09-30	15:48:00	10.0.0.1	1	35947	Papierstau: Interne Ausgabe {42001} Papierstau: Duplexeinheit {42009}
1271440	2009-09-29	11:00:00	10.0.0.1	5	51301	Papierstau: Einzugsmagazin {42000} Nicht erkannt: Einzugsmagazin {41200}
1271303	2009-09-29	10:06:00	10.0.0.1	5	51301	Papierstau: Einzugsmagazin {42000}
1262544	2009-09-26	16:02:00	10.0.0.1	1	270615	No Paper: Tray 2 {13300} No Paper: Tray 3 {13400} Paper Misfeed: Finisher {42005}
1248318	2009-09-22	10:02:00	10.0.0.1	5	45543	Paper Misfeed: Internal/Output {42001} Paper Misfeed: Input Tray {42000}
1245693	2009-09-21	15:11:00	10.0.0.1	2	27466	Papierstau: Interne Ausgabe {42001} Papierstau: Duplexeinheit {42009}
1223111	2009-09-15	02:17:00	10.0.0.1	5	334202	Kein Papier: Magazin 1 {13200} Papierstau: Einzugsmagazin {42000}
1212056	2009-09-11	22:01:00	10.0.0.1	5	333284	Papierstau: Einzugsmagazin {42000}



PSM Inventory / Stock Administration

As mentioned earlier, this is one of the Optional Features within PSM. In order to get this Section in the Main Menu, at least one Supplier Group must be set to "Inventory", and you need to have the License for this Feature.



Supplier Name	Email Recipient(s) for Orders	Email Recipient(s) for Statistics		
			Add	
Consumable Partner London	supplyorders@supplier.co.uk		Change	Delete
Consumable Partner Zürich	supplyorders@supplier.ch		Change	Delete
Stock Zurich	Inventory		Change	Delete

The Feature is useful only, if you have your own Stock of Consumables, at least for one Printer Brand. You can mix using this Feature and using Standard Email Orders, as indicated above in the Right Picture. In this Example, Printers who have the Consumable Partner London or Zürich assigned, will order by Email, while Printers who have the Supplier Group "Stock Zürich" will order over the "PSM Inventory" Feature.

Before you start using this Feature, you should go into "Manage Stock/Inventory". The Part Numbers you will find there are the ones, which are in the Printer Profile. If you don't find a Part Number, please check the Printer Profiles.

First step will be to count the Parts you currently have on Stock and fill the Quantity into the appropriate "Current Stock" Field. After that you should define the Minimum Quantity you want to have on Stock, until PSM recommends to Order the Part.

Part Number	Consumable Description	Printer Model	Current Stock	Minimum Stock	Open Orders of Supplier	Open Orders from Customers	
A0SP4100	Toner	NRG SP 4100N	0	0	0	0	Change
DT145CYWHY	Toner Cyan	NRG SP C4200N	0	0	0	0	Change
DT145YLWHY	Toner Gelb	NRG SP C4200N	0	0	0	0	Change
DT145BLWHY	Toner Schwarz	NRG SP C4200N	0	0	0	0	Change
DT145MGTHY	Toner Magenta	NRG SP C4200N	0	0	0	0	Change
DTDB145	Restoner	NRG SP C4200N	0	0	0	0	Change

Printer Orders

Needed Consumables (Parts from Printers below the Threshold for Ordering) will be put into the "Customer Orders / Parts delivery to the Printers" Section. This is done usually once a Day at the same you have defined in the Scheduler for the Email Ordering. Parts needed to be shipped to Customers/Printers are shown like this:

Printer Order Number	Printer Orderdate	Shipping Date	IP Address / Host Name	Printer Name	Contact Person	Location	Serial Number	Printer Model	Part Number	Consumable Description	Print Shipping List	Mark as delivered
100012	01-10-2009	--	10.1	Hidden for Privacy Reasons			0478	xerox 5638 mfp	006R1046	Toner Bottle CRU		

You can Print a Shipping List for every Order, by Clicking on the Printer Icon. After you have packed the Material you can Click on the Truck-Icon, to tell PSM, that the Part is shipped. Once you do that, PSM will Count -1 of from the Stock. If you need to know, which Parts have been shipped already, you can Click on the "Finished Shipments" Button.

Printer Order Number	Printer Orderdate	Shipping Date	IP Address / Host Name	Printer Name	Contact Person	Location	Serial Number	Printer Model	Part Number	Consumable Description	Print Shipping List	Cancellation
100011	01-10-2009	01-10-2009	10.1	Hidden for Privacy Reasons			04	xerox 7345 mfp	006R01178	Yellow Toner [Y] Cartridge		
100010	01-10-2009	01-10-2009	10.1	Hidden for Privacy Reasons			02	xerox 7345 mfp	006R01177	Magenta Toner [M] Cartridge		



The Layout of the Shipping List can be Customized according to the Customer needs. Also you can upload a Logo.

		Left Position in Pixels	Top Position in Pixels	Font Pointsize
Coordinates for the Address		<input type="text" value="490"/>	<input type="text" value="185"/>	<input type="text" value="13"/>
Coordinates for the Title		<input type="text" value="10"/>	<input type="text" value="380"/>	<input type="text" value="24"/>
Sender Address / Coordinates	<input type="text" value="Customer AG"/> <input type="text" value="Examplestreet 1a"/> <input type="text" value="CH-9999 Zurich"/> <input type="text" value="Switzerland"/>	<input type="text" value="10"/>	<input type="text" value="175"/>	<input type="text" value="11"/>
Greeting / Coordinates	<input type="text" value="Kind Regards"/> <input type="text" value="Logistics and Delivery"/>	<input type="text" value="10"/>	<input type="text" value="800"/>	<input type="text" value="13"/>
Logo / Coordinates	<input type="text" value="example.jpg"/>	<input type="text" value="250"/>	<input type="text" value="20"/>	
Logo Hight in Percent	<input type="text" value="50"/>			
Logo width in Percent	<input type="text" value="55"/>			

The Test-Button allows you to see how your Shipping List will look like.

Please Note: The Printing Window is html formatted. Please switch off header and trailer in the Internet Explorer Printing Preferences and use the smallest possible offset.

Order Proposals

Order Proposals are calculated by PSM. If one or more Parts are below the Setting you made for "Minimum Holding" in the Stock Administration, PSM will show them under "Order Proposals".

Part Number	Consumable Description	Printer Model	Current Stock	Minimum holding	Open Orders at Supplier	Open Orders from Customers	Order Proposals
006R01176	Cyan Toner [C] Cartridge	Xerox 7345 MFP ADF	9	10	0	0	<input type="text" value="1"/>
006R01177	Magenta Toner [M] Cartridge	Xerox 7345 MFP ADF	9	10	0	0	<input type="text" value="1"/>

You also see the amount of Parts already Ordered, and Open Orders from Customers on that Screen. That allows you to forecast the amount you guess you will need, and you can change the Order Quality if needed.

Once you Click on "Generate Orders" PSM will generate an Order Summary and allows you to download that as an XLS File or to Print it. Also PSM will write to the Database and stores your Order.

The Order has been booked. Please send the Order to your Supplier asap.

Order Number	Order Date	Part Number	Consumable Description	Printer Model	Order Qty
20090002	08-10-2009	006R01177	Magenta Toner [M] Cartridge	Xerox 7345 MFP ADF	1
20090002	08-10-2009	006R01176	Cyan Toner [C] Cartridge	Xerox 7345 MFP ADF	1

Please Note: You will have to Order at your Supplier yourself!



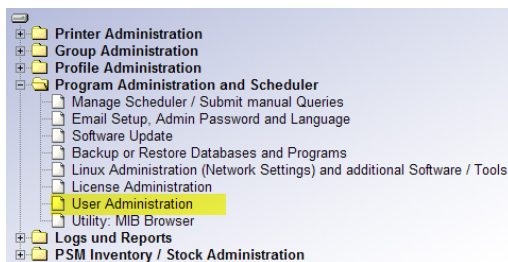
Open Orders / Part receipt

In this Section you will see all Parts you have already ordered already. The Orders are grouped according to the Order Number. If your Supplier sends you the Parts, you can book them to your Stock. The Order will remain open, until all Parts have been Booked.

Order Number	Order Date	Part Number	Consumable Description	Printer Model	Ordered	shipped so far	Open	Receipt Qty	
20090002	08-10-2009	006R01177	Magenta Toner [M] Cartridge	Xerox 7345 MFP ADF	1	0	1	1	<input type="text"/> Book
20090002	08-10-2009	006R01176	Cyan Toner [C] Cartridge	Xerox 7345 MFP ADF	1	0	1	1	<input type="text"/> Book
20090001	30-09-2009	008R13056	Fuser Assembly	Xerox 7346 MFP	2	0	2	2	<input type="text"/> Book
20090001	30-09-2009	113R00724	Magenta-Tonerkart., Phaser 6180	Xerox 6180 MFP	10	0	10	10	<input type="text"/> Book
20090001	30-09-2009	008R12903	Waste Bottle	Xerox 7345 MFP ADF	10	0	10	10	<input type="text"/> Book
20090001	30-09-2009	006R1046	Toner Bottle CRU	Xerox 5638 MFP	10	0	10	10	<input type="text"/> Book
20090001	30-09-2009	008R13028	Fuser Assembly	Xerox 7345 MFP ADF	5	0	5	5	<input type="text"/> Book

Defining Users for PSM

If you want to define additional Users inside PSM, you can do this in the Administration Section.



Super Users have the same Rights as the Admin itself. However Super Users cannot restore PSM and they cannot change any System Settings. Users other than Super Users can be restricted to Certain Areas or Functions inside PSM, and they can be restricted to see only Printers defined in the Groups you want. (The only Exception is the Inventory / Stock Management Section: Group Restrictions will not apply there.

Every User can have a different Language assigned.

Users can change their own Password and Language only.

User Administration

User Name:

	Value
User Name	<input type="text"/>
Password	<input type="text"/>
Menu Language	English
Super User	<input type="checkbox"/>
Printer Admin Rights	<input type="checkbox"/>
Group Admin Rights	<input type="checkbox"/>
Printer Profile Admin Rights	<input type="checkbox"/>
Counter Profile Admin Rights	<input type="checkbox"/>
Error Profile Admin Rights	<input type="checkbox"/>
PSM Inventory	<input type="checkbox"/>
Group 1 Rights	ALL Office London Zurich Headoffice
Group 2 Rights	ALL Color MFPs Color Printers Monochrome MFPs
Supplier Group Rights	ALL Consumable Partner London Consumable Partner Zürich Stock Zurich
Toner Service Group Rights	ALL Printer Service London Printer Service Zürich



Backup and Restore

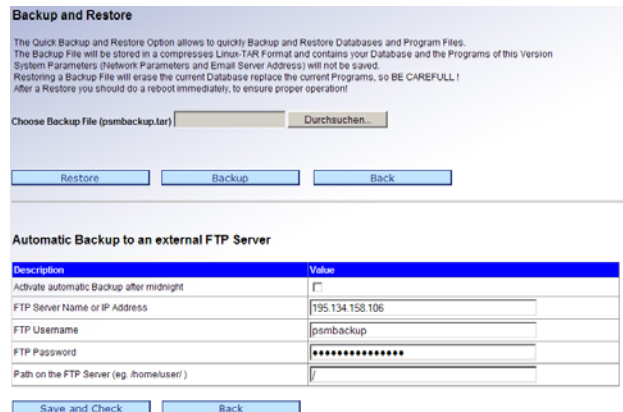
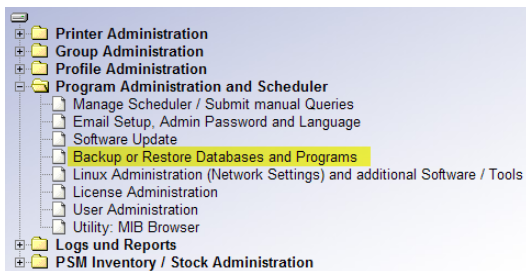
As every System, PSM should be backed up from Time to time. Backups can be executed manually from the Admin Userid or from every User with Super User Rights, while a Restore always requires the Admin Userid. The Size of the Backup File varies depending on how many Printers defined and how big the Log Files are.

Usually a Backup does not exceed 50 MB.

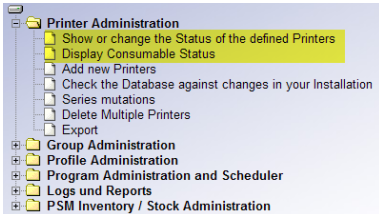
It is possible to have the Backup automated, if you have an FTP Server in your Network. If this is the case, you can specify the FTP Server, Login Account and Path where the Backup should be written. PSM will execute the Backup every Night to the FTP Server in this Case. It will name the File with psmbackup-dd-mm-yyyy.tar where dd mm yy means Day, Month and Year.

Note: If you want to restore a Backup File, the Backup File has to be renamed to "psmbackup.tar".

It is possible to restore a Backup taken from one PSM on another, even if the Version is not the same. However, the System Settings such as IP Address, DNS Server, Email Server and so on will not be restored. Also the License File will not be backed up, so in any case you will need a new License File on another PSM.



Printer Administration



The Printer Administration will show you the Printers defined and their Status. They are two possibilities to see the Status. Both will show you the Status, but the first Choice shows more Information about the Device, while the Second Choice shows more Information about the Consumable Status.

It is up to you which one you choose to work with.

Choice 1: "Show or change the Status of the defined Printers"

If you choose this View, PSM will show you Information about the Printer and about the Toners. You can Sort according your need and you can also use Filters to only see the Devices you want to see. You can also choose to Display Printers with Errors or Warnings first by clicking the Checkbox.

IP Address / Host Name	Printer Name	Contact Person	Location	Serial Number	Printer Model	Page Counter	Last successful Query		
1.2.3.4	CHP99327	Martha Mantaler		124324525	xerox 5638 mfp	111463	02-10-2009 / 07:32		
1.2.3.5	CHP99837	Armin Amstutz		3632124871	xerox 5638 mfp	79553	02-10-2009 / 07:30		
1.2.3.8	CHP973676	Mike Cohan		46764747	xerox 5638 mfp	74253	02-10-2009 / 07:30		

Choice 2: "Display Consumable Status"

This view works the same Way, but it will show you less Information about the Device and more about the Consumable Status. If you move your Mouse over a certain Part, PSM displays you the Part Number and Description. You can also make notes for Parts below one of the Thresholds. This can be for example a Code, indicating that the Part has been delivered to the Printer. PSM will automatically delete the Field, once the Part has been replaced.

IP Address / Host Name	Contact Person	Location	Bemerkungen/Remarks	Printer Model	Page Counter	Last successful Query													
1.2.3.4	Martha Mantaler			xerox 5638 mfp	111463	02-10-2009 / 07:32	75.9%												
1.2.3.5	Armin Amstutz			xerox 5638 mfp	79553	02-10-2009 / 07:30	86%												
1.2.3.8	Mike Cohan			xerox 5638 mfp	74253	02-10-2009 / 07:30	80.9%												

Both Views:

- If the whole Line has a red Background this indicates that this Printer has an Error
- If the whole Line is yellow this indicates that at least one Consumable Part is below threshold (If you use the "Display Consumable Status" View, PSM also indicates, which Part is below threshold. If the "Toner Service" Feature is used, a yellow Part means that the Part is below threshold for Ordering, while a red Part means that the second threshold has been reached and the Part is nearly empty).
- Both views have the following Filtering possibilities:

Group 1 Filter	<input type="text"/>	Group 2 Filter	<input type="text"/>
Toner Service Group	<input type="text"/>	Consumables Supplier	<input type="text"/>
Generic Free Search Filter (eg. *laser*)	<input type="text"/>	<input checked="" type="checkbox"/> Show Printers with Warnings first	<input type="checkbox"/> Show only Printers not reachable today



Printer Details View

If you click on the Lens-Icon, you can get a Detailed Status of the Printer, and you can change all Settings

Printer Name :	
IP Address / Host Name	192.168.200.51
Printer Name	prt053
Contact Person	Peter Bond
Location	Headoffice Zurich, 1th Floor, Office 103
Asset Number	81577
Association Group1	Zurich Headoffice
Association Group2	
Error Notification Group	Helpdesk Zurich
Toner Service Group	
Consumables Supplier	Stock Zurich
Printer Model	hp LaserJet 4350
Profile for the Query of Counters	Hewlett-Packard
Error Routine 1	Hewlett-Packard <small>Notify the following Groups in case of Errors <input checked="" type="checkbox"/> Group1 <input type="checkbox"/> Group2 <input type="checkbox"/> Error Not</small>
Error Routine 2	HP - Errors only <small>Notify the following Groups in case of Errors <input type="checkbox"/> Group1 <input type="checkbox"/> Group2 <input checked="" type="checkbox"/> Error Not</small>
Email Address of Printer Owner	<input type="text"/> <small><input type="checkbox"/> No copies of Consumable Orders <input type="checkbox"/> No Error Notification</small>
Total Pages printed	91765
Serial Number	CNCXF15886
Printer SNMP Read-Community Name	<input type="text"/> <small>use only, if different from the global Read-Community Name</small>
Printer SNMP Write Community Name	<input type="text"/> <small>use only, if different from the global Write-Community Name</small>
Last successful Query	08-10-2009 / 20:16
Overall Printer-History	
<input type="button" value="Save / Refresh"/> <input type="button" value="Back to Printer Overview"/>	

The first Section shows you the current Settings of the Printer You can change the Group assignments, and every other setting here, if you have Admin, Super User or Printer Admin Rights.

Clicking on the Lens will give you a full History of the Printer

Consumables ordered so far

Part Number	Consumable Description	Quantity	Last remaining	Date of last replacement	Page Count at last Replacement	Average replaced at	Consumables History
Q5942X	Black Cartridge HP Q5942X	<input type="text"/>	n/a	n/a	n/a	0 %	
Q5422A	Maintenance Kit HP 110V-Q5421A, 220V-Q54	<input type="text"/>	n/a	n/a	n/a	0 %	
Consumables History							
<input type="button" value="Change"/> <input type="button" value="Refresh Status"/> <input type="button" value="Back to Printer Overview"/>							

This Section shows you how many Parts have been ordered so far. By clicking on the Lens you can get Details about every Part.

Consumable Status Report

Part Number	Consumable Description	Threshold Value (%) (for Orders)	Part below Threshold? (for Orders)	Order sent Date	Remaining Capacity	Remaining Capacity (%)	Maximum Capacity
Q5942X	Black Cartridge HP Q5942X	30	N		5200	26 %	20000
Q5422A	Maintenance Kit HP 110V-Q5421A, 220V-Q54	20	N		199182	88.5 %	225000
<input type="button" value="Refresh Status"/> <input type="button" value="Back to Printer Overview"/>							

This Section show you the current Consumable Status

Status on printer, detected during last Query (Error Routine 1)

Error detected	Error message sent	Error Messages (Messages regarding Consumable orders can be ignored)
N		No Error detected

Status on printer, detected during last Query (Error Routine 2)

Error detected	Error message sent	Error Messages (Messages regarding Consumable orders can be ignored)
N		

If there is a Printer Error detected by one of the two assignable Profiles, it will be displayed here

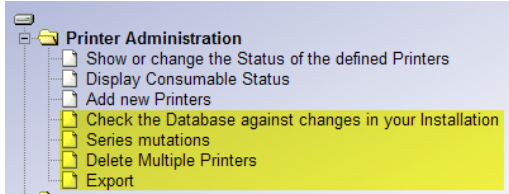
Page Counter Statistic

Description	Pages
Total Printed Pages	91765
Total Pages in Color	0
A4 Simplex Pages Monochrome	78269
A4 Simplex Pages Color	0

The last Section shows the current Page Counters of the Device, if you have assigned a valid Counter Profile



Other Printer Administration Features



There are several other possibilities to manage the Printers defined in the Database, such as Series Mutation, Deletion, and Export.

Check the Database against changes in your Installation

This Feature allows you to check, if the Printers defined inside PSM are really the ones you think they are. It helps to find out, if Printers have been changed without your knowledge. It is always a good Idea to run this Function from Time to Time. If you call this Function you can choose between the following Options:

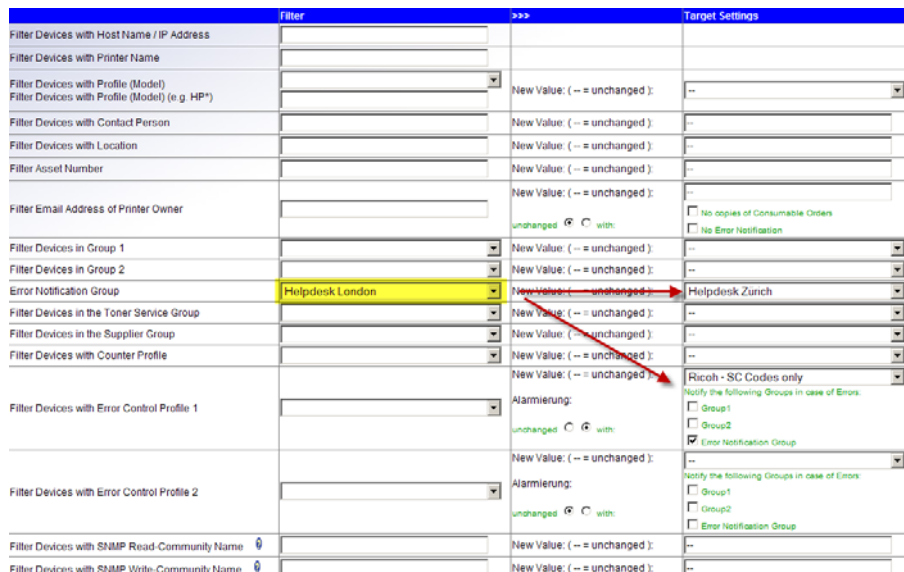
Notify about changed Printer Descriptions/Names	<input type="checkbox"/>
Notify about changed Contact Persons	<input type="checkbox"/>
Notify about changed Locations	<input type="checkbox"/>
Notify about changes of the Printer Model	<input type="checkbox"/>
Detect changes of an IP that is resolved by DNS	<input type="checkbox"/>

There are several things you can check. Regardless of what you choose: PSM will always scan for changed Serial-numbers. What we recommend is to choose to Scan for changes of the Printer Model! If you run that Scan PSM will show you the Printer which do not match your Database.

Series Mutations

This Function allows you to do changes such as changing Group Assignments, assign Error Profiles and similar things. The Left Side of the Screen allows you which Devices you want to change, while the Right Side allows you to tell PSM what should be changed.

The following Example would find all Devices assigned to the Error Group “Helpdesk London” and assign them to “Helpdesk Zürich”. Additionally it would set the Error Profile and the Error Notification Group.



Also this Function will show the Results in a Table. You can decide to exclude some Devices from the change, or to cancel. Only if you later Click on “Save” the changes will be saved.



Delete / Export Printers

	Filter
Filter Devices with Host Name / IP Address	
Filter Devices with Printer Name	
Filter Devices with Profile (Model)	HP Color LaserJet 2040
Filter Devices with Profile (Model) (e.g. HP*)	
Filter Devices with Contact Person	
Filter Devices with Location	
Filter Asset Number	
Filter Email Address of Printer Owner	
Filter Devices in Group 1	
Filter Devices in Group 2	
Error Notification Group	
Filter Devices in the Toner Service Group	
Filter Devices in the Supplier Group	
Filter Devices with Counter Profile	
Filter Devices with Error Control Profile 1	
Filter Devices with Error Control Profile 2	
Filter Devices with SNMP Read-Community Name	
Filter Devices with SNMP Write-Community Name	

This function will show you the same Screen as if you would choose the Series Mutation, but only the left Part of it. It will allow you to Filter which Devices you want to Delete or Export.

If you choose to delete, you will get a List first, and you have to confirm the Deletion.



Q&A – PSM Tips and Tricks

The License does not work – what’s wrong?

PSMs Licensing System is based upon the Date. License Files are Time-Stamped and are only valid from a specific Date until a specific Date. If a License File does not work, the System Date might be wrong. Please check on the Admin Section and set the Date correctly. We also recommend specifying a Time Server. Usually Customers have a Windows Domain Controller, where the NTP (Time Service) is running. If this is the case, we recommend specifying the Time Server IP Address to be used.

PSM is acting Slow on some Screens, such as “Add Printers” – Why?

PSM tries to find out the PC’s IP Hostname. This Function goes over DNS. If your DNS Server is not responding or if you did not specify a DNS Server to be used by PSM, things will go slow, because there is a Timeout. We highly recommend specifying a valid DNS Server in the System Setup of PSM.

I’ve lost access to PSM / I don’t know PSMs current IP Address – what can I do?

PSM VMWare (Ubuntu-Linux)

Logon to PSM over the VMWare Console with root / IdApS98 .

Check the IP Address with the command: **ifconfig br0**

```
br0      Link encap:Ethernet  HWaddr 00:30:48:5A:BF:46
         inet  addr:10.5.123.2  Bcast:10.5.123.63  Mask:255.255.255.192
         inet6 addr: fe80::230:48ff:fe5a:bf46/64 Scope:Link
         UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
         RX packets:728204 errors:0 dropped:0 overruns:0 frame:0
         TX packets:1097451 errors:0 dropped:0 overruns:0 carrier:0
         collisions:0 txqueuelen:1000
         RX bytes:62774749 (59.8 MiB)  TX bytes:1584343634 (1.4 GiB)
         Interrupt:177
```

To set a temporary IP Address within your Network (so you can access PSM again over the Browser, enter the command :

ifconfig br0 192.168.1.5 netmask 255.255.255.0 up

(Where 192.168.1.6 and 255.255.255.0 should be replaced with the IP and Subnet Mask you need)

Once you have access over the Browser again, you should use the Link in the Administration Section to make the changes permanent.

Note: If the “ifconfig br0” command does not display anything, please use the command “shutdown –r now”. This will reboot PSM and scan for the correct Network Adapters.

PSM Lite (Black)

The Procedure is exactly the same as above; however, to access the Console you will need a Null-Modem Serial Cable and a Terminal Emulation such as putty. Use Baudrate 38400,n,8,1 to access PSM.



PSM Lite (Yellow)

Connect a VGA Display and a Keyboard directly to PSM. The connectors are located at the Back. Press "Enter" one Time. This will give you the following Screen:

```
Current Network Settings:
=====
Current IP Address : 192.168.200.29
Subnet Mask       : 255.255.255.0
Default Gateway   : 192.168.200.11
=====
The following command are valid (Examples):
=====
ip 192.168.200.199 - to change the IP Address to 192.168.200.199
sn 255.255.255.0   - to change the Subnet Mask to 255.255.255.0
gw 192.168.200.11 - to change the default gateway to 192.168.200.11
shutdown          - to shutdown the system
reboot            - to reboot the system
NOTE:
All changes made here are temporary! Connect to http://192.168.200.29 ,login
and change the IP Address permanently over the Administration Menu.
```

You can use the Commands as indicated on the Screen to change the temporary Settings.

Once you have access over the Browser again, you should use the Link in the Administration Section to make the changes permanent.

PSM VMWare (SuSE Linux) and PSM Rack Appliance

If you have a Rack-Appliance, please connect a VGA Display and a Keyboard. If you have the VMWare Variant (SuSE Linux), please connect to the VMWare Console. Logon with root / ldApS98

Enter the Command: **ifconfig**

This will show you the active Ethernet Interfaces with the current IP Address

```
eth3      Link encap:Ethernet  HWaddr 00:30:48:5A:BF:46
          inet addr:10.5.123.2  Bcast:10.5.123.63  Mask:255.255.255.192
          inet6 addr: fe80::230:48ff:fe5a:bf46/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:728204 errors:0 dropped:0 overruns:0 frame:0
          TX packets:1097451 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:62774749 (59.8 MiB)  TX bytes:1584343634 (1.4 GiB)
          Interrupt:177
```

To set a temporary IP Address within your Network (so you can access PSM again over the Browser, enter the command :

ifconfig eth3 192.168.1.5 netmask 255.255.255.0 up

(Where 192.168.1.6 and 255.255.255.0 should be replaced with the IP and Subnet Mask you need)

Once you have access over the Browser again, you should use the Link in the Administration Section to make the changes permanent.

Note: the "ethX" Number might be different in your installation. Use the ethX Number which was displayed with "ifconfig".

Attention: In some cases there will be no "ethX" Entry displayed when you Enter the Command "ifconfig". This indicates, that the Ethernet Adapter has changed. In this case use the command "yast" and proceed to the Configuration of Network Interfaces. (Use the Procedure as described in the PSM Quick Installation Guide for VMWare SuSE Linux).



PSM does not detect some Parts (such as Staples)

Some Printers don't report all Parts by SNMP MIBs. Especially special Parts like Staples or Fuser Oil are not reported. If the Printer reports an Error Message for such Parts, there is a possibility using the Message.

Please be aware, that we cannot take any Warranty for this Feature to work properly, since it is not always sure, that the Error Message constantly appears, until the Part has been replaced. If it for example disappears, because there is a more serious Error, and re-appears, if the Error has been fixed, it could result in a double Order. Therefore it is important, that you set the Value for "Pages between Orders" high enough, to prevent double Orders. The Value for "Pages between Orders" should be set aprox 50% of the Capacity of the Part with the smallest Capacity.

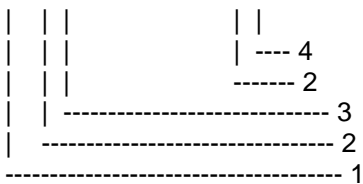
Example: If you have Toner, which should make 10000 Pages, and all other Parts (Developer=50000 Pages for Example), then you should set the Value for "Pages between Orders" to 5000 .

Requirement: You need to know the Error Message/Code for the Part, which should be triggered.

To use the Feature, insert a new Line in the Printer Profile.

- Enter the related Part Number
- Enter the Part Description
- use 20 / 5 / 100 as Threshold values and Maximum Capacity.
- in the Printer MIB Field Enter the following

```
ERROR%1.3.6.1.2.1.43.18.1.1.8.1%40440
```



1 = ERROR (PSM knows that you are using the ERROR Feature)

2 = % used as separator

3 = The Printer MIB for the Error Message Display (Ricoh MIB used in this Example)

4 = Error Code Number, for which PSM will search in the Error Message Text. (Staples in the above Example)

(Could be up to 3 different Error Numbers, separated by %)

Example for detecting Fuser Oil Unit on a NRG DSc 332, detected by Error Number 40261, 30408 or 10074 :

```
ERROR%1.3.6.1.2.1.43.18.1.1.8.1%40261%30408%10074
```

Example for an un-detected Waste Toner bottle on a NRG DSc 332, detected by Error Number 10032:

```
ERROR%1.3.6.1.2.1.43.18.1.1.8.1%10032
```

Example Screenshot

Part Number	Consumable Description	Value (%) (for Orders)	Value (%) (Toner/service)	Maximum Capacity	Printer MIB to retrieve the remaining Pages
DT338BLK	Black Toner	20	5	100	1.3.6.1.4.1.367.3.2.1.2.241.1.5.1
DT338CYN	Cyan Toner	20	5	100	1.3.6.1.4.1.367.3.2.1.2.241.1.5.2
DT338MGT	Magenta Toner	20	5	100	1.3.6.1.4.1.367.3.2.1.2.241.1.5.3
DT338YLW	Yellow Toner	20	5	100	1.3.6.1.4.1.367.3.2.1.2.241.1.5.4
TDB38	Waste Toner	20	5	100	ERROR%1.3.6.1.2.1.43.18.1.1.8.1%10032
DMK2238P	Fuser oil Unit	20	5	100	ERROR%1.3.6.1.2.1.43.18.1.1.8.1%40261%30408%10074



I have Negative Numbers in the Reports for Consumables used or Page Counters – Why?

Negative Numbers in Consumable Reports could have happen, if the Printer has been added within the Query Timeframe of the Report. This is fixed in Version 5.04 and above.

Negative Numbers in Page Counter Reports could have happen, if somebody has exchanged the Printer or some technical Parts in the Printer. If the old Counter values are not set in the replaced or repaired Printer, it would start Counting from Zero. If a Query Timeframe is within that Time, of course this would give negative Numbers. In Version 5.04 we have implemented a Program to detect such a Situation and handle it. However, if this would have happened more than once within a Query Timeframe, you still would get negative Numbers.

In any Case: Please advice the technicians, that they should configure the correct Page Counters again after the repair.

I want to take Printers out of the Network, and use them again later at another Place. What should I do to not loose the History of that Printer?

You can rename the Printer and prefix the IP Address/Hostname Field with one of the following:

- Stock_printername
- Lager_printername
- Entsorgt_printername
- Disposed_printername
- éliminés_printername

If you rename a Printer with one of the above Prefixes, PSM will treat these Printers as “inactive” and will no longer Query them. The History will be kept. If you place the Printer somewhere else later, you can rename it again to the correct IP Address/Hostname and PSM will start Query again.

Is it possible to configure the Printer from within PSM?

No. PSM is no Management Application. The Configuration of Printers is too much dependent on every single Printer Model. It would be a lifetime Job just maintaining it! You should use the Manufacturer Tools to Configure Printers.

However you have the possibility to configure the Host Name, Contact Person and Location from PSM. If you enter the SNMP Write Community in the Admin Section or at Printer Level, PSM tries to write back the above mentioned Fields to the Printer. There will be no guarantee that it works, but it does in most of the cases.

Anyway: PSM will be slower, especially with Series Mutation, since SNMP Write Commands to the Printers are often slow.

There is however one Practical use. If you did not configure Printer Name, Contact Person and Location inside the Printers, but you did it in PSM, you can put in the SNMP Write Community Name in the Admin Section, do a Series Mutation (without changing anything) and store the Resulting List. This will write back the configured Values to the Printers. Once you done it, you can remove the Write Community again.



I want to Enter the full delivery Address of a Printer inside PSM. How do I make a New Line?

Since Version 5 of PSM there is a Full-Text Field when you go over the Printer Administration and display the detail Status of a Printer (by clicking on the "Lens").

The screenshot shows a form with the following fields:
- IP address: 192.168.200.51
- Printer ID: prt053
- Name: Peter Bond
- Location: Headoffice Zurich, 1th Floor, Office 103
- Status: 81577
- Location dropdown: Zürich Headoffice
- Another dropdown: Helndesk Zürich

The Location Field can be used to write a Text Block. This is especially useful, if you are using the PSM Inventory Feature, for printing the Shipment List. Just press enter to get a new Line.

If you want to Import Printers, you will have to use html Coding to create a Line-Break. The Code is: `
`

To get the Textblock in this example you would use:
Headoffice Zurich
1th Floor
Office 103

PSM will also use the new Lines in the Printer Administration:

192.168.200.51	Peter Bond	Headoffice Zurich, 1th Floor, Office 103		hp laserjet 4350	91772	09-10-2009 / 13:10	26%		88.5%
----------------	------------	--	--	------------------	-------	-----------------------	-----	--	-------

Please Note, that this will not be used with Email Orders. PSM will replace the New Line with a Comma! This is because of compatibility Reasons to previous Version.

I don't find the Information about the MIB's to create a Counter Profile. What can I do?

Some Manufacturers don't want to make their MIB's available to the Public, for whatever Reason, and not all Devices have MIB's for the Counters other than the Engine Counter.

- There is a Trick to find the correct MIB, if you don't have the Manufacturers Information.
 - **Step 1:**
 - o Connect to the Device with a Webbrowser (Or print a Settings Page on the Device)
 - o Note all Counters you can find over the Webbrowser or on the Test Page
 - o Use a MIB Browser (there is one inside PSM in the Admin Section, however this does not work for all Devices. If it is not working for your Device use one of the freely available MIB Browsers on the Internet, such as the one from www.ireasoning.com .
 - o Do a MIB Walk on the Device.
 - **Step 2:**
 - o Search the Counter values you have over the Webbrowser within the MIB Walk Results
 - o To be sure you found the Correct Location inside the MIB Tree, we recommend repeating Step 1 at least one Time again.
 - **Step 3:**
 - o Write the MIB Value into a new Profile

If you don't find the values in the MIB Tree you can be sure, that the Device doesn't support any Page Counter Queries by SNMP.

On the following Page we show you an Example.



Example the find out the MIB's for a Lexmark X544 Printer

We did a Settings Printout on the Devices. It shows the following Counter Information on the Paper:

```
64 Mo de mémoire
Impression statistiques
Nb pages imprimées :
  Mono          5841
  Couleur       24939
  Total         30780
```

Next we did a MIB Scan using PSMs internal MIB Browser and we were searching for this 3 Counter values. We found it:

SNMP OID	Value Returned
.1.3.6.1.4.1.641.2.1.5.1.0	30780
.1.3.6.1.4.1.641.2.1.5.2.0	5841
.1.3.6.1.4.1.641.2.1.5.3.0	24939
.1.3.6.1.4.1.641.2.1.5.7.0	0
.1.3.6.1.4.1.641.2.1.5.8.0	1
.1.3.6.1.4.1.641.2.1.5.9.0	0
.1.3.6.1.4.1.641.2.1.5.10.0	0
.1.3.6.1.4.1.641.2.1.5.11.0	3
.1.3.6.1.4.1.641.2.1.5.12.0	0
.1.3.6.1.4.1.641.2.1.5.13.0	4
.1.3.6.1.4.1.641.2.1.8.0	MHY1
.1.3.6.1.4.1.2699.1.2.1.1.1.0	fr
.1.3.6.1.4.1.2699.1.2.1.1.2.0	1
.1.3.6.1.4.1.2699.1.2.1.1.3.0	3
.1.3.6.1.4.1.2699.1.2.1.2.1.1.2.1	Lexmark X544
	International;COMMAND SET:PCL 6 Emulation, PostScript Level 3 Emulation, HPGL/II, MODE...

The Total Page Counter was found at MIB:
1.3.6.1.4.1.641.2.1.5.1.0

The Color Page Counter was found at MIB:
1.3.6.1.4.1.641.2.1.5.3.0

The Mono Page Counter was found at MIB:
1.3.6.1.4.1.641.2.1.5.2.0

Profile Name	Lexmark X-544
System Total	.1.3.6.1.4.1.641.2.1.5.1.0
Color Total	.1.3.6.1.4.1.641.2.1.5.3.0
Printing Total	
Printing Color	
Printing Monochrome	
Printing Half Color	
Copy Total	
Copy Color	
Copy Monochrome	
Copy Half Color	
Fax Total	
Fax Monochrome	
Fax 2 Color	
Black and White Total	.1.3.6.1.4.1.641.2.1.5.2.0

With these MIB Values we have created the Printer Profile. So as you can see it is not so complicated, and you will not even need the Help from a Manufacturer to do this.

I need a special Feature – how can I get it?

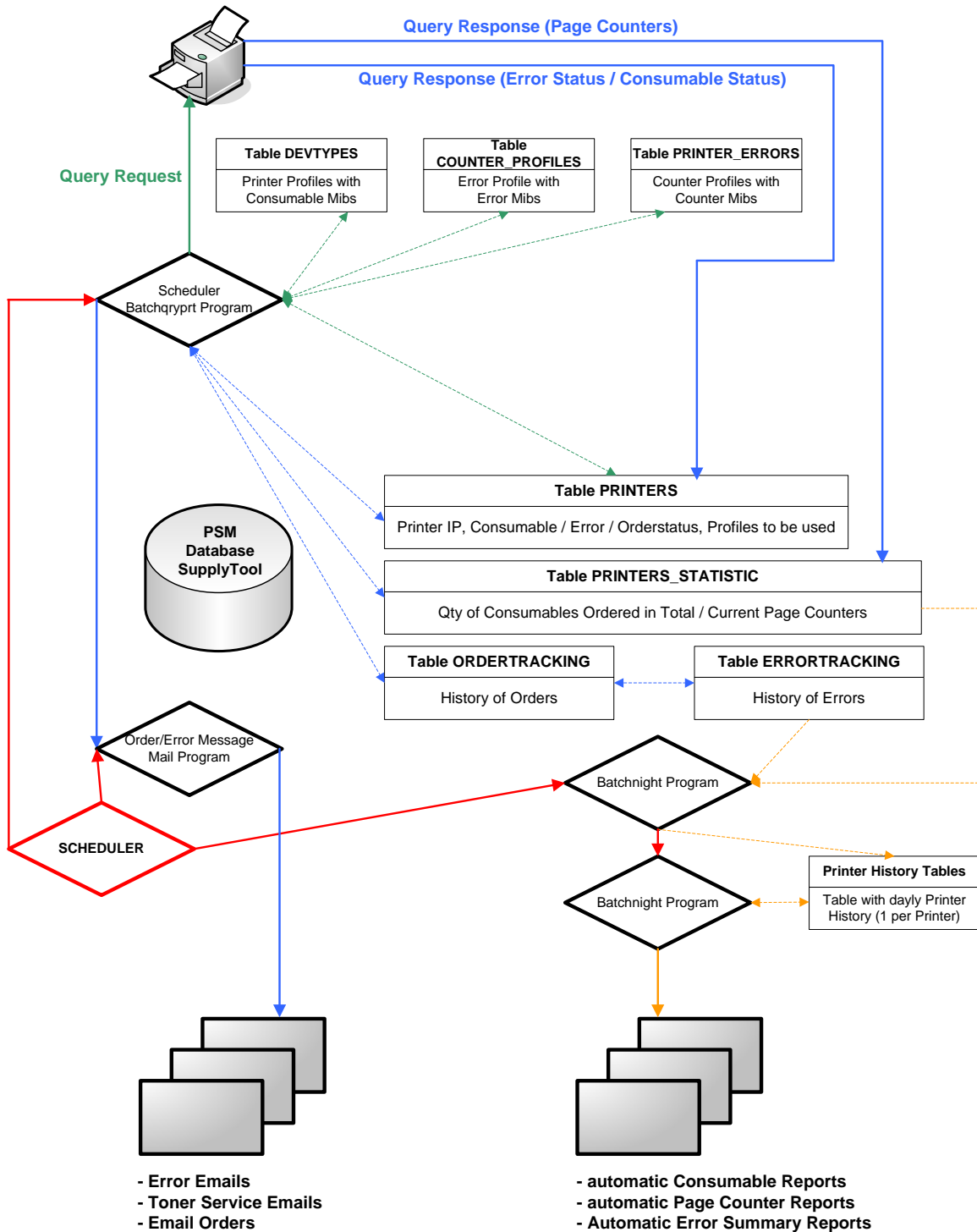
There are Several Functions inside PSM which have been made upon Customer Requests. Not everything is possible. Please send your request to support@sysprint.ch and state your wish. We will check if your request is possible to fulfill and what the Programming Costs would be.

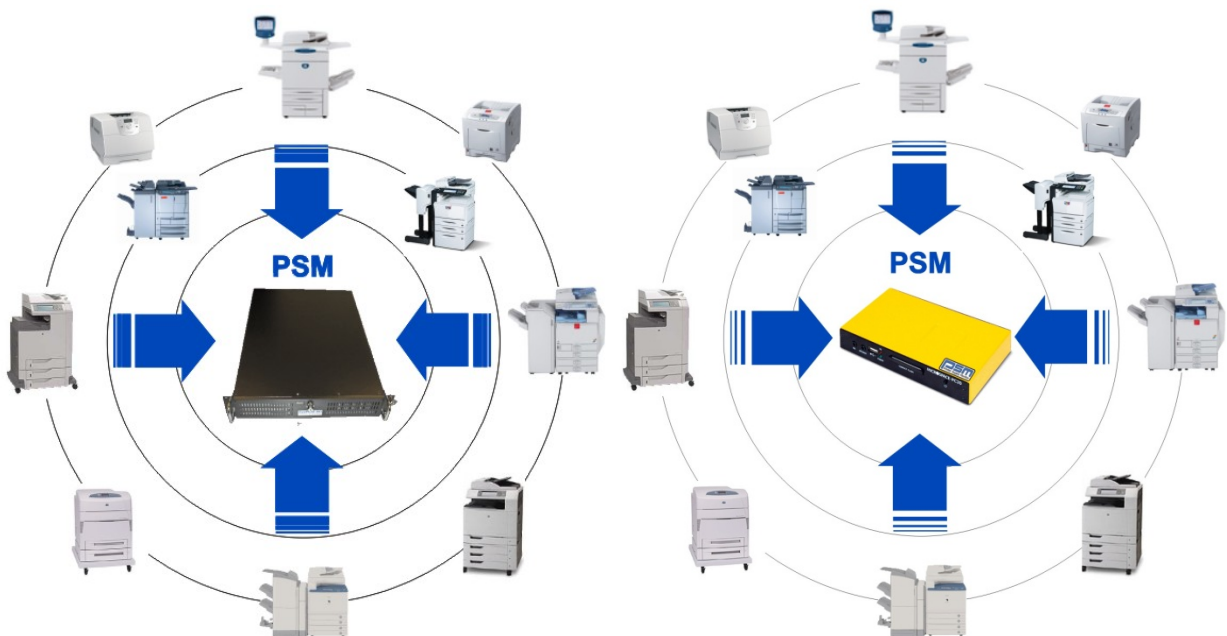
If it is something we consider as useful also for other Customers, we usually bill only half of the Programming Expenses to the Requester. Some Functions were also created free of Charge, since they made sense to be basic Parts of PSM.



PSM Dataflow

PSM DATAFLOW DIAGRAM





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