

PrintSuperVision 4.0

Enterprise and Professional Editions

Installation, Configuration and Users Guide

V. 1.0 1 January 2014

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Introduction

PrintSuperVision (referred to as PSV throughout this document) is a Windows server application designed for managing and monitoring printing and copying devices. The core application is server–based and is accessible from any browser enabled device connected to a network. Popular browsers supported include Internet Explorer, Firefox, Chrome and Safari.

The application is available in two editions: Professional Edition and Enterprise Edition.

The Professional Edition is a subset of the Enterprise edition and shares the same menu structure and many of the same features. Notations will be made throughout this document to indicate differences between the Enterprise and Professional Editions.

One notable feature in the Professional Edition that does not exist in the Enterprise Edition is the Single-user "Easy Configuration" option. The Single-user option can be installed in a non-server configuration on network-connected laptops and desktops.

The Single-user Easy Configuration option allows users to check status of supply levels, monitor consumable life remaining and collect printed page counts while providing the ability to order supplies on line. The easy configuration option is designed for very small offices and does not support the automatic delivery of device Alerts through email.

Some of the common features of both PSV Professional and PSV Enterprise Editions include:

- Discovers and configures devices
- Helps pinpoint devices on the network
- Assists in remote trouble shooting
- Automatically identifies device status and emails alerts
- Produces reports and automatically delivers them via email
- On-line supplies and consumable ordering (configurable by region)
- Manage devices including detailed job accounting reports
- Monitor locally connected OKI devices with PSV Agent, PSV Assistant

What's New in Version 4.0

Perhaps the most important enhancement in version 4.0 Enterprise Edition is the accounting features that help manage Oki devices. When configured, this feature collects detailed user and device job accounting data and provides reports. Using this feature, print quotas can be set for users and enforced on the device. Users can now be managed by synchronizing the list of users with Active Directory.

Several other noteworthy enhancements have been made to both PSV Pro and PSV Enterprise Editions in version 4.0 and include:

- Windows 8 and Windows Server 2012 support added
- Support for SQL Server 2008 Express R2 and SQL Server 2012 Express has been added, allowing up to 10 GB of database storage.
- "Device Job Logs" enhanced to show print job data for selected devices
- Enhanced the file download feature to support remote firmware installation in Enterprise Edition
- "Configure Print Devices" feature in Enterprise Edition allows remote configuration
 of a fleet of similar printing devices. The desired printer properties can be
 configured in a CSV file and imported to PSV and the changes applied to the devices.
- "Configure MFP Devices" feature in Enterprise Edition allows automation of scan profiles, scan templates for select OKI printing devices
- "Low Supplies Report" helps in replenishing the consumables of devices that are running low
- "Printing Report" in Enterprise Edition provides the number of color and mono pages printed, and shows daily/monthly usage
- Supplies Forecast Report added to provide a summary of projected consumables replenishment within 90 days
- SNMP Community Name supported for discovering devices. SNMP delay option is added to allow discovering all devices in a slow network.
- Enhancements to the User Interface to support better access from iPhone, iPad browsers – changes made for easier navigation in those devices

Installing the Software

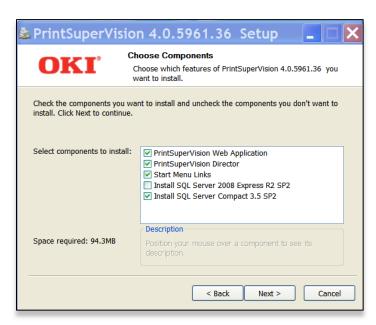
PSV Professional and Enterprise Editions are available from www.okidata.com/printsupervision-downloads-and-faq.

Both Enterprise and Professional editions downloaded from the web include the PSV Server application. PSV Enterprise also includes the PSV Director application described later. The PSV Agent and PSV Assistant applications are available as separate downloads from the web and operates only with PSV Enterprise.

During installation, PSV checks the target server to see if .NET 2.0 (or above) is installed. If the .NET platform is not detected, PSV will link the user to the Microsoft website to download and install the .NET software. PSV also provides the option to download and install Microsoft's free versions of SQL databases such as the Express Edition and Compact Edition.

To install PrintSuperVision, locate the executable file that was downloaded from the Oki website, and click on it. A standard licensing agreement is displayed. If you agree with the license agreement, click **Next**.

Both editions allow you to select the desired components to install. The following dialog box displays the options that can be installed in the Enterprise Edition. Fewer choices are available from the same dialog box when installing the Professional edition.



An application called PSV Director can be installed along with the core server (web) application and other options. PSV Director provides Windows domain administrators the ability to remotely install, upgrade, uninstall, monitor, and configure the PSV Agent (which is a separate download).

The Director can also collect information about printer queues, drivers, and ports on either a single computer or all computers in a domain. PSV Director will be discussed in more

detail in the **Monitoring Locally Connected Devices** section. Click the PSV Director check box if you wish to install that module.

Note: When PSV Director is installed, you can find it later by clicking **Start /All Programs /PrintSuperVision**. It is not accessible from the setup wizard discussed in the following section.

You also have the option to install free versions of SQL Express or SQL Compact Editions which PSV uses to collect device information and subsequently to run reports.

If you do not install SQL Express or SQL Compact edition you will still be able to use PSV's built-in Microsoft Access database but it is limited in storage capacity, so if you are monitoring a large fleet we suggest using SQL Compact, SQL Express or a purchased version of SQL.

Setup and Configuration: Using the Setup Tool

Immediately following installation, the PSV setup tool (wizard) is launched. Follow the step by step process to configure PrintSuperVision. Keep in mind that many of the configuration options are also available from within the PSV server application so it is not imperative to complete all configuration settings during the initial setup process.

You may also return to the PSV Setup Tool at any time. It is available from the Windows Start menu by clicking **All Programs / PrintSuperVision / PrintSuperVision Setup**.

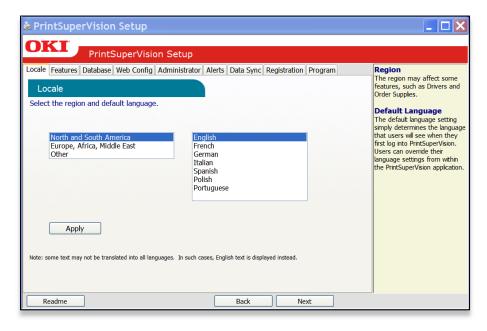
Note: Certain changes using the PSV setup tool can only be made when the web application and PSV Engine services are not running. For example, in order to change the web server component from "embedded" to "IIS", the web service application must **not** be running.

Selecting a Location/Language

The PSV setup tool launches directly into the Locale tab and displays the Region/ Language selection screen first.

- 1. Select a default region / language for all users
- 2. Click Apply and Next

Each user can later change his/her language preference directly from the application. Use caution however when selecting the desired language since it is changed as soon as the user clicks "Apply".

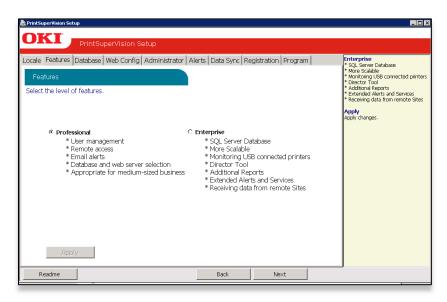


Note: The region/language selected effects enabling or disabling the On-Line supplies ordering feature in PSV. Selecting "North and South America" region will enable the On-Line ordering feature. Selecting any other region disables the ability to order supplies online from links that appear within the application.

Selecting a PSV Edition: Features Tab

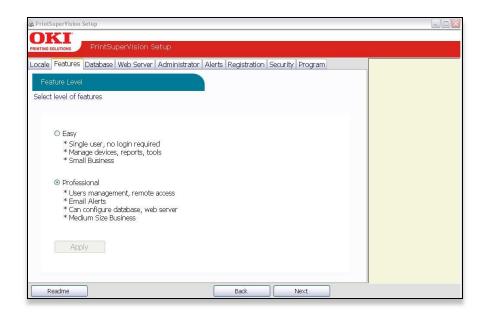
After choosing a language and clicking **Next** you will be prompted to select the PSV edition that you would like to use.

If you installed the Enterprise Edition you are offered the choice to install either the Enterprise or Professional Edition (but not the single-user Easy edition).



Select the desired PSV configuration, Click **Apply** and **Next**.

If you installed the Professional edition you have the choice of selecting the Single-user "Easy" edition or the standard server-based Professional edition. Select the appropriate configuration and click **Apply** and then **Next**.

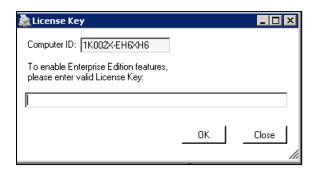


Entering a Software License Key: Enterprise Edition Only

If you selected the Enterprise Edition you will be prompted to enter a valid license key.

Keys can be requested from Oki Data Customer Support via email at psvlicensekey@okidata.com or by calling 800-okidata.

Enter a valid license key and Click **OK**

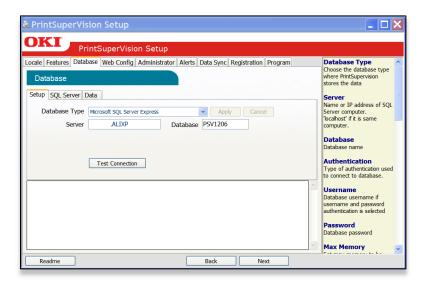


Selecting a Database: Database Tab

The next step is to select the type of database you would like to use with PrintSupervision. As mentioned previously, both editions of PrintSuperVision utilize a built-in Microsoft Access database, but you may choose other options as well.

If you do not wish to use the built-in Access database, PSV allows you to select SQL Compact Edition (in the Pro edition) as well as SQL Server Express in the Enterprise edition. Both versions of SQL were provided as optional choices when installing PSV Enterprise.

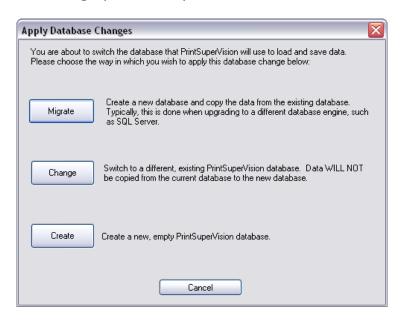
While in the **Database** tab, Click the **Setup** tab and select the desired database from the dropdown menu.



Note: The previous Screen shot is from PSV Enterprise. PSV Professional does not provide the option to enter a name for the server or database.

Also note that the SQL Server Tab is dynamic and will only appear if you have a full version or express version of SQL server installed on the server/computer.

Click **Apply**, and the following options are presented:



Please note that even if you already have a compatible database such as SQL Compact Edition installed on your server, you still must complete the following steps to "create" it so that PSV knows where to save data.

Click one of the following options:

Migrate: Migrates your current database to a new one

• **Change**: Switches to an existing database

• **Create**: Creates a new database

For new PSV Installations click **Create** which creates a new (empty) database.

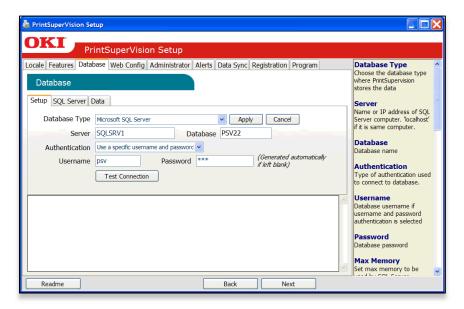
To switch to an existing database without saving any previous data click **Change**.

To create a new database and copy existing data to the new database click **Migrate**.

Click **Start** to process the database selection and click **OK** when the operation is complete.

To restore PSV database generated by another instance of PSV, use the Restore option if the database is SQL Express. If the requirement is to switch to a SQL server from SQL Express – when the database size exceeds the SQL Express limit – the following steps are recommended:

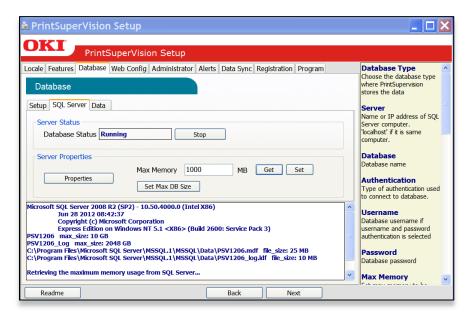
- Copy the SQL database to the SQL server
- Ensure that SQL authentication is used and not Windows authentication if the database is located in another computer
- Run PSV Setup utility, and in the database tab, enter the name of the SQL server and the database name
- Click Apply to save the changes
- The pop up screen with the 3 options Create, Change, Migrate will appear. Select Change.
- Note that if SQL server is used, to backup and restore the PSV database, use the SQL management tools such as SQL Server Management Studio.



Notice in the Enterprise Edition (not available in Pro) that you may also test the connection to the server and enter a new name for the server if you selected SQL Server Express or another SQL database such SQL 2000, 2005, 2008, 2012 that have already been installed on the server.

Assigning server memory limits to SQL server: Database Tab:

If the server you are installing PSV on already has a full version (or express version) of SQL installed, the SQL Server tab will appear in the Database section.



This tab allows you to assign a maximum amount of memory that SQL can use and may prevent SQL from consuming a significant part of your server's memory.

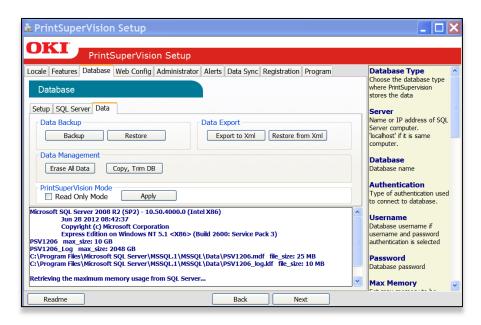
To check the amount of memory (RAM) that SQL is currently using, click the **Get** button. A numeric value will be displayed. To allocate a larger or smaller amount of RAM to the database application, type in an amount (in megabytes) in the **Max Memory** field and click the **Set** button.

You may also click the **Properties** button to see the accumulated size of your database files.

Note: The SQL Server tab is not available in the PSV Pro edition

Database Housekeeping Features: Database Tab:

While in the database section, you may also click the **Data Tab** for several other database "housekeeping" options such as backing up and restoring a database, exporting data, erasing, copying, and trimming data from an existing database.



A noteworthy feature in the **Data** section is the **Read Only Mode**.

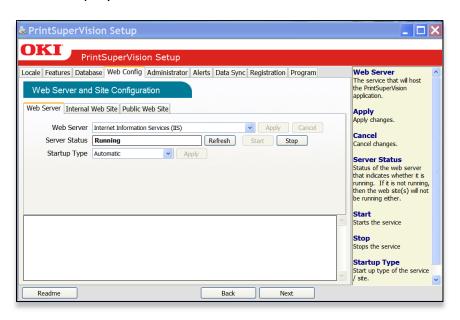
By checking the **Read Only Mode** box it prevents PSV from discovering devices. This is particularly useful when a device database has been imported for diagnostic purposes and you do not want PSV to discover those devices. But use caution and do not check the Read Only Mode box for normal operation.

Perform the desired functions and click **Next** to move to the next setup module.

Selecting a Web Server: Web Config Tab

PSV supports both Microsoft IIS web server and/or an Embedded Web Server that is packaged with the PSV application. It is strongly recommended to use IIS if you will be monitoring large networks with hundreds or thousands of devices. The embedded server provides the same functionality as IIS but performance can be affected when using it in large network installations.

If IIS is not installed on the target server/computer, it will not be visible in the Web Server drop down box displayed below.



Select the desired web server from the drop down box and click **Apply**.

The server status box indicates whether the service is running, you also have the ability to start it or stop it. Additionally there is an option to select how the web server should start: automatically, manually or disabled. Make the desired settings and click **Apply**.

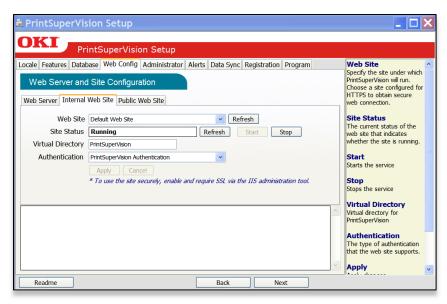
Configuring an Internal Web Site: Web Config Tab

PSV provides an option to select a pre-defined web site rather than using the default web site. When multiple web sites are created and configured in IIS, the website names will appear in the website selection drop down box. Select the appropriate web site or use the default if no web sites have been previously configured.

PSV also provides the option to use a unique **virtual directory** name or use the default name, which is configured as "PrintSuperVision".

The **Authentication** option eliminates the need for an Admin to log in to PSV if they have previously been authenticated on their domain. Select **Windows Integrated Authentication** to take advantage of this time saving feature.

To require Admin log-in every time, keep the default setting which is **PrintSupervision**Authentication.



Click **Apply** to save changes.

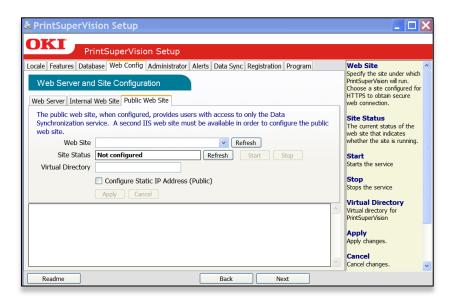
Configuring a Public Web Site: Web Config Tab

The Public Web Site tab is only supported in PSV Enterprise edition and will appear only if IIS is selected as the web server.

The Public Web Site feature allows you to create an intranet or internet site that can receive data from multiple PSV server sites or from multiple PSV Agents. This can be particularly helpful in retrieving device page counts and other supply status information from one designated site rather than requiring users to access multiple PSV server sites.

An additional feature in PSV v4.0 allows you to change IP address configurations (on Oki Devices only) from dynamic to static by using an intranet web page without the need to access the core PSV server application. In this scenario, a technician, who does not have PSV Admin rights can simply access an intranet web page rather than having to run a standalone utility.

You must create the intranet web page by adding a **Virtual Directory** prior to entering the virtual directory name and/or selecting the **Configure Static IP Address** check box in the setup routine. A new virtual directory can be created from the IIS section in your OS.

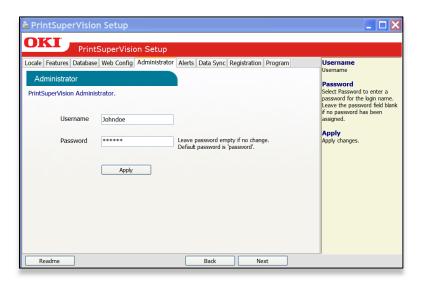


Note: This feature is intended for Intranet usage only, so if the PSV public website is configured for public internet, the check box should not be selected.

Assigning Admin Username and Password: Administrator Tab

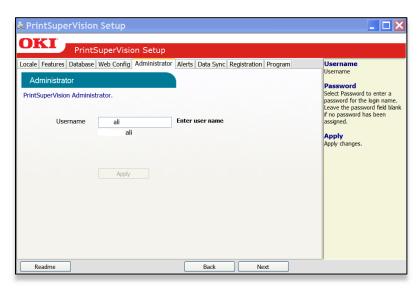
Newly installed versions of PSV come with a single user account called "Admin" which has all Administrator Access rights. It is strongly recommended to enter a new Username and Password for the global Administrator.

The Global Administrator can later add other administrators or standard users from within the application.



Click **Apply** after a new username and password have been created. The Global administrator can reset the login password using the Setup utility.

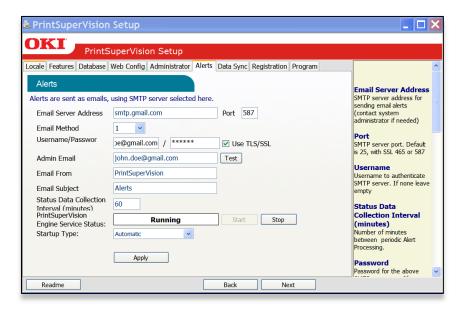
If you selected **Windows Integrated Authentication** mode described in the last section, the following screen will be displayed just for verification.



Click **Next** to go to the next setup module.

Configuring your E-mail server: Alerts Tab

In order for PSV to send out device related alerts via email, you must first enter the necessary information such as the address of your email server, username, password, the email address of the recipient, etc.



Enter the desired Email Server Address and SMTP server port (default port number is 25 and 456 or 587 if using SSL/ TLS).

Select the appropriate email sending method. PSV provides 4 methods that define how the email message is sent:

- **Method 1** This is the Default setting. It uses a SMTP library from IP Works
- **Method 2** Permits streaming. Emails are sent without buffering once the connection is established
- Method 3 Uses Webmail library from .NET 1.1
- **Method 4** Content of email is saved as a file attached to an email message

Method 1 is recommended, but you may try methods 2, 3 and 4 if emails are not successfully sent using the default setting.

If your email server requires authentication, indicate the appropriate username and password in the fields provided. Click the **TLS / SSL** checkbox if your organization uses these communication protocols.

Enter the email address of the recipient in the Admin Email field.

As an added convenience, PSV allows you customize the header and subject line of all email messages sent. Add the desired words to the "Email From" and "Email Subject" fields or keep the defaults which are PrintSuperVision and Alerts.

Indicate the interval time (in minutes) for PSV to wait to obtain device status. Set to a larger number if network traffic is a concern. Set to a smaller number if you would like more frequent updates reported from your print/copy devices.

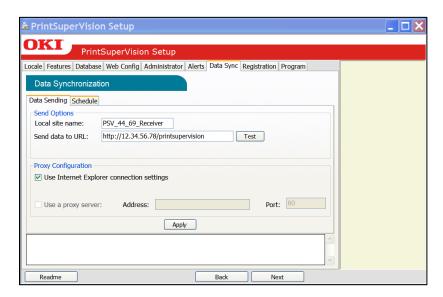
Finally, another added convenience allows you to start and stop the PrintSuperVision Service from the set up menu and select whether the PSV Services should start automatically, manually or are disabled.

You can test the email connection by clicking the **Test** button (located next to the Admin Email field). PSV will attempt to send an email message to the address you specified.

If an email is received successfully, click **Apply** to save your settings and click **Next** to go to the next setup module.

Data Synchronization: Data Synch Tab

Making configuration settings in the Data Sync section are only required when multiple PSV servers are installed and are configured to communicate with each other.



Disregard this section and click **Next** if you have a single PSV server /site that does not communicate with any other PSV server.

Note: PSV Enterprise Edition can receive and send data while PSV Professional Edition can only send data, therefore an Enterprise Edition must be designated as a receiving site.

Each PSV Enterprise server (site) can send and receive data which can help streamline the reporting process by collecting and saving data in one central location. Thus an admin may run reports from other PSV sites while being logged into one server designated as the "receiving site".

To receive data from other PSV sites, simply enter the name of the receiving PSV site in the "Local Site Name" field. If no data will be sent from the receiving hub PSV site, leave the Send Data to URL field blank.

It is important that the Local Site Name is specified. If a name is not entered, data will not be sent during data synchronization.

Each remote PSV site must also be configured to send data to the central hub PSV receiving site. To do that, you must log into each remote PSV site, assign a local site name as we just did, and indicate the address / URL of the receiving PSV site in the **Send Data to URL** field.

The data synch feature also allows you to specify a proxy server should one be required to connect to the PSV receiver site.

Keep the default setting checked "**Use IE Connection Settings**" if you would like the proxy configuration to be fetched from the current user's Internet Explorer configuration. Otherwise, check the **Use Proxy Server** box and enter the appropriate proxy address and port number.

Click **Apply** to save changes.

To schedule how often data synchronization should take place among PSV sites, click the **Schedule** tab and enter the appropriate time and interval.

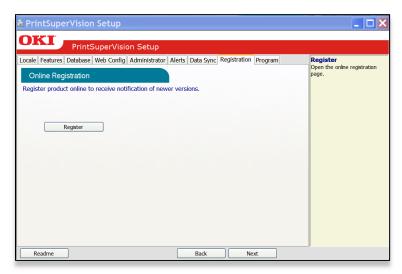
If no interval values are entered, PSV assigns a default value of 1 hour. The minimum value is 1 hour and the maximum interval value is 24 hours.

Click **Apply** to save changes and click **Next** to proceed to the next section

Note: The ability to configure the Data Synchronization feature is also available from within the PSV application and will be discussed later in this guide.

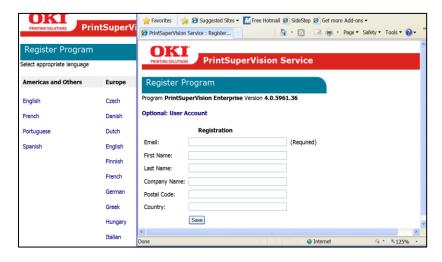
Software Registration: Registration Tab

You can register your new PrintSuperVision software with Oki Data Americas on-line by clicking the Register button.



Registering your name and email address with Oki Data will help us keep you informed of new product releases and PSV related information. All registration information supplied is kept in strict confidence.

Select the appropriate language / location to register. Enter your user information including your email address and click **Save**.

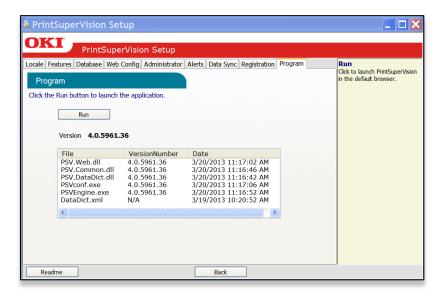


A validation email will be sent to the email address indicated. Click the validation link in the email message when you receive it and your information will be registered.

Back to the registration Process: If the PSV Setup tool is still running, click on the PSV Setup tool icon in the tool bar to return to the Setup process. Click **Next** to go to the next setup module.

Identifying PSV Version Numbers: Program Tab

The Program tab is provided as a means to quickly identify the version numbers of each major component in PrintSuperVision.



Click the **Readme** button to view the PSV Readme file, or

Click Back to return to a previous section, or

Click **Run** to complete the setup process and begin using the PSV application.

Getting Started

Now that you have installed and initially configured PrintSuperVision, you may use any browser-enabled computer or device connected to your network to access the PSV application.

Open your browser and type the IP address of the PSV server followed by /printsupervision. For example: http://12.34.56.78/printsupervision

If you are the Global Administrator or have Admin rights, click **Login**, and type your user name and password. If you have not changed the login username and password, the default is **admin** and **password**.

Context Sensitive Help

Throughout the PrintSuperVision application, help is just a click away. For context sensitive help, click the icon located in the upper right corner (next to the printer icon) on every page.

User Access

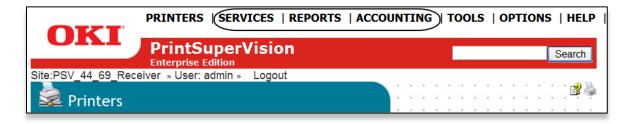
One of the first things to determine is the level of access rights to assign to each user. There are 3 ways a user can access the PSV application from any browser:

- Without Logging into PSV
- Logging in as a User
- Logging in as an Administrator

Be aware that certain menu options are only available to users with Admin rights that have logged into PSV. For example, in the following screenshot the user is not logged in:



In this example a user is logged in as an Administrator



If a user does not log in, the areas that are not accessible are **Services**, **Reports**, **and Accounting** and the following functionality will not be available

- Cannot view, add, or configure Alerts
- Cannot generate any type of report or configure email sending
- Cannot add or delete devices or users
- Cannot access accounting options including setting quota, obtaining device job logs

Adding a User / Assigning Individual User rights:

To add an individual user to the system:

- 1. Select **Options** from the main menu
- 2. Click **Users** from the drop down box
- 3. Click the **Add User** button and fill in the user's information. Make sure that you include a password that contains at least 6 digits.
- 4. Before clicking **Save**, assign the appropriate user rights by Selecting **Administrator** from the **Add to Group** drop-down box or leave it blank for Standard User rights.
- 5. Click **Save**

A list of users will be displayed. Notice that individuals with Admin rights are displayed with a red line under the icon while those with Standard User rights are displayed with a blue line under the icon.

Note: User attributes can be changed at any time by clicking the icon in the Edit column and entering new information.

Importing a List of Users

It may also be helpful to take advantage of the **Import Users** feature to save time. You can import users into the application from a text file using a comma separated format. The fields available for data import are the same fields listed in the **Add User** section.

Fields cannot be left empty with the exception of **Password**. If passwords are not supplied in the text file, PSV will set it to the word "password" by default.

To import a list of users:

- 1. From the main menu click **Options**
- 2. Select **Users**
- 3. Select the **Import Users** button
- 4. Specify the text file location or click **Browse** to locate the file
- 5. Click the **Import Users** button.

PSV will add users one by one into the application. When complete, the number of users imported successfully will be displayed as well as details of any errors that may have occurred.

Creating User Groups:

In large organizations it may be helpful to organize users into groups based on admin status, user status or by any number of criteria. This feature should not be confused with creating groups of print devices which is also possible in PSV and described in the next section.

To create a group of users:

- 1. Click your browser's back button or select **Options** from the main menu
- 2. Select **User** from the drop down box.
- 3. Click the **User Groups** button
- 4. Click the **Add User Group** button
- 5. Enter a name for the user group
- 6. Click **Save.** A list of groups will be displayed.

You will notice that the new group name is automatically added to the **Add to Group** drop down menu when adding an individual user.

For convenience, the **All Users** button has been provided in the **User Groups** area to help identify if an individual has been assigned to a group.

Changing Your Password:

- 1. Select **Options** from the main menu
- 2. Click Change Password
- 3. Enter your current password, then enter your new password and confirm the new password by typing it again
- 4. Click Change to save new password

Creating / Editing Groups of Devices:

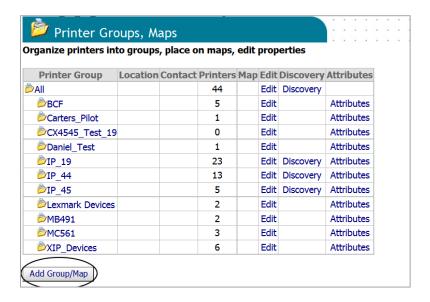
Before discovering the devices on your network, it may be beneficial to organize them into logical groups in order to monitor and manage them in an efficient manner.

- A Group can have attributes assigned to it such as location, contact person, SNMP community and even images of maps and floor plans which are used to quickly locate individual devices
- Groups can be arranged in a hierarchy where a "parent group" can contain sub groups. A device can also be a member of more than one group
- You can assign a subnet or a range of IP addresses (for discovery purposes) to a group, and as an added convenience, a link to the discovery screen is provided when groups are displayed.

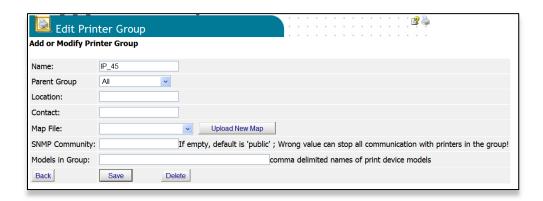
To create or edit a Group:

1. Click **Printers** from the main menu and **Printer Groups, Maps** from the drop down menu to view a list of groups already created.

2. Click the Add Group/Map button to create a new group of devices



3. Assign a Parent group, a group name, location, contact person responsible for the group, a map or floor plan and the SNMP community name. If Model Names are entered in the **Models in Group** field, the group will be populated with the model names that match. Whenever a new device is discovered or added to PSV that matches the model name, that device will be added to the group.

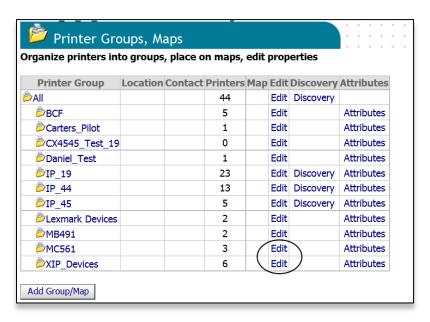


4. Click the **Save** button

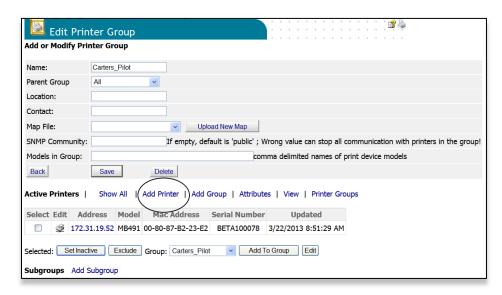
Adding/Removing a Device to/from a Group:

To add a device to an existing Group

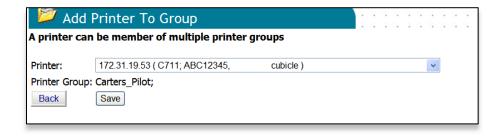
- 1. Click **Printers** from the main menu and **Printer Groups, Maps** from the drop down menu view a list of groups already created
- 2. Click **Edit** in the Edit Column of the group you wish to modify.



3. Click Add Printer



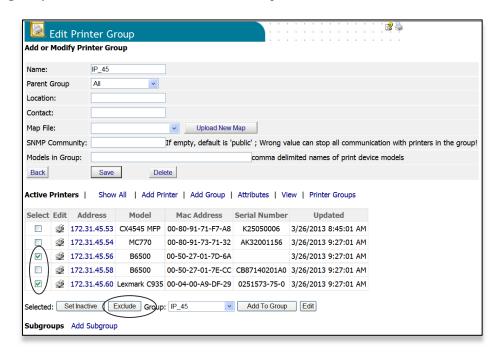
4. Select the appropriate device from the Printer drop down menu and click Save



If the group was initially empty, you will see the added device listed after clicking save. If the group already contained devices you will see an updated list of all devices in that group.

To **remove** a device from an existing group

- 1. Click **Printers** from the main menu and Printer Groups, Maps from the drop-down menu to view a list of groups already created
- 2. Click Edit in the Edit Column
- 3. Select the devices from the list of grouped devices displayed on the **Edit Printer Group** screen and click **Exclude**. The devices will be deleted from the selected group. You can also add the selected devices to another group by selecting the devices and a different group name and click **Add to Group**.



Adding Maps and Floor Plans to a Group

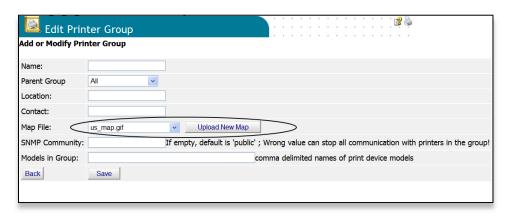
Groups can also have images of maps, floor plans, etc. assigned to them, which in turn allows PSV to display the location of a device icon on an associated map or floor plan.

Several popular image file formats for maps and floor plans are supported, such as .gif, .jpg, .bmp, or .png.

You can assign a map or floor plan image to a new group as soon as you create the group or you can add a map / floor plan image to an existing group at any time.

To add the image while creating the group:

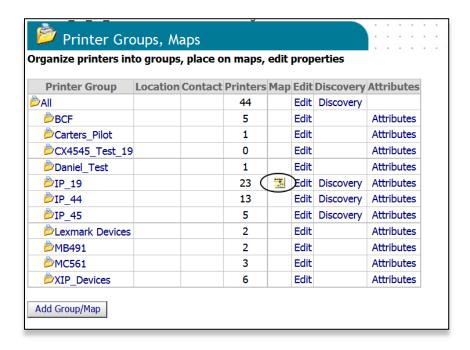
1. Select Printers from the main menu and click **Printer Groups, Maps**.



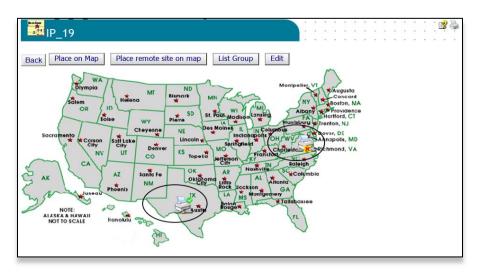
- 2. Select a saved image file from the drop down menu and click **Save** or click **Upload New Map** to browse for your desired image. Once an image has been located, click **Upload**.
- 3. Place a device icon on the map or floor plan

Note: Remember the individual device must be a member of a group before it can be placed on the map.

- 4. From the main menu select **Printers** and **Printer Groups** from the drop down box. If you have successfully linked an image with a group, you will see an icon in the map column.
- 5. Click the **map icon** and the image will be displayed.

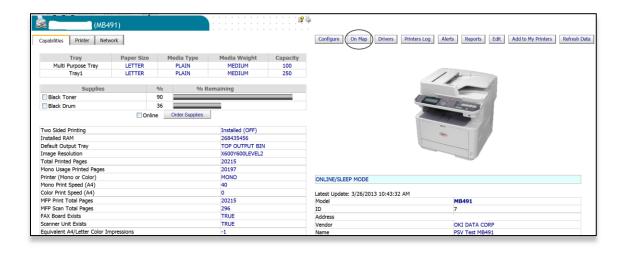


- 6. Click **Place on Map**, and select a device from the drop down menu.
- 7. Click on the image and the device icon will be placed where your mouse pointer is positioned



To move the device icons at any time, click the **Place on Map button** and drag and drop the icon to the desired location on the map. Left click once more to activate.

Remember, when viewing the map or floor plan, the interactive icons can be clicked at any time to go directly to the device's status page (displayed below).

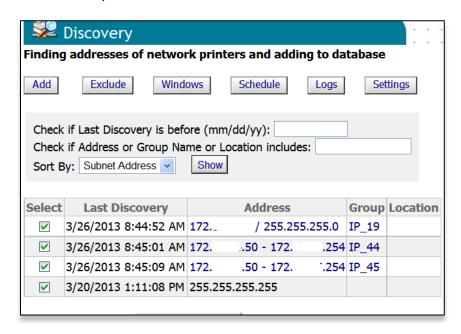


While on the **Device Status Page**, you can link back to the map or floor plan by clicking the **On Map** button.

Note: If you return to the map or floor plan from the **Device Status Page** by clicking the **On Map** button you will only see that device's icon displayed on the image. To see all devices on the map or floor plan, click **Printers** from the main menu and select **Printer Groups, Maps** from the drop down box. Click the map icon associated with a particular group.

Discovering Devices

To discover devices on your network, click **Printers** from the main menu and select **Discovery** from the drop down menu. PSV is capable of discovering any device that is compliant with Public MIB Specification RFC 3805.



Click **Start Discovery** if you want to discover all of the compatible devices on your network. For large organizations, see **Importing IP Addresses from a Text File: Making Discovery Easier:** section before starting the discovery process.

For Enterprises with several hundred or even several thousand devices, it may be time consuming to discover all devices at once.

PSV provides the flexibility to selectively discover individual subnets or ranges of IP Addresses by simply selecting the appropriate check box and clicking **Start Discovery**.

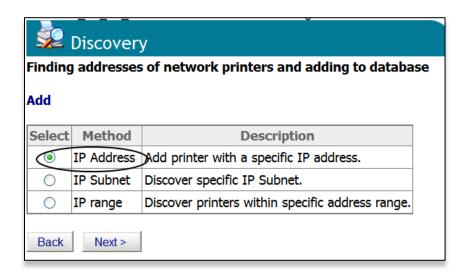
Discovery: Add Button

Click the **Add** button to selectively discover devices.

The **Add** button allows you to:

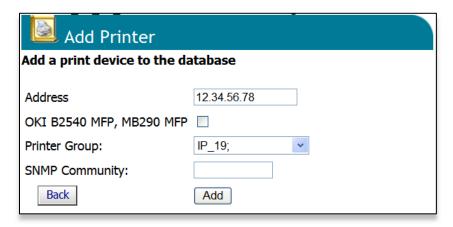
- Add an IP address of a device to the discovery database
- Create a discovery list based on IP subnet entered
- Create a discovery list based on a range of IP addresses indicated

Click the IP Address radio button and click Next.



When adding a specific IP address to the discovery database, PSV provides an option to assign the device to a specific group of devices and associate the group to a specific SNMP community.

Enter an IP address, select a group name from the **Printer Group** drop down menu and type the desired SNMP community. Click **Add** to save your changes.



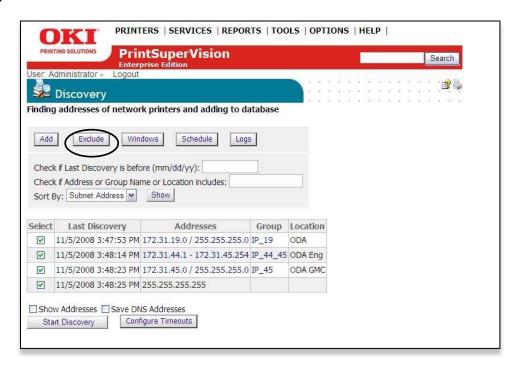
Similar to adding a single IP Address to a database, click the **IP Subnet** or **IP Range** radio buttons to create a discovery list for a specific IP Subnet or Range of IP addresses.

PSV also provides the option to assign a group name to the subnet or the IP address range by selecting a predefined name from the group drop down menu or by clicking on the map/group button if you would like to create a new group name.

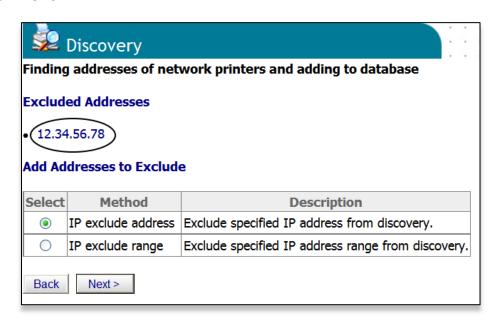
Enter the appropriate information and click **Save**.

Discovery: Exclude Button

Use the **Exclude** button to exclude a specific IP address or IP address range from the discovery process.



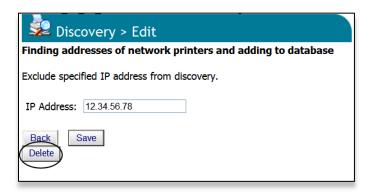
 Click the Exclude button and select either Exclude IP address or Exclude IP range and Click Next



Notice that PSV displays all IP Addresses and IP Address Ranges that have been excluded previously.

2. Enter desired IP address to exclude and click **Save**, or for IP Range, enter the range of IP addresses to exclude and click **Save**.

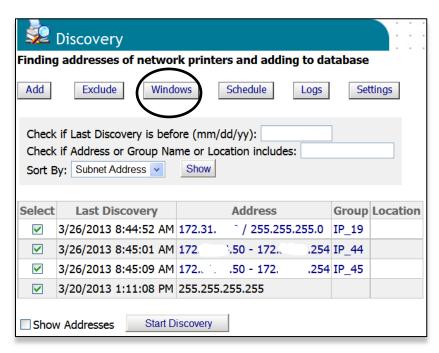
 To include an IP address that was previously excluded, return to the Discovery section, click the **Exclude** button, Click on one of the **IP addresses** listed as previously excluded and click the **Delete** button.



Discovery: Windows Button

From the Discovery screen, click the **Windows** button.

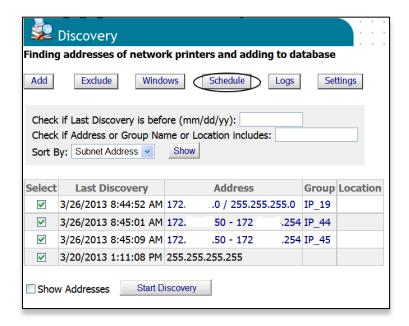
The Windows button provides a list of devices that have been saved in the local system's Windows Print Queue. The local system is defined as the desktop or server that PSV is running on. Each device listed can be selectively saved to the discovery database.

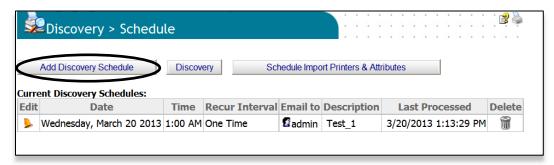


- 1. Click the check boxes to select the devices to add to the discovery database
- 2. Click the **Start Discovery** button.

Discovery: Schedule Button

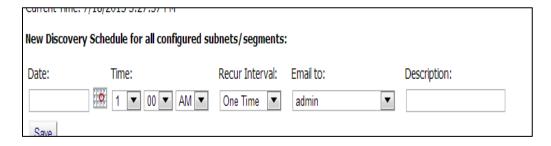
Discoveries can be scheduled to occur on a regular basis by clicking the **Schedule** button.





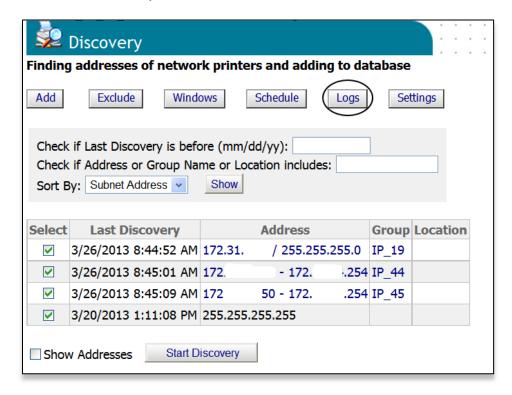
Click the Add Discovery Schedule button

Indicate the appropriate date, time and a recurring interval that you desire for the discovery to take place. PSV can also send you an email each time discovery takes place. Enter the appropriate email address if desired. Click **Save** to save the discovery schedule.



Discovery: Logs Button

PSV records a log of all discoveries performed (and several other system activities) and indicates whether the discovery was successful or not.



Click the **Logs** button to view the system activity log.

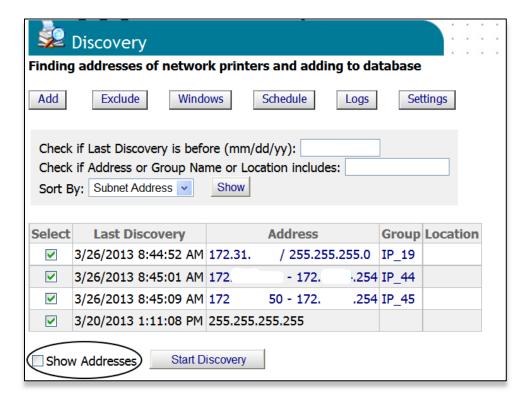
To obtain just a Discovery log, select **Discovery** from the **Type** drop down box, indicate time frame by entering desired dates and click **Show** to display the log.

Note: This feature creates activity logs for all other activities supported in the drop down box.

Caution: Clicking **Clear Log** will delete all discovery log entries permanently.

Discovery: Show Addresses check box

Selecting **Show Addresses** displays a list of all IP addresses that PSV attempts to discover when a Discovery is performed.



Discovery: Start Discovery Button

Clicking the Start Discovery button begins the discovery process for all subnets and IP address ranges selected.

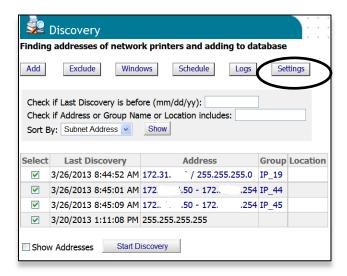
After the discovery process is complete, clicking the **Printers** button at the bottom of the screen will display a list of the devices that were previously discovered with refreshed status.

Clicking the **Discovery** button takes you back to the main discovery screen.

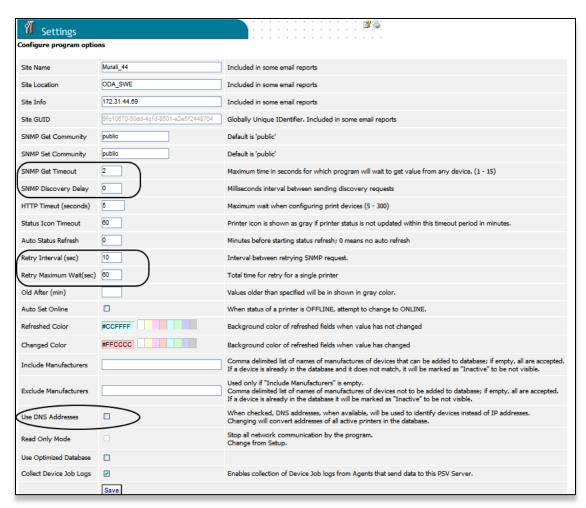
Clicking the **Collect Data Now** button collects more printing device data from and saves in PSV database.

Discovery: Settings Button

By clicking the **Settings** button you are linked to a universal page that is not specific to just Discovery options.



Settings specific to Discovery are circled in the screen shot below:



Configuring Timeouts

The SNMP Get timeout value controls the length of time PSV will wait for a response from the device before timing out. Keep in mind the greater the SNMP Get timeout value, the longer the overall discovery will take.

SNMP Discovery Delay

The SNMP Discovery Delay value can also be configured. This value sets the delay between each discovery request. This value may have to be tuned to suit the network configuration considering the number of devices being discovered.

Status Icon Timeout

The status icon timeout value sets the time interval that PSV waits for a response from a device before turning the status icon gray (status icon is displayed in the Printers List). Notice that after clicking **Refresh**, the status icons are returned to an active state. Enter a desired value for each option and click **Save.**

Retry Interval / Retry Maximum Wait

The Retry Interval / Retry Maximum Wait values can be configured, and may have to be tuned to suit the network configuration.

Use DNS Addresses

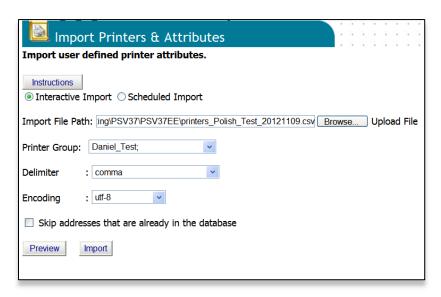
Use DNS Addresses translates IP addresses to DNS names if possible, and saves them in the PSV database. When a list of devices is displayed in other areas of PSV, you will see the DNS address name displayed instead of the IP address. This is particularly helpful when an organization uses DHCP.

Importing IP Addresses from a text file: Making Discovery Easier

As an alternative to running discovery, you may also import a list of devices using a CSV file.

In some organizations, IT departments may keep track of the IP addresses of their print and copy devices in a text file. If such a file exists, you can use PSV's "Import" feature to speed the discovery process. This is done by simply importing the text file:

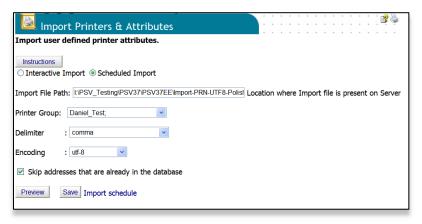
1. From the main menu click Printers and select Import Printers & Attributes



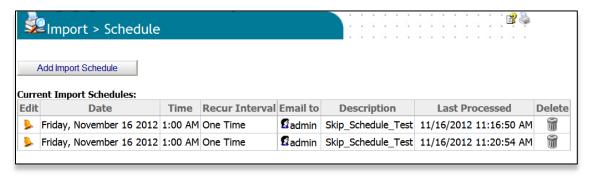
- 2. Click **Browse** to locate the desired file. The text file should be formatted so that one device address is on each line of the file. For more detailed instructions click the **Instructions** button.
- 3. Select an appropriate group name from the **Printer Group** dropdown box (or leave blank).
- 4. Select the way the file is delimited by selecting **comma, semi colon or tab**
- 5. Select the format of the text file: UTF-8 is the normal format. Select the format out of the list shown in the drop down list.
- 6. To add only new devices added to the CSV file since the last discovery, select Skip addresses that are already in the database checkbox.

You may click **Preview** to view the data before importing it or Click **Import** to add the devices immediately. The import process can also be automated and scheduled to occur on a regular basis.

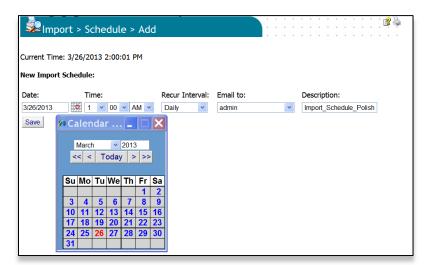
To schedule an import:



- 1. Click the **Scheduled Import** button
- 2. Enter the location of the file to be imported in the Import File Path field
- 3. Enter a printer group if you want the imported devices to be placed in a specific group
- 4. Select the way the file is delimited by selecting comma, semi colon or tab
- 5. Select the text file format
- 6. To add only the new devices added, check Skip addresses that are already in the database checkbox
- 7. Click Save
- 8. Click the Import Schedule link to indicate when the file should be imported



9. Click the Add Import Schedule button

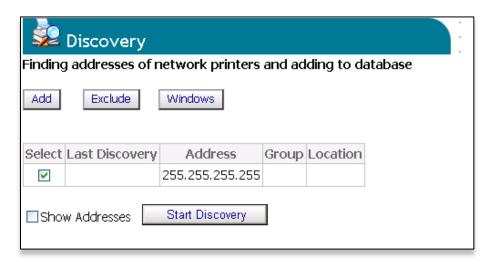


10.Enter date, time, recurring interval and who should receive the confirming email, click **Save**

Discovering Network Devices: Easy Configuration

If you have installed the single-user "Easy Configuration" option from PSV Professional Edition you will notice there are fewer discovery options.

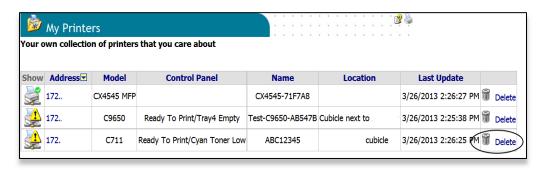
Click **Printers** from the main menu and select **Discovery** from the drop down box. The two options available are: **Add Subnet** and **Exclude**. Both features are included in PSV Enterprise. See previous discussion for a complete description of these features.



My Printers

An alternative way to group devices together is to use the **My Printers** feature. It's an easy way to view device status with minimal mouse clicks.

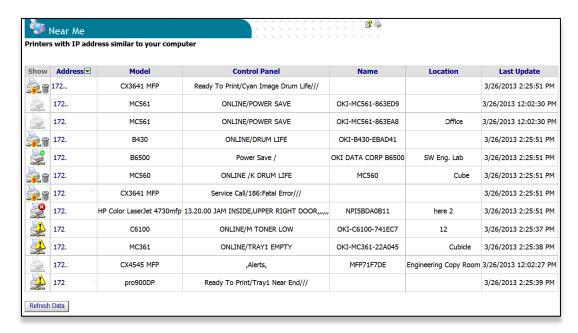
1. From the main menu select **Printers** and **My Printers** from the drop down box. You will see a list of devices that have been added to the My Printers group.



- 2. To add a device to the My Printers group, simply click the **Add Printer** button, choose the desired device and click **Save**.
- 3. To delete a device, click the trash can icon / **Delete** button listed in the right column.

Near Me

Another time saving, grouping feature available in PrintSuperVision is called **Near Me.** From the main menu select **Printers** and **Near Me** from the drop down menu. Device status in the Near Me group will be displayed



Near Me allows a user to quickly view the status of devices that are conceptually located near the PC being used, without the need to configure or group devices.

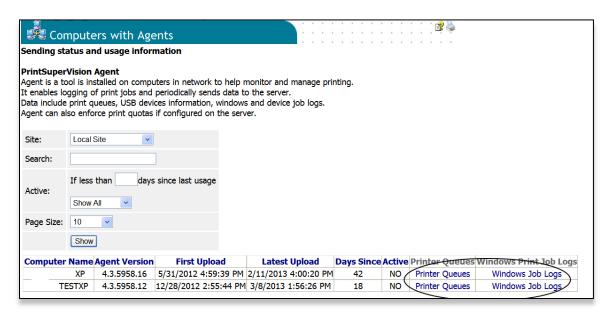
PSV detects and locates devices that have similar network addresses to the client computer (or browser enabled device) being used to access the PSV application and automatically includes those devices in the Near Me group.

Note: Devices cannot be added or deleted from the Near Me group.

Computers with Agents

If you have installed the PSV Agent on desktops or laptops within your organization to monitor USB-connected Oki print devices, you have the ability to search for and view those client computers from PSV.

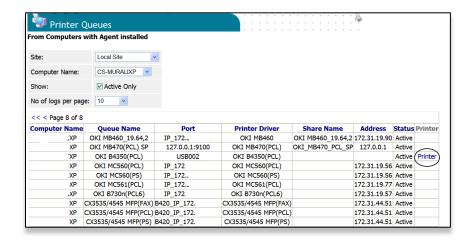
Click **Printers** from the main menu and **Computers with Agents** from the drop down menu.



You can search for the computers on your network that are running the PSV agent by using Site, Search, and whether the Agent is Active or not. Click **Show** to perform the search.

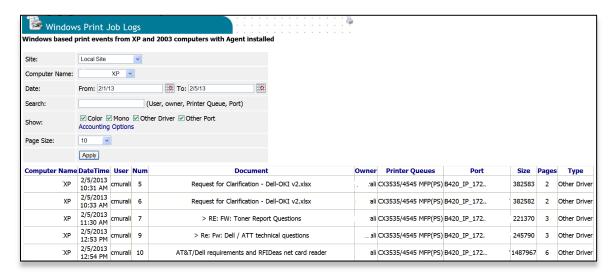
When the search results are returned, you can view all of the print queues and print drivers that an individual user has installed on their computer and can even obtain consumable status and printed page counts from Oki print devices that are connected via USB.

To view individual print queues, click the **Printer Queues** link.



To view the status page that contains page counts, supplies status and the current operational status for a device, Click the **Printer** link.

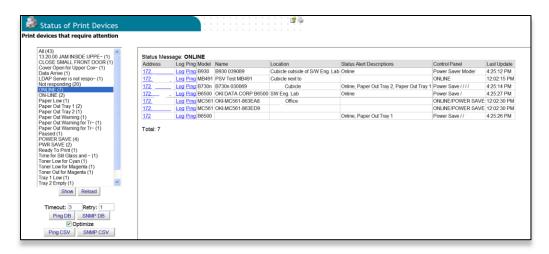
To view **Windows Job Logs** return to the Computers with Agents screen and click the Windows Job Logs link. This will display a list of jobs printed and provides many filtering options.



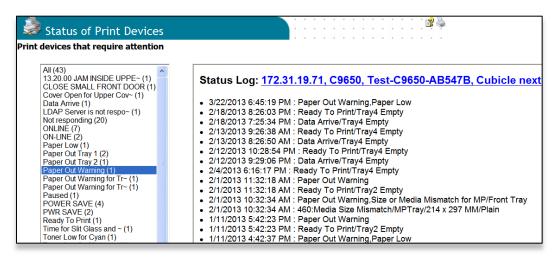
Status of Print Devices

For a quick view of current status of all devices being monitored, click **Printers** from the main menu and select **Status of Print Devices** from the drop down menu.

Select a status category from the list on the left. Devices matching that status will be displayed on the right.

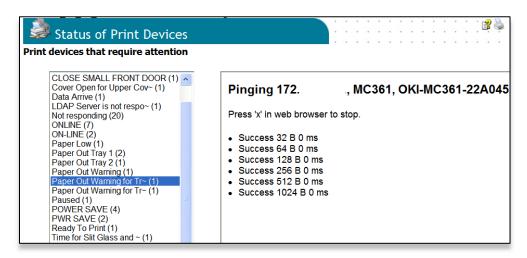


To obtain more detailed status of an individual device, select the word "**Log"**. Historic data collected by PSV will be displayed for that device.

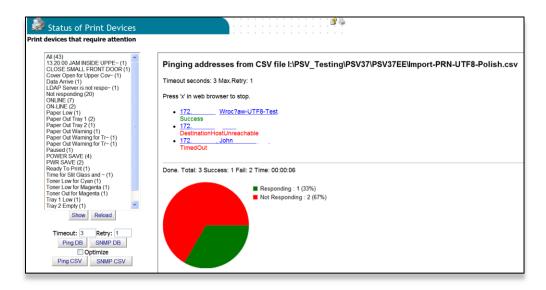


PSV normally uses SNMP to communicate with Print Devices, but from time to time you may want to know if a device is responding by doing a simple Ping. The Ping feature is available from the **Status of Print Devices** screen.

Click the word **Ping** in the list of devices or Click the **PingDB** button or **PingCSV** button which will indicate whether the device is responding or not.



The **Ping DB** button only pings device addresses that are saved in the PSV database, while **Ping CSV** will only ping the devices saved in the CSV file used to import your devices.



The **SNMP DB** button provides status of all devices saved in the PSV database by using SNMP while the **SNMP CSV** button provides status of only those devices listed in the CSV file used for device import.

The **Optimize** button for both Ping and SNMP queries, only targets the devices that did not respond to the earlier request, thus streamlining the process.

Configuring Email Alerts

PSV can notify a helpdesk or network admin that a device has generated an alert.

Alert notifications are available in the Enterprise Edition and the server configuration of the Professional Edition. Alerts are not available in the single-user Easy Configuration option in the Professional Edition.

Note: Only users with Admin rights can edit email alert configurations or set alerts for other users or user groups. A non-Admin user however, may configure and view Alerts just for themselves.

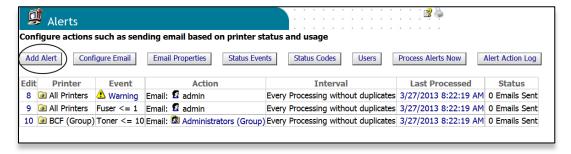
PSV uses email to deliver alert conditions. The email message can be sent to an individual user or a group of users.

An Alert can also be saved in a "log file" or processed by another software application (if you choose to perform the integration).

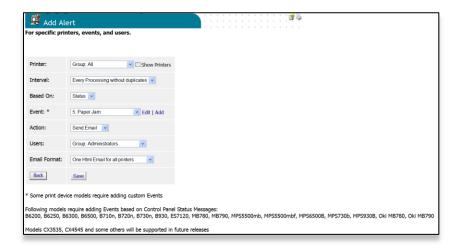
Each alert can be configured to be processed immediately upon receiving updated status from the device, or processed at specified time intervals.

To add an email Alert:

1. Select **Services** from the main menu and **Alerts** from the drop down box



2. Click the Add Alert button.



Adding an alert requires the following information and steps

- 3. Identify the device or a group of devices to monitor and select it from the **Printer:** drop down box
- 4. Select how often you would like the Alert to be sent from the interval drop down box
- 5. Next, you have the option to select **Usage** or **Status** from the "Based On" drop down menu. Some explanation may be required before proceeding:

A **Status** based alert instructs PSV to act upon events that are generated directly by the print device and generally describe a device state such as "cover open" or "paper out".

A **Usage** based alert is used for monitoring supplies and maintenance items such as toner, drums, transfer belts and fusers. A greater level of detail can be applied to Usage based Alerts since you can set life remaining thresholds for each item.

Usage-based Alerts

6. Select **Usage** from the drop down menu

Add Alert For specific printers, events, and users.	
Printer:	Group: All
Interval:	Every Processing without duplicates
Based On:	Usage v
Supplies:	✓ Toner ✓ Drum ✓ Fuser ✓ Belt
Value <=	20 %
Action:	Send Email 🔻
Users:	Group: Administrators
Email Format:	One Html Email for all printers
Back	Save

Notice in the screenshot above that you have the ability to choose all supply and maintenance items or just the items that are most important to you.

You also have the ability to set the life remaining threshold that triggers the alert. So in the example above PSV will send an alert email whenever toner or drum exceeds 20% life remaining.

In order to assign different life remaining threshold values to each individual supply or maintenance item you must create separate Alerts for each item.

- 7. Select the supply items that you wish to create an Alert for
- 8. Enter a % life remaining threshold in the **Value** field that applies to each supply item checked
- 9. Select the appropriate action from the drop down menu that will occur when an Alert condition is met. Select **Send Email** to have the Alert message delivered by email.

Note that there are 2 additional options in the drop down box: **Run Program** and **Log Alert Only**. Both will be discussed later.

- 10. Select the user or group of users the Alert message will be sent to
- 11. Select the format of the email message (text or html) to be sent. To avoid duplicate alerts, select the Email format option: Individual Email for each Event.

Note that while this option may reduce duplicate alerts, the number of email alerts will multiply since one alert will be sent for each device and each condition.

10. Click **Save** after the information has been entered

Status-based Alerts:

To select a Status based Alert, return to step 5 above by clicking the **Back** button or by clicking the Add Alerts button from the main Alerts screen.

1. Select the **Event** group that will trigger the Alert. For example, select "Error" if you only want to be notified when the device reports an error condition. Individual status conditions have been grouped in this list for convenience.

Keep in mind that if you have previously added events manually they will automatically be displayed in this drop down box

2. Select the appropriate action from the drop down menu that will occur when an Alert condition is met. Select **Send Email** to have the Alert message delivered by email.

Note: As mentioned previously, there are 2 additional options in the **Event** drop down box: **Run Program** and **Log Alert Only**.

Run Program allows PSV to call another windows based application that can be installed on the same PSV server. Using Run Program requires custom integration not included in PSV.

Run Program Action, available in Enterprise Edition only, requires providing full file-path (on the computer where PSV server is running) or the program to be called when the Alert match is found.

The program is called by the PSV server with a standard set of arguments.

For example: .BAT file:

1:date 2:time 3:address 4:model 5:supplies_type 6:supplies_level 7:supplies_sku

```
rem append command line arguments to a text file

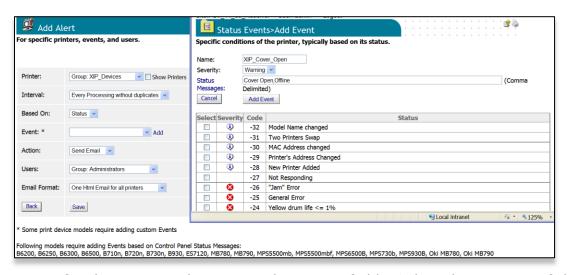
echo 83 84 87 81 >> d:\tmp\test090515.txt
```

Log Alert Only adds the Alert into a running log file.

- 3. Select the user or group of users the Alert message will be sent to
- 4. Select the format of the email message (text or html) to be sent. To avoid duplicate alerts further, select the Email format option: Individual Email for each Event.
- 5. Click **Save** after the information has been entered.

Note: For some OKI models, such as the B6500 and some B700 series models, configuring Status Alerts requires the creation of custom events. Usage Alerts are not affected and can be configured as described previously.

To create a custom event and corresponding Status Alert, Click the **Add** link located next to the Event drop down menu. You will be directed to the **Add Alert** page.

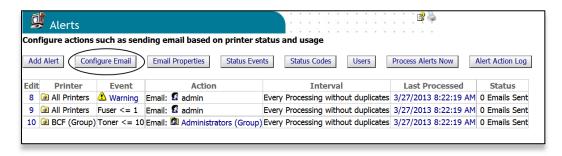


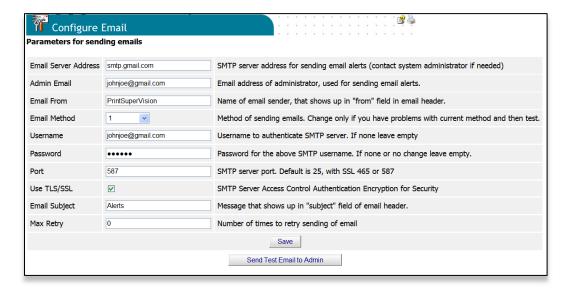
Create a name for the event and type it in the **Name** field. Select the severity of the event and describe the status of the event as it appears on the operator panel of the device. Click the **Add Event** button.

See the **Configuring Status Events** section on page xx for more detail

Configuring an Email Server for Alerts:

1. To set the parameters for sending alerts in email, click the **Configure Email** button from the **Alerts** page. If you already configured email settings using PSV Setup utility, those settings will be displayed.

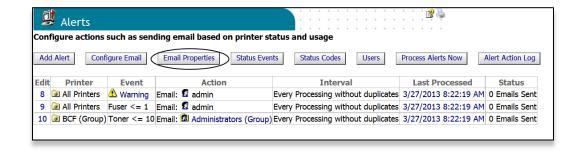




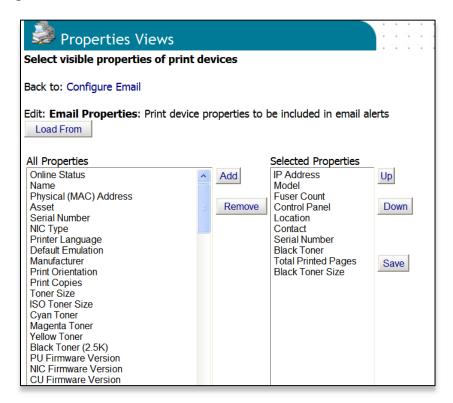
- 2. Enter the following information and click **Save:**
 - The address of your email server
 - The Administrator's email address
 - The Sender's name that will be placed in the "From" field in the email
 - The email method
 - The Username and Password for authentication if required
 - The SMTP Port
 - TLS or SSL Encryption
 - The Subject of email message
 - The maximum number of message attempts

Note: To test whether the email configuration is correct, click the **Send Test Email to Admin** button. PSV will attempt to send an email to the address specified.

3. To select the Print device properties to be included in the email alert message, click the **Email Properties** Button.



4. Highlight the desired properties to be included in the email alert message and click the **Add** button. It will appear in the Selected Properties column. To remove it, simply highlight it and click the **Remove** button.



For convenience, four pre-populated lists of properties are available by clicking the **Load From** button. The choices are: Standard, Long List, Toners and Toner Details.

Once selected, you will notice that the properties associated with a pre-populated list are already entered into the "Selected Properties" column. Don't forget to click **Save** to save your settings.

Testing The Email Alert Configuration:

For convenience, you can click the **Process Alerts Now** button to make sure everything is configured properly. PSV will process the alert and send an email message to the assigned recipient.

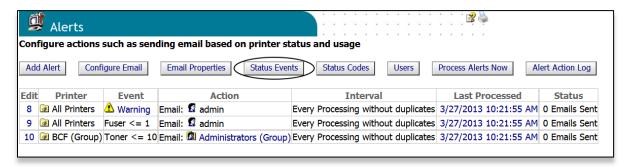
Note: the "Process Alerts Now" function is system wide and not tied to a particular device or group. Therefore, if you have a large number of devices in your network, it may take an extended period of time to scan your entire fleet of devices and send the alert email.

Configuring Status Events:

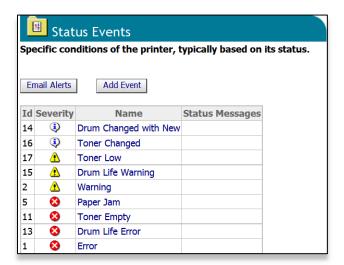
PrintSuperVision allows you to customize certain events that trigger notification emails. An "Event" is different than a standard Alert condition where the print device generates the Alert and PSV delivers the Alert in an email.

A customized Event can be created where a single condition or several conditions are assigned to one Event. This can be useful if you only want to be notified when a critical condition is met or when several conditions are met.

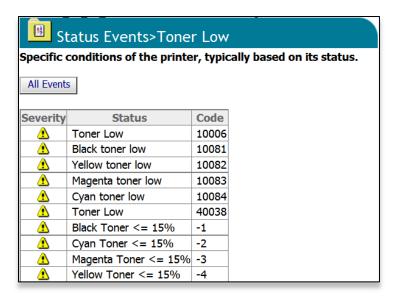
1. To add or modify an event, go back to the Alerts page and click the **Status Events** button.



A list of default events is displayed. You can add an event by clicking the **Add Event** button, or review the conditions of each existing event.



2. Click the name of the Event to see a list of conditions that are assigned to that event category. Click "Toner Low" for example

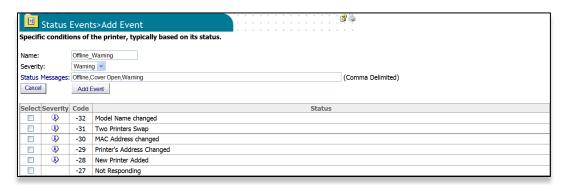


This Event is configured to send an email alert when toner is less than or equal to 15% remaining.

Notice also that PrintSuperVision translates difficult to understand proprietary error codes displayed by the device into meaningful descriptions.

Click your browsers back button

3. Click the Add Event button



- 4. Enter a unique name for the customized event
- 5. Assign a severity level to the event by selecting one of the options from the drop down box

Note: It is not necessary to fill in the **Status Messages** field. Entering a description in that field instructs PSV to try and match a similar description of a message that is displayed on the device's Control Panel. This is an alternative method to adding Alerts by entering a name and severity level described above.

Keep in mind that the description displayed on the device operator panel must match the description you entered in the **Status Messages** field exactly in order for PSV to recognize the condition and act upon it.

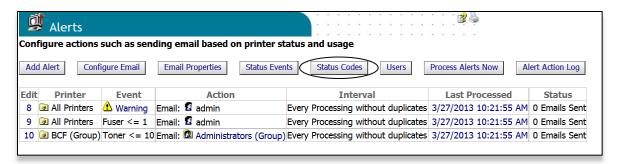
- 6. Select one or more conditions to assign to the event by selecting the check boxes in the left margin.
- 7. Click the **Add Event** button to save the customized Event.

Customizing Status Codes:

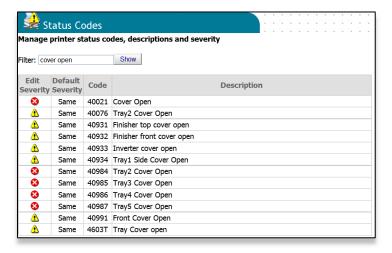
PSV also allows you to customize the severity level of any of the status code conditions. By default, PSV has assigned a predefined severity level to each status code, but you may decide that a code is too critical or not critical enough for the default code so you have the option to change the status code displayed in PSV.

To modify status codes:

1. Return to the Alerts main page and click the **Status Codes** button.



2. Scroll through the list of conditions or type in a search word to narrow your choices.



3. Click on the severity level icon listed in the **Edit Severity** column.

4. Select the new severity level from the drop down menu and click **Save**



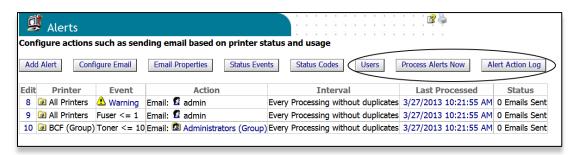
The default severity level and the new severity level will both be displayed in the Status Codes page. You may go back and change the severity level at any time.



Processing Alerts / Generating Alert Logs:

This section discusses the functionality of the **Users** button, the **Process Alerts Now** button and the **Alerts Action Log** button.

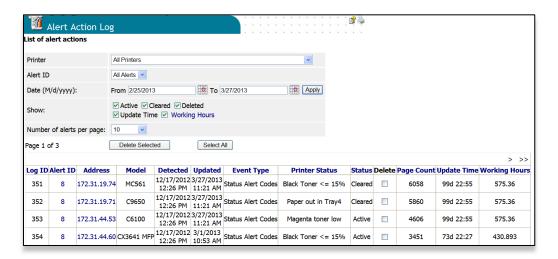
Click your browsers back button to return to the **Alerts** main page.



The **Users** button is provided for navigation convenience and links to the All Users page.

The **Process Alerts Now** button processes all outstanding Alert conditions immediately. As mentioned previously, it is a system wide command and will scan every device in the network and process outstanding Alerts. If you are monitoring several thousand devices on the network, this process may take an extended period of time to complete.

The **Alert Action Log** button takes you to the following screen where you can selectively generate a list of all Alerts that have been processed for a single device or group of devices.



This page provides a history of the alert logs that were sent by PSV. The alert logs can be filtered by alert ID, date range, and alert status (active, cleared, deleted).

The **Update Time** option indicates the amount of time an Alert has been in an Active state (it is calculated by subtracting detected time from updated time).

The Update Time format is displayed in days followed by hours. This feature is particularly helpful in determining response times by viewing the amount of time the Alert was in an Active state, or in other words, the time it took to clear the Alert.

The **Working Hours** option displays the amount of time (adjusted for work hours) that an Alert has been in an active state, and can also be used to estimate response times.

To change the status of an Alert Log from Active or Cleared to Deleted, click the checkbox in the Delete column of the appropriate row(s). Once selected, click the **Delete Selected** button to make the change.

Any rows that have their status changed to Deleted will still be shown on the current page even if the Deleted checkbox is unchecked. This will continue until a different set of Alert Log entries is selected or the user moves to a different page in the results.

If you need to change the status of a specific Alert Log or a large number of entries at the same time, from Active or Cleared to Deleted, the following suggestions could make this task easier:

- a. If you have a large number of entries, use the Alert ID drop-down list to search for and work on a single alert
- b. Use the From and To dates. For example, you may want to look only at entries that have not been updated in over one year.

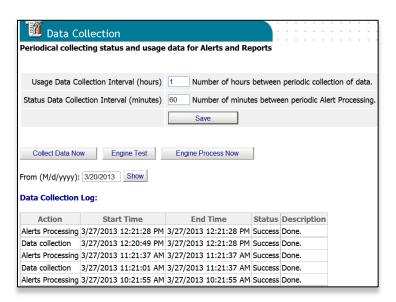
- c. Uncheck the Deleted checkbox. If you are not interested in Cleared items, then uncheck the Cleared checkbox as well
- d. Select 'All Alerts' from the 'Number of alerts per page' drop-down list. All of the Alert Log entries that match the specified conditions will be shown on a single page.
- e. Use the 'Select All' button to select all of the entries shown on the current page. Individual rows can be unselected by clicking the Delete check box of that row.
- f. Click the 'Delete Selected' button. All of the records with a check in the Delete column will have their status changed to Deleted.

Processing Alerts: Setting the Data Collection Interval

PSV periodically collects data from print devices and saves it into a database, thereby enabling PSV to create reports or generate Alerts. Users with Admin rights can configure the data collection interval time in hours for basic usage information and in minutes for processing Alerts.

To set the data collection interval:

- 1. Click **Services** from the main menu and select **Data Collection Services** from the drop down box.
- 2. Indicate the desired data collection interval times and click **Save**.



To display a log of previous data collection activity for a selected date range, enter the appropriate date and click **Show**. PSV will list all data collection activity from the date indicated to the present date.

For added convenience, click the **Collect Data Now** button and specify options. Click the **Start** button to begin processing.

Configuring Print Devices Remotely

In addition to monitoring and managing print devices, PSV Enterprise includes tools for automating the configuration of print devices in the field. This is helpful when you are configuring a large fleet of multi-function devices that may require several configuration settings such as populating Email Address Books or Fax Phone Books on each device.

The configuration tool makes it possible to configure all compatible devices with the same parameters, as well as the ability to configure individual devices with desired values.

The configuration values can be saved in the PSV database and later used to re-configure (i.e. clone) all devices to desired default values with one mouse click.

Examples of how the configuration tool can be used are:

- Common configuration values such as "system contact" can be imported into PSV and then applied to multiple devices.
- Email and fax address books used in MFP devices can be imported and quickly applied to multiple MFPs. PSV allows an address book to be configured with a combination of shared addresses that are common to all devices and local addresses that apply only to a single device.
- Scan profiles for MB4xx MFP devices can be imported and quickly applied to multiple MFPs. PSV allows the scan profile to be configured with a combination of shared values that are common to all devices and local values that apply only to a single device.
- Once a device is fully configured, that configuration can be saved and used to configure similar devices as they are brought online or to restore a device to a previous configuration.

Configuration: Behind the Scenes:

PSV uses HTTP (web) protocol to do most of the configuration of print devices. This means the PSV program helps automate what can also be done manually from a print device's embedded web page. With large networks, this automation can save a tremendous amount of time and ensure all devices are configured consistently and quickly.

The Configuration tool in PSV can be used in three ways:

- Configuration settings can be applied selectively to one device at a time
- Configuration parameters for individual devices can be saved as attributes which can be used to configure one or more devices.
- Configuration parameters that are the same for all devices can be saved as common attributes. Once saved to the PSV database, any compatible device can be configured with these values. "Common" attributes have preference over individual attributes.

To help populate the PSV database with attributes, there is an "**Export/Import**" feature that can **import** both individual and common attributes from a CSV file. Attribute values can also be exported to a CSV file. This can be used to obtain the required attribute names that need to be in the first line of CSV files.

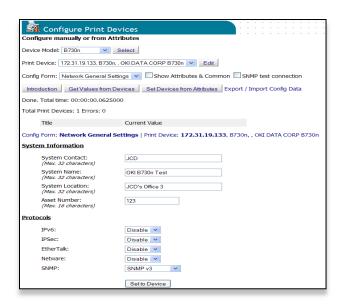
Configuration settings can be made on a device by device basis or by cloning a selected configuration and sending it to a fleet of devices at one time.

Note: There are two areas within PSV where remote device configurations can be made: Tools / Configure Print Devices and Tools / Configure MFP Devices. Even though the OKI MB460/70/80 are MFPs, you must use the Configure Print Device area to configure those MFP models. For all others, remote configuration is performed from the Configure MFP Device page.

Configuring Individual devices:

PSV uses the devices' embedded web page to change configuration values, therefore, when settings are made using this module, it is the same end result as making a configuration change from the device's embedded web page.

Select Tools from the main menu and Configure Print Devices



Note: The "Configure Print Devices" page is available only to Admins

Configuration Requirement: Device Web Password

Since PSV uses the print devices embedded web page to make configuration changes, it requires the embedded web page password in order to make those changes.

PSV uses the factory-default password unless an alternative value is entered when using the **Edit** feature. Click the **Edit** button next to the **Print Device** drop down menu.



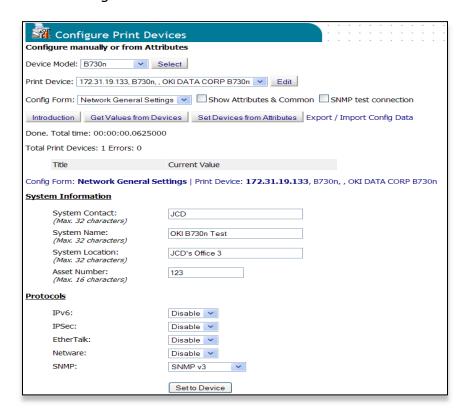
In the **Web Password** field, enter the password that your organization uses for each device's embedded web page.

Note: This setting is only needed if the web passwords have been changed from factory default. For most devices, the factory default password is "aaaaaa" or the last six digits of the device's MAC address.

You can click the verify button to see if the web password was correct. Don't forget to click the **Save** button after verification.

Obtaining Current Configuration Values from each Device:

Before making configuration changes on an individual device you may wish to view current configuration settings for that device.



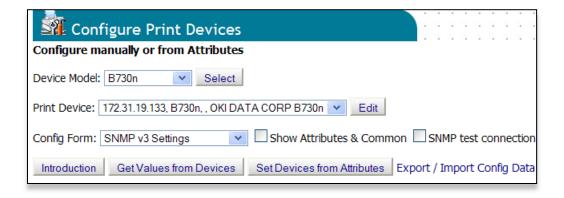
Select the print device model you wish to make configuration changes on.

The **Device Model** drop down displays a list of models that are compatible with the automated configuration feature. Only print devices in the PSV database matching the selected models in the drop down menu are able to have their configuration settings retrieved. "All Models" can be selected to read all compatible devices. Click the **Select** button after choosing a new model from the list.

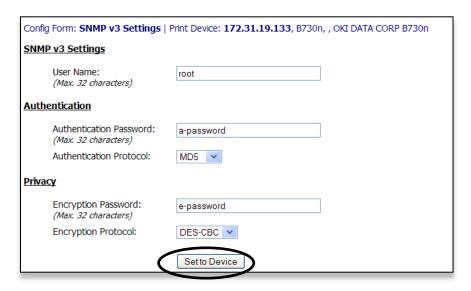
The **Print Device** list shows the individual devices in the PSV database that match the Device Model selection. You can use this to restrict configuration to a particular printer. The **All compatible** selection in the print device drop down menu extends the selection to all printers that match the selected model type.

Config Form is a group of configuration values that are similar in purpose. The Config Form selection controls which configuration values are retrieved from the device.

Select **All Forms** from the drop down menu to retrieve all available configuration values from the device. Click the **Get Values from Devices** button after you have made your selections for Device Model, Print Device, and Config Form. PSV will then connect to the appropriate devices and obtain the form values indicated.



From the list of configuration settings you can make changes to the current values by selecting a new value from a drop down menus.



Click the **Set to Device** button to send and save all configuration changes to the device.

Note: When certain networking options are changed, the device may auto restart. This is necessary for the changes to become active. A device restart will normally complete in about 30 seconds.

If the print devices are configured for "dynamic" network address (DHCP), and network servers do not reserve IP addresses, the IP address of the print device could change after the device restarts, and effectively it could become unreachable from PSV until the new address is found using the **Discovery** feature. Most of the time this is not an issue since DHCP servers typically re-assign the same IP address to a device.

Configuring Several Devices at Once:

As mentioned previously, configuration data from each print device can be saved in PSV's database to be reused later for multi-device configuration and set up. The saved configuration settings are called **attributes** and each has a unique pre-defined name recognized by PSV, i.e. "SNMPv3_Username".

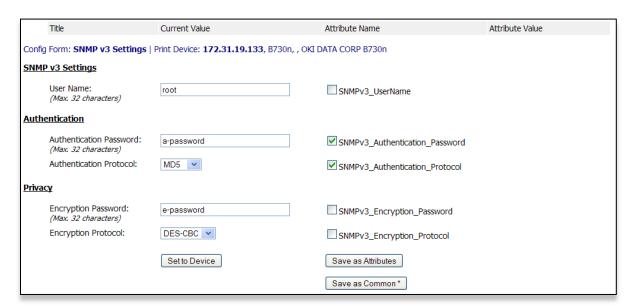
Distinct attribute values can be saved for each compatible printer. Attributes can also be saved and shared by all compatible devices. Attributes shared in this way are called **common** attributes.

The steps to configure several devices at one time are summarized below:

- 1. Check the Show Attributes & Common box
- 2. Click the Get Values from Devices button
- 3. Edit the Current Value fields and select the desired attributes to save into the PSV database by checking boxes
- 4. Click the Save as Attribute or Save as Common buttons

Saving Attributes to the PSV Database:

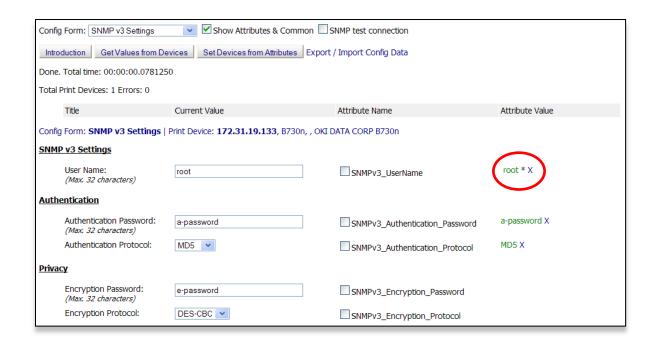
To save **Attributes** to the PSV database, enter the desired value in the Current Value fields or select the desired value from a drop down list.



Select the values to be saved by clicking the desired check boxes in the Attribute Name column. Click the **Save as Attributes** button.

Note: Clicking the **Save as Common** button saves the data as a common attribute shared by all devices.

Any attribute values or common attribute values that have been saved are shown in the "Attribute Value" column. A "*" next to the attribute name indicates it is a common attribute.



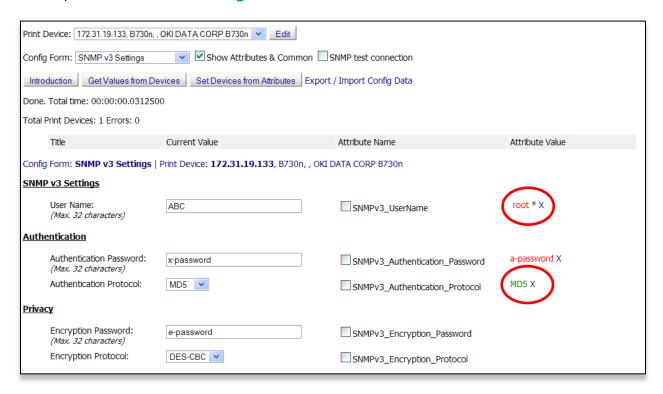
To delete a value from the PSV database, click on the "X" next to the value in the Attribute Value column.

Note that common attributes have preference over individual attributes. If both common and individual attributes are defined in the database, the common attribute will be displayed and used.

Set Values from Attributes

When the print device's configured value is different from the saved attribute or common attribute value, the database attribute value is shown in **red**.

When a print device's configured value is the same as the saved value in the PSV database, the value is shown in **green**.



Click the **Set Devices from Attributes** button to apply the attribute values in the PSV database to the selected device. The changes are applied to all devices selected in the "Print Device" list. By selecting "All Compatible", PSV will apply all attributes from the database to all devices that support the selected form.

If "All Forms" is selected for Config Form, the program will apply changes to all forms that match. If "All" is selected for both Print Device and Config Form, the program will make sure that all devices are in-sync with desired values stored in the PSV database when **Set Devices from Attributes** is clicked.

To avoid unnecessary delays, PSV first tests if the print device(s) are on the network by using SNMP protocol and provides a list with checkboxes next to addresses of matching devices. Those who respond to SNMP v1 have the checkbox checked.



Click the **Set Selected Devices from Attributes** button and PSV will apply changes only to the devices that have the checkbox checked next to the IP address.

To verify that the new values have been configured in the device, click the **Get Values from Devices** button. The attribute values should be listed in green.

Note that "Common" attributes will be visible with all devices, not just with the device selected when saved to the database.

SNMP Test Connection Checkbox:

The "Configure Print Devices" feature uses SNMP v1 to determine if the device is available on the selected network and verifies that it is the same device in the PSV database.

If the print device is configured to respond only to SNMP v3, uncheck the **SNMP test connection** checkbox, to make sure PSV is able to communicate with the print device.



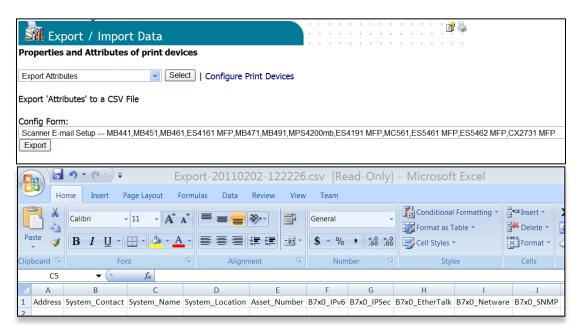
Exporting / Importing Configuration Data:

Populating the PSV database with attributes can also be accomplished by clicking the **Export / Import Config Data link**. It may be easier to first "Export Attributes" to create a template file containing the names of the attributes. Such a file can be edited in Excel or a similar tool, and then "imported" back into PSV.

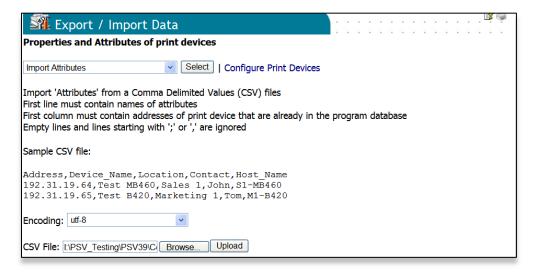


Select **Export Attributes** from the drop down. Click **Select**. Choose the appropriate **Config form** and Click **Export**. Click the **Export CSV** button.

Note: The first line of the CSV file is comprised of the PSV attributes contained in the file. The first column must be the address of the print devices (IP or DNS). Import Attributes supports a number of encoding formats.



To import a CSV file that contains a list of devices and their attributes select **Import Attributes** from the drop down and click **Select.**



Sample Configuration Exercise:

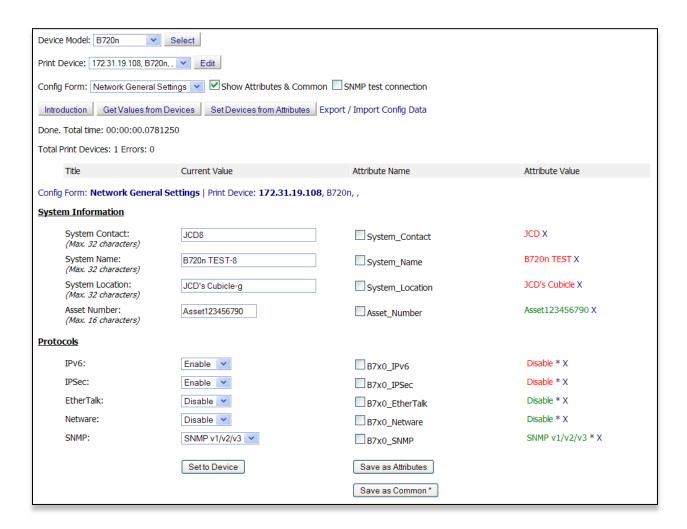
In this example the goal is to set all network protocols that are not used to disabled, and to set SNMP v3 enabled along with SNMP v1 and v2.

The first step is to select a print device. The attributes we are interested in are part of the "Network -> Basic Setup" form.

Select this form from the "Config Form" list. Make sure the "Show Attributes and Common" checkbox is checked then click "Get Values from Devices".

Next, modify the values that we want to be the same for all devices. For example, set "Netware" to Disable. Check the checkbox next to it ("B7x0_Netware") and click the **Save** as **Common** button.

Finally, click **Set Devices from Attributes** to apply the changes to the selected device. Common attributes apply to all compatible devices, so by selecting "All compatible" for "Print Device" and clicking **Set Devices from Attributes** the selected common values will be applied to all compatible devices found in the database. This feature can be used to reset device settings to desired values that have been saved to database.



Configuring Email Address Book and Fax Phone Book

For MFP devices that support scan-to-email and fax transmission, you can remotely configure the device to add or change email addresses and fax phone numbers. The configuration process to add or change email addresses or fax phone numbers is similar to the way other device properties are remotely configured.

Caution: When adding or editing email addresses and fax numbers to a device the values must be entered in a specific format, i.e. a specific syntax must be followed (see screen shot below). The syntax may differ between models so check with an OKI technical resource before attempting to add or edit these values.

Note: If the values are not entered correctly, the device will not accept the configuration changes. The top line of data is designated as the header followed by individual email addresses. In this case, the values are comma delimited.

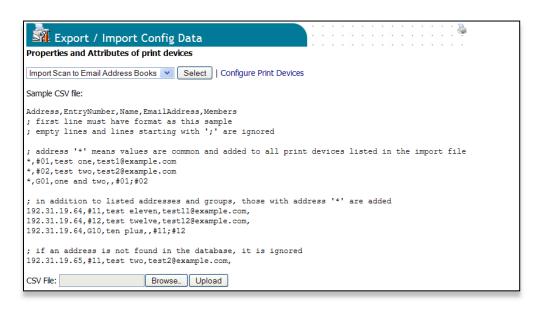


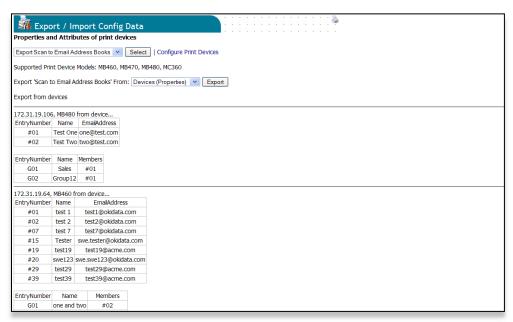
- **Step 1**: Set new values directly to the device through the embedded web page
- **Step 2**: Read the current values from the device clicking the **Get Values from Device** button
- **Step 3:** Save the attributes as regular attributes or common attributes by clicking the appropriate button
- **Step 4**: Save the attributes to each device by clicking **set the device**

Exporting / Importing Email Address Book and Fax Phone Book values

Like other forms, the values in the email address book form and fax phone book form can be exported to and imported from CSV files. However, there is one important difference specific to Email Address Books and Fax Phone Books: their forms can have records that are "shared" (common) among multiple devices.

For example, there may be situations where a common set of fax phone numbers need to be configured in every MFP device, and in addition, some devices require unique numbers aside from the common set of numbers. This is achieved by "merging" records that have a "*" in the address column to all devices in the CSV file. Such a merged list is saved to PSV's database to be applied to individual devices.





Configuring Scan Profiles:

Many OKI MFPs have the ability to use "scan profiles" which instruct the device to send scanned documents to shared folders, FTP and HTTP resources.

Scan Profiles can be created and configured from the device's embedded web page one device at a time or by using PSV to configure many devices at one time.

Configuring Scan profiles are performed in much the same way in PSV as configuring other device properties.

There are 2 different methods available to configure Scan Profiles using PSV:

1) The "Common Attributes Template" method

A simple configuration starts by configuring a target MFP device with the desired configuration through its embedded web page. PSV can then be used to obtain the configuration from the target device by reading it and saving it to the PSV database. The configuration template can then be modified as needed and applied to another MFP device, a group of devices, or all compatible devices.

This method is practical when all devices need to have the same set of profiles and only requires optional destination folders for each device or a different destination share server address.

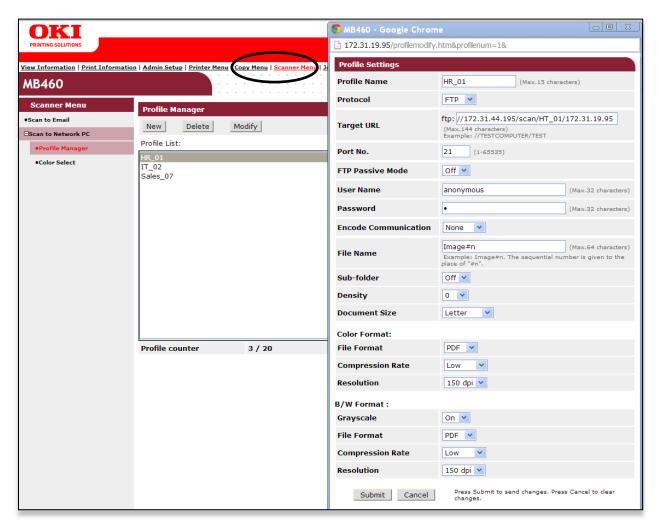
2) "Exporting / Importing Scan Profiles" from CSV

In some cases, MFP devices need to share the same scan profiles but also need unique profiles specific to each individual device. In such cases PSV can "Export" Scan Profiles from one or multiple MFP devices, allow the user to edit the profile in another application such as Excel, import it back into the PSV database and apply to all compatible MFP devices.

Method 1: The "Common Attributes Template" method

The first step to method 1 is to configure a Scan Profile on a target device by accessing and using the devices embedded web page. Login to the device web page with username: root and default password: aaaaaa.

Select Scanner Menu, click Scan to Network PC, click Profile Manager, click New or Modify (New to create a new profile, Modify to edit an existing one).



Make appropriate changes to the profile setting page (displayed on the right side of the split screen above) and click **Submit.**

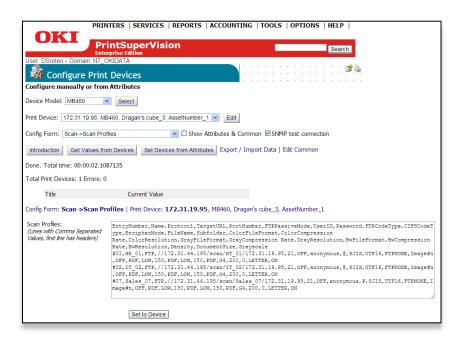
It's useful to try using a scan profile after creating or editing it to make sure it works as expected before applying the same or similar configuration to many other MFP devices using PSV.

Getting and Setting a Scan Profile to one MFP device:

The second step is to acquire the scan profile configuration values from the target machine using PSV. In this example the scan profile values will be applied to one device. The next section will describe applying the values to many devices.

Return to the **Configure Print Devices** page: Click **Tools,** click **Configure Print Devices,** and select an MFP model type from the **device model** drop down.

Select an individual device from the **Print Device** drop down. From the **Config Form** drop down, select the **Scan-> Scan Profiles** form. Click the **Get Values from Devices** button.



If any changes to the profile are required, make them now. After making changes, click the **Set to Device** button to send the configuration values to the device selected.

Note: The first row of text includes names of fields. Each profile starts with number: #nn

Configuring Scan profiles to several devices:

Before describing how to apply a scan profile to many devices, a short discussion on common attributes is needed.

Common Attributes for MFP Scan Profiles

When multiple devices are sending scan files to the same (FTP or CIFS) share server, it is usually required to have those files saved in separate folders: first to make sure files with potentially same names do not override other files and second to be able to know which MFP devices have sent the file to the server.

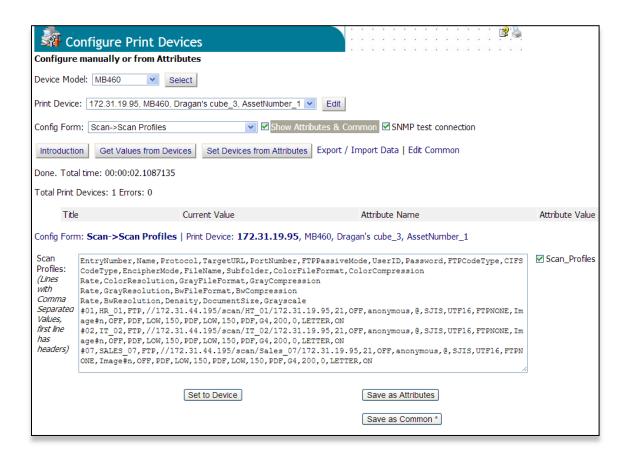
A very simple method to achieve this "unique folder for each MFP device" is to:

- Get current Scan Profiles from an already configured MFP device
- Modify the profiles to add template {Markers} in the CSV text and save it as a Common Attribute
- Then select a group of devices or all compatible devices and click **Set Devices** from Attributes.

Return to the Configure Print Devices page by clicking Tools / Configure Print Devices.

Obtain the Scan Profile values from the target MFP device that you previously configured using its embedded web page.

Select an MFP model type from the **device model** drop down. Select an individual device from the **Print Device** drop down. From the **Config Form** drop down, select the **Scan-> Scan Profiles** form. Check the **Show Attributes and Common** checkbox and click the **Get Values from Devices** button.



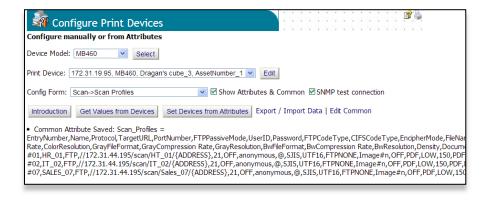
The original Scan Profile values will look like this (trimmed for clarity):

```
EntryNumber,Name,Protocol,TargetURL,PortNumber,... #01,HR_01,FTP,//172.31.44.195/scan/HT_01/172.31.19.95,21... #02,IT_02,FTP,//172.31.44.195/scan/IT_02/172.31.19.95,21,... #07,SALES_07,FTP,//172.31.44.195/scan/Sales_07/172.31.19.95,21,...
```

Please observe "TargetURL" field starts with address of server (172.31.44.195), and the destination folder includes address of MFP device (172.31.19.95). The goal is to make this URL unique for each device, so we modify the CSV text to:

```
EntryNumber,Name,Protocol,TargetURL,PortNumber,... #01,HR_01,FTP,//172.31.44.195/scan/HT_01/{ADDRESS},21... #02,IT_02,FTP,//172.31.44.195/scan/IT_02/{ADDRESS},21,... #07,SALES 07,FTP,//172.31.44.195/scan/Sales 07/{ADDRESS},21,...
```

Make sure the Scan Profiles checkbox is checked and click the **Save as Common** button. This will save data to PSV's database as a generic template, where {ADDRESS} marker will be replaced with the actual address of each MFP device.



Select another device from the list, and click the **Set Devices from Attributes button**



This will obtain a "Common" template from the PSV database, replace {ADDRESS} marker with actual address of selected MFP device (in this case `172.31.19.57'), and apply a new value to the selected device.

Select "All Compatible" devices and apply, and they will all be configured.



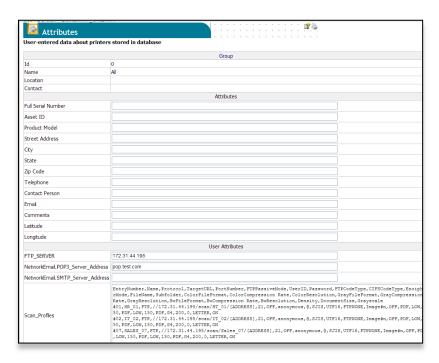
Besides {ADDRESS}, the system supports {NAME} and {LOCATION} properties, and any other attribute that can be assigned to print devices as described in previous sections of this document.

Editing Common Scan Profiles and Attributes

To modify a Common Scan Profile template, click on **Edit Common** link.



Expand text box next to "Scan_Profiles", edit CSV text, and click Save.



Note: that "Common Attributes" can include any name-value pair. You can add at the bottom of the form both new name and value and save. In this case we have added "FTP_SERVER" attribute, with value "172.31.44.195". Now, we can make our Common * Scan profiles even better, replacing the address of server with {FTP_SERVER} marker in the CSV text.

```
EntryNumber,Name,Protocol,TargetURL,PortNumber,...
#01,HR_01,FTP,//{FTP_SERVER}/scan/HT_01/{ADDRESS},21...
#02,IT_02,FTP,//{FTP_SERVER}/scan/IT_02/{ADDRESS},21,...
#07,SALES_07,FTP,//{FTP_SERVER}/scan/Sales_07/{ADDRESS},21,...
```

The first benefit is that we can now change the address of the FTP server in only one place. The second is that we can have the FTP_SERVER individually assigned as an attribute for each print device, and imported to the PSV database as described in previous sections of this document.

Exporting / Importing Scan Profiles from CSV:

The second method to configure scan profiles for a fleet of similar devices is by creating a CSV file with the configuration parameters and importing it to CSV and applying the changes to the devices.

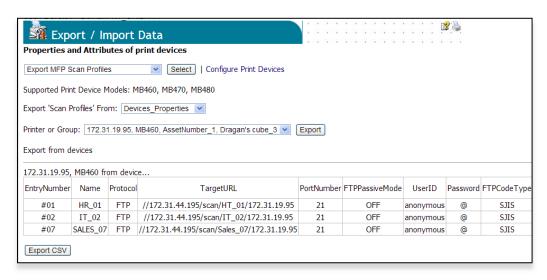
In some cases there is a need to have different Scan Profiles for each devices, not only different folder, server, or scan option. There could be some common scan profiles that should be applied to all MFP devices, and then individual scan profiles for each MFP device as desired. This can be done by using "Export / Import Data" tool, "Export Scan Profiles" and "Import Scan Profiles" options.

This technique provides complete control, flexibility and efficiency, but it does require some additional effort to prepare and manage CSV text files with Scan Profiles.

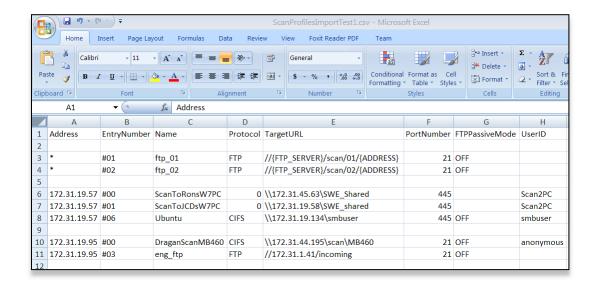
As in a previous example, the first step is to manually configure Scan Profiles on one or more template MFP devices by using the embedded web app on those devices. Then select

Tools => Export / Import Data

- -> [Export MFP Scan Profile], [Select]
- -> [Device Properties\], [Printer or Group\], [Export]
- -> [Export CSV], and [Save]



The resulting CSV file can be edited by any text editor, or by Excel or similar tool.



The rows that have a '*' in the 'Address' column will apply to all devices that do not have Scan Profiles with same 'EntryNumber' already defined.

Please observe that rows are trimmed for clarity:

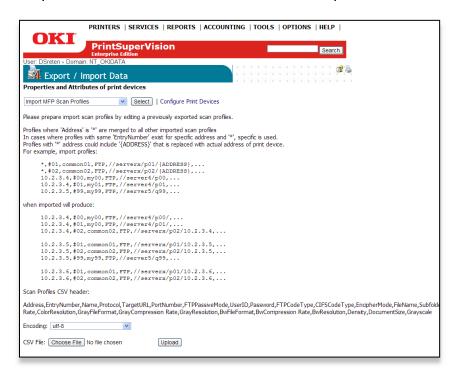
```
Address, Entry Number, Name, Protocol, Target URL, Port Number, ....
*,#01,ftp_01,FTP,//{FTP_SERVER}/scan/01/{ADDRESS},21,....
*,#02,ftp_02,FTP,//{FTP_SERVER}/scan/02/{ADDRESS},21,....
172.31.19.57,#00, ScanToRons W7PC,0,\\172.31.45.63\SWE_Shared,445,....
172.31.19.57,#01, ScanToJCDs W7PC,0,\\172.31.19.58\SWE_shared,445,....
172.31.19.57,#06, Ubuntu, CIFS,\\172.31.19.134\smbuser,445,....
172.31.19.95,#00, Dragan ScanMB460, CIFS,\\172.31.44.195\scan\MB460,21,....
172.31.19.95,#03, eng_ftp, FTP,//172.31.1.41/incoming,21,....
```

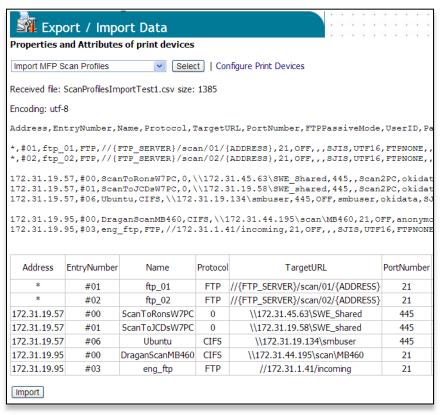
In this case Scan Profile #02 for device `172.31.19.57' will be *,#02,ftp_02,FTP,//172.31.44.195/scan/02/172.31.19.57,21,...

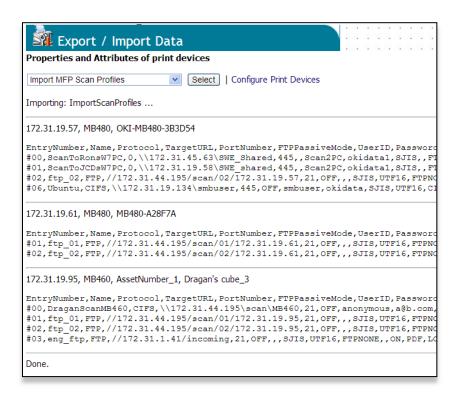
The profile #01 will be as defined for specific device, not from Common, as well as #00 and #06.

```
In this case Scan Profile #02 for device `172.31.19.95' will be *,#01,ftp_01,FTP,//172.31.44.195/scan/01/172.31.19.95,21,... *,#02,ftp_02,FTP,//172.31.44.195/scan/02/172.31.19.95,21,...
```

Data can now be imported from CSV text file to the PrintSuperVision database







Now that the values are stored in the PSV database, you can use the "Configure Print Devices" feature as previously described and use **Set Devices from Attributes** to save to individual devices, to a group of devices or all compatible devices.

Configuring MFP Devices

MFP devices, such as the OKI MC561 and MB491 provide many options when scanning documents. One option is the use of "Scan Profiles". For a user of MFP device, Scan Profiles appear as list of names on LCD menu after pressing "Scan" button and selecting "Network PC" menu option. After pressing "Start" button MFP scans a document with preconfigured options, and sends it to a (file) server on pre-configured location, and with preconfigured filename.



Since files can be sent to the same file server from multiple MFP devices, with multiple "Scan Profiles", it is important to be able to recognize the purpose and origin of the scanned file by its filename.

In an Enterprise network there could be many MFP devices that need to be configured and managed. This is where the PrintSuperVision "Configure MFP Devices" tool is useful, since it provides an efficient way to configure Scan Profiles on a large number of compatible OKI MFP devices by a "one button click".

To make filenames from devices different, Scan Profiles in each device can be configured to indicate location of the MFP device. PSV admin can configure a "Template" for Scan Profiles that is the same for all managed MFP devices, and it gets adjusted for each device based on data from the database. For example, a new employee may be required to sign and send an "HR-Form1". Resulting filename can be "**HR-Form1_Store-123_052912133702.pdf"**, where "HR-Form1" is for profile, "Store-123" is for location of MFP, and date-time makes filename unique: 052912 is May 29, 2012, 133702 is 1:37:02 PM.

How to use the PSV tool to automate the process is described in this section.

Scan Profiles:

Scan Profiles are a collection of settings that the device uses when one or more documents are scanned. The settings define things such as the resolution and format of the scanned image and the location where the scanned file will be copied to. A user can then select a Scan Profile from the device's control panel, and the settings defined for that profile are used when scanning. A user can enter the desired scan options each time he or she uses the scan function, but this would be a slow process. It is better to configure the device with Scan Profiles and let the user select from the available choices.

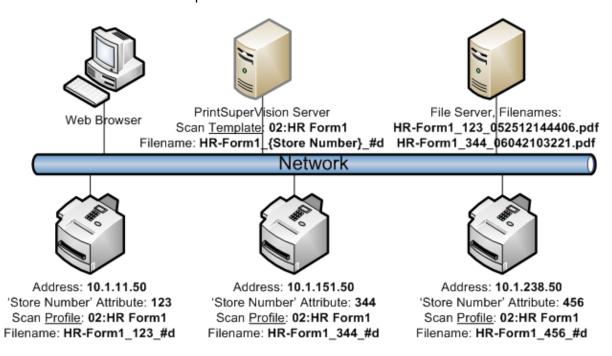


PSV's Enterprise Edition provides a tool for configuring Scan Profiles.

This tool is most useful when profiles need to be established on a large number of MFP devices connected to a network. PSV can be used to "push" Scan Profiles to a large number of devices.

The system can have a 'Scan Template' that can be applied to all compatible devices with a single button click.

- **Scan Profiles** are configurations in MFP devices used for scanning and sending to server.
- Attributes are descriptions of print and MFP devices in the PSV database
- Scan Templates are shared descriptions of scan profiles saved in the PSV database. Scan Templates can include Attributes.



Using PSV to Configure MFP Devices:

The main reason for using the 'Configure MFP Devices' tool is to configure Scan Profiles in a large number of network MFP devices. However, it can be used to configure individual devices as well.

The tool is accessed by selecting **Configure MFP Devices** from the **Tools** menu.



Interactive Configuring of Scan Profiles

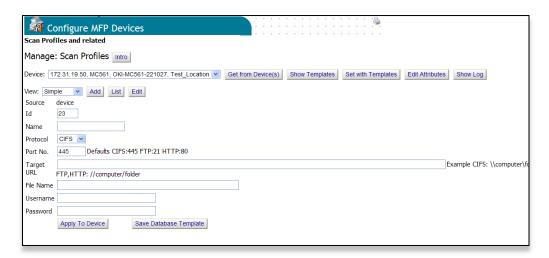
OKI MC561 and MB491 devices support up to 99 Scan Profiles. Each profile is numbered from 01 to 99.

To set up Scan Profiles in a particular device, select the device from the dropdown list and click the **Get from Device(s)** button.

The Scan Profile settings are displayed as a table. The settings displayed depend upon the selection of the View dropdown list. "Simple" displays only the most important profile settings. "Advanced" shows all of the settings associated with the profile.

Adding a Scan Profile

You can add a scan profile to a particular device by clicking the **Add** button when that device is selected in the Device dropdown list. Provide the desired values for the various settings. PSV automatically provides the next available Id. Click **Apply To Device** to add the new profile to the device.



Editing and Deleting a Scan Profile

You can make changes to a scan profile by clicking in the Id column of the profile you want to change. The settings shown depend upon the selection of the View dropdown list. When working in the Advanced view, it is assumed the user has an understanding of what each option represents. Not all combinations of profile values are acceptable. For example, FTP encoding options are not applicable with the HTTP protocol. In some cases the program will automatically adjust obvious mistakes. In other cases, the MFP device may reject a wrong combination of options.

After making any changes, click the "Apply To Device" button. This will save the Scan Profile back to the device. PSV does not save device scan profiles in its database. You can delete a scan profile by clicking the "Delete From Device" button.



Scan Destination: Share Folder or a Server:

Scan Profiles may specify a server or shared folder that needs to be configured separately. Please make sure to correctly configure security access rights, including username and password as applicable. The available protocols are:

- CIFS: Windows Sharing
- FTP: Windows IIS (Internet Information Server) support it; In case of "anonymous" access FTP server still expect username "ftp" and password that includes character "@" like in email address.
- HTTP: Be aware that IIS 7 or newer (Windows 2008 and Windows 7) do not support "anonymous HTTP PUT" so Username and Password must be provided.

Make sure to enter correct port number for the selected protocol. Default choices are provided next to "Port No." field on the form.

Using Scan Templates:

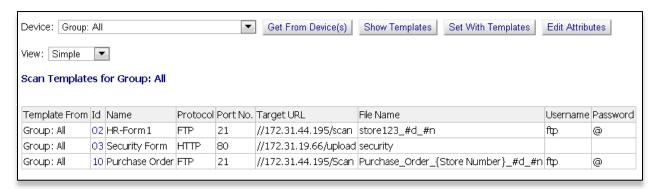
Scan **Templates** can be used to save scan profile settings to the PSV database. A scan template can be associated with a particular device or a group of devices. When the template is a device template, it essentially provides a way to save an individual scan profile to the database. It is when a template is a group template that it becomes more useful from a configuration standpoint. When a group template is used it gets applied to all compatible MFP devices in that group. This allows you to easily configure the same scan profile to a number of devices.

Adding a New Scan Template:

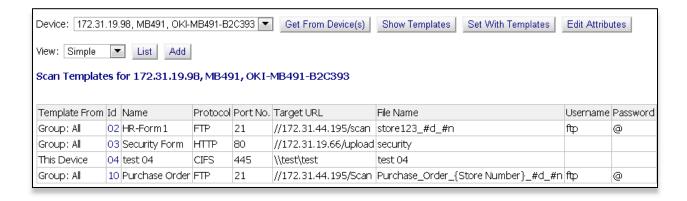
To add a scan template, select an individual MFP device or printer group from the Device dropdown list and click the "Add" button. If the "Add" button is not shown, click "Show Templates". If an individual device is selected, then the template created is a device template for that particular device. If a printer group is selected, then the template created is a group template for that group. Provide the desired values for each setting. When you have made all of your changes, click the "Save Database Template" button **instead** of the "Apply To Device" button.

Editing Scan Templates:

Editing Scan Templates is very similar to editing Scan Profiles. One visual difference is the addition of the 'Template From' column shown before 'Id' column. This column indicates if the template is a device or group template. Both device and group templates apply to individual devices. This column distinguishes between the two. Only group templates will be shown for a printer group.



In the following example, Scan Template with Id '04' is assigned to this one individual MFP devices, and other three templates ('02', '03', '10') are from 'Group: All'. That is they apply to the selected device and to all compatible MFP devices.



Applying Scan Templates

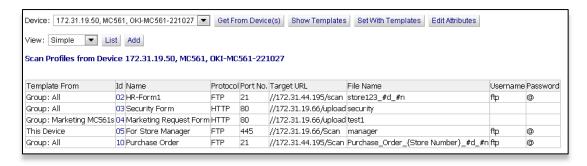
For the scan settings represented by a scan template to be used by a particular MFP device, the scan template must be applied to that device. To do this:

- 1. Select the individual device or printer group where the template has been saved from the Device dropdown list.
- 2. Click in the Id column of the template you want to apply.
- 3. Click the "Set with Templates" button. If a device template is selected, only that device is updated. If a group template is selected, the template is applied to all devices in that group.

Once the program has completed this, you should see a new profile for each device where the template was applied. You can confirm this by selecting a device from the Device dropdown and clicking the "Get from Device(s)" button.

Hierarchy of Group Templates

Besides the default group 'Group: All', devices can be organized into any number of groups. This allows printers to be grouped by region or department for example. Scan Templates can be assigned to those groups, and then applied to each printer in the group. In next example, Scan Template '04' is defined for 'Group: Marketing MC561s'. It applies to all compatible devices in that group. Care should be taken so that all templates have a unique Id. When there are scan templates with same "Id" assigned to both group and individual device, the template for the group is used. This is to make sure that common templates are always visible on all devices in the group, and avoid accidental "hiding" of common templates.



Using PSV "Attributes" to Customize Scan Templates:

Scan Templates allow you to establish the same scan profile in a number of MFP devices. However, there may be cases when you want a part of the scan profile to be different for each device. You could set up a different scan profile for each device, but this would be time consuming to implement and configure. The "Configure MFP Devices" tool allows you to use PSV "Attributes" as part of a scan profile.

PSV Attributes are named values that are assigned to individual print devices and saved in the database. For example, each device can have an attribute named "StoreNumber" that a company uses to identify individual store locations. PSV Attributes can be included in interactive reports, email alerts, and in tools such as "Configure MFP Scan Profiles".

Here's how it works:

In a Scan Template, a special marker with attribute name inside of { } can be used. When the program finds these characters, it tries to find an Attribute with the same name for the device the template is being applied to. If such an attribute exists, then the program replaces the attribute name with the attribute value. This new value is used when setting up the profile for that device. The profile is customized to the device even though the same scan template is used.

'Address', 'Name' and 'Location' are standard attributes. The values for these come directly from the MFP device. They do not need to be entered by the user.

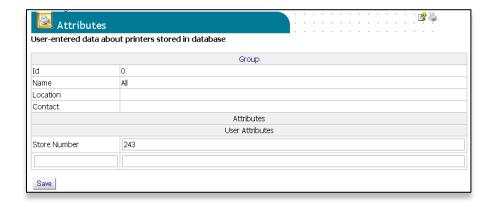
For example, a Scan Template can have a Filename set as:

"Order_{Address}_{name}_#n". When this template is applied to a device with Address "192.168.1.100" and name "OKI-MC561-221037", the Scan Profile created in the device will have Filename setting "Order_192.168.1.100_OKI-MC561-221037_#n". The Address attribute has been replaced with the IP address of the device. The Name attribute has been replaced with the actual name of the device. The "#n" is replaced by MFP device with number of scan (to make filename unique) at the time of scanning.

Another example, stores may submit a daily sales summary. A scan template can be set up so that all stores use the same FTP site. The Filename setting can use an attribute so that the name of the file created indicates the store the report is from. The Filename field in the template can have the value

"Sales_{StoreNumber}_#d". When the template is applied to a device, the program will try to use the attribute "StoreNumber" for that device. The names of the scan file created by different MFP devices will all have the correct store number in the filename making it easier to identify the source of the file.

Editing and viewing of Attributes can be accessed from "Configure MFP Devices" by clicking the "Edit Attributes" button. Be sure any attribute name you use in a scan template match exactly the actual attribute name.



Attributes can also be imported from a CSV file, from "Printers | Import Printers and Attributes" tool.

Date/Time and Document Number in Filename:

To help make each scan file name unique, MFP device can insert current date/time and scan number to each scan file. For example, 'Filename' can be defined in Scan Profile as 'SalesSummary_100_#d_#n'

#d is replaced by current date/time by the MFP device when scanning.

#n is replaced by a number that increments for every scan, to form a unique filename.

Using the previous example, a scan document created by an MFP device would have a filename like "SalesSummary 100 052912133702 00001.pdf".

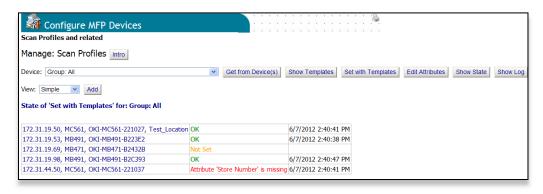
The date/time in the filename is encoded by MFP device as "MMDDYYhhmmss".

The date in the example is "29-May-2012 01:37:02 PM".

Show State:

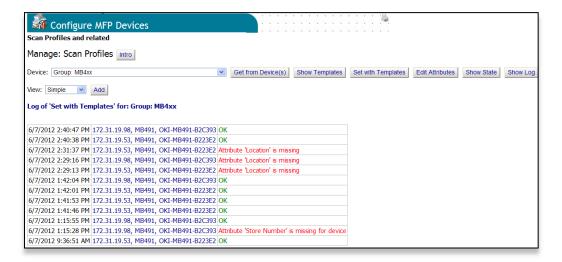
The tool keeps track of all 'Set with Templates' actions, with date and status. By selecting a device or group and clicking "Show State", you get the current configuration state of selected devices. "OK" indicates success. "Not Set" means the device was not responding at the time configuration was tried. If configuration failed, the error is displayed in red.

The 'address, name, location' is a link to an individual device. It is a convenient way to directly access a device to configure it again, view current configuration, or edit attributes.



Show Logs

Click on "Show Logs" button presents a list of attempts to configure devices in the selected group.



Using a Scan Profile from the MFP device's Control Panel

- Press the "Scan" button.
- Select "Network PC" using the up and down arrows on the control panel.



- Press the "OK" button.
- Use the up and down arrows on the control panel to select "Select Profile" from the menu. Then, press the "OK" button.



The Profile List will be shown.



- Use the up and down arrows to select the desired Scan Profile.
- Press the "Start" button on the control panel to start scanning.
 The scan file is sent to configured file server

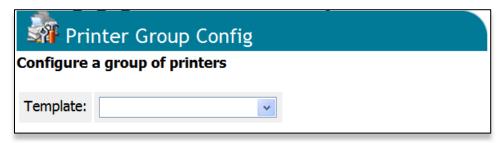


Group Configuration

Only available in the PSV Enterprise edition, Group Configuration is a more advanced way to configure devices remotely by using the parameters from one device to configure a group of similar devices.

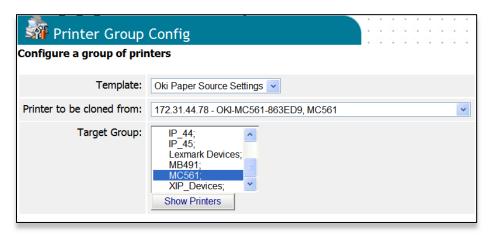
Group configuration uses an XML file as a "Template" to remotely set up groups of devices. Currently there are 4 sample templates included with PSV.

To use Group Configuration: Click **Tools** from the main menu and click **Printer Group Config** from the drop down box.



- 2. Select a template from the drop down menu.
- 3. Select the Target Group of devices that will receive the new configuration.

For a list of devices in each group click **Show printers**. Select the devices that will receive the configuration by clicking the check boxes in the **Select** column.



The "paper source" configuration from the origin device can be modified before applying the configuration to the group selected.

4. Make desired configuration changes and click Apply.

There are other sample Group Configuration templates provided that perform various tasks.

Configuring Static IP Address

PSV Enterprise Edition includes a tool for automating the configuration of IP addresses. It is accessible from the main **Tools** menu.

It is frequently requested to configure a print device to use a static IP address, by using some "address scheme". Typically, printers have "fixed last octet" inside of a subnet.

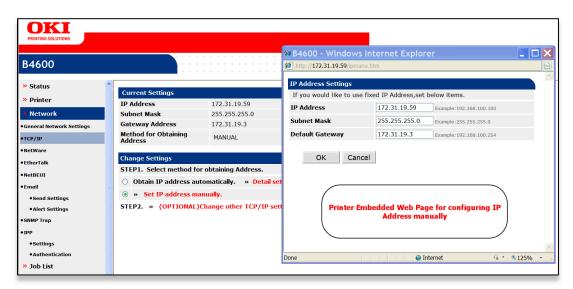
This tool helps find matching printers inside of selected subnets, detects current configuration of IP address (static, dynamic), and allows changing from dynamic to static and vice versa.

The tool makes it possible to configure all (compatible) devices with the parameters as per policy, as well as to configure individual devices with desired values. The tool can be used to re-configure all devices to desired default values with one mouse click. Specific examples of how this feature can be used are:

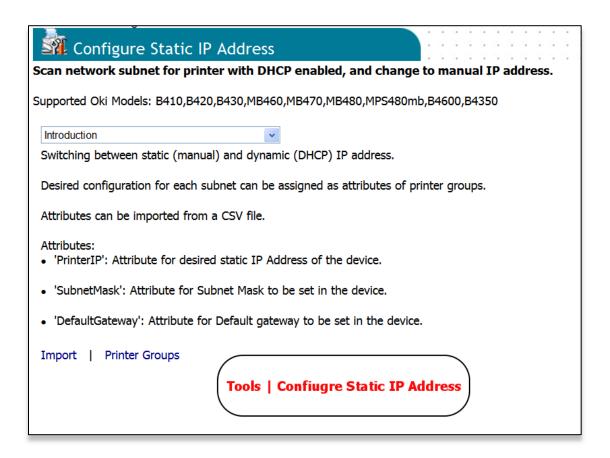
- Configure One: Gateway, Subnet Change IP configuration parameters for one device at a time. The parameters available are: Static or Dynamic IP Address (DHCP disabled or enabled) selection, Gateway address and Subnet mask.
- Fix many: Gateway, Subnet Change Gateway address and Subnet mask to desired value.

Configure Static IP Address:

This tool helps to automate the configuration of gateway address and subnet mask. These options can be configured manually using a browser and the device's embedded web forms. PSV helps automate the configuration of such options.



The "Configure Static IP Address" page is available only to members of the PSV "Administrators" group. It is accessed by selecting "Configure Static IP Address" from the Tools menu.



This tool can help you configure print devices to desired static IP addresses in each network subnet. A typical situation is:

- There is one print device of desired type in each network subnet,
- When connected to network the device gets a new dynamic IP address assigned i.e. from DHCP
- Expectation is that the print devices have predictable static address within of each subnet, to be used for configuring print queues

Here are few key concepts to help understand using the tool:

- All PSV data are stored in a database
- PSV organizes printed devices in "**printer groups**". Each print device can be a member of multiple printer groups.
- Discovery of print devices is done for a range of IP addresses, called "subnet"
- A subnet can be associated with a printer group, so when a print device is discovered in a subnet it is automatically added to the printer group
- Each printer device and printer group can have "attributes" associated with it.
 Those are the name/value fields provided by PSV users and stored in database.
- Addresses of printed device as well as printer groups and subnets can be "imported" from CSV files, along with related attributes, and saved into database.
- Attributes as well as other data can be edited by PSV admin by using a web browser.

PSV "Configure Static IP Address" tool ("Tool") can:

• Discover print devices in a subnet

- Inspect them for current configuration
- Find printer group associated with the subnet
- Read desired static IP address for the subnet from the database as an attribute of associated printer group
- Configure print device to desired static IP address
- Update the database with new IP address of the device

The tool can also inspect previously discovered devices that are already in the database, and update them based on attributes of related printer groups.

Getting Prepared:

Formulate a schema for setting IP address of connected network printers in each location. For example, the last octet of the subnet address of all printing devices will be 23 and it will have static IP address.

Select the list of printers that need to be configured to the static IP address. If PSV is already used to discover and monitor the devices, use PSV Printers List and Printer Groups to create a list.

Preparing the CSV file:

Create a CSV file, which lists down the address range (referred to as subnet), in which Printer Model is to be searched.

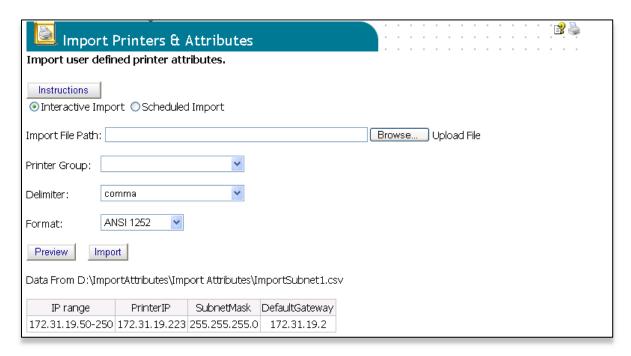
4	А	В	С	D	Е	F
1	IP range	PrinterIP	SubnetMask	DefaultGateway		
2	172.31.19.50-250	172.31.19.223	255.255.255.0	172.31.19.2		

The first row must be the header row (case sensitive) and should contain the names for all attributes that are to be imported. A short description of the attributes **required** for configuring device settings follows:

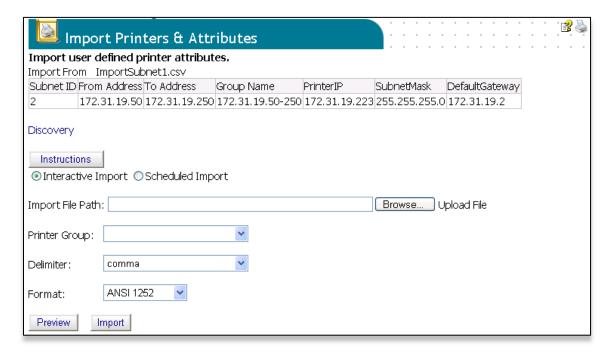
- "IP range": Defines the IP address range for a subnet. It is also used as name of the printer group associated with the subnet. The last octet contains the start (including) and end (including) addresses in the range. For example: 172.31.19.50-250 means from address 172.31.19.50 to address 172.31.19.250.
- "PrinterIP": Attribute for desired static IP Address of the device. This value should be complete, for example: 123.45.67.89
- "SubnetMask": Attribute for Subnet Mask to be set in the device, for example: 255.255.255.0
- "DefaultGateway": Attribute for Default gateway to be set in the device.

Importing a CSV file to create Subnets in PSV:

- Launch PrintSuperVision from a browser
- Login as Administrator. Default username is: "admin" and default password is: "password".
- Navigate from Menu: **Printers** to **Import Printers and Attributes**.
- Click the **Browse** button and specify the path to the Import file in csv format. Click **Preview**, to see the contents of the file in tabular format.



• Click "Import", to start Importing of subnet.

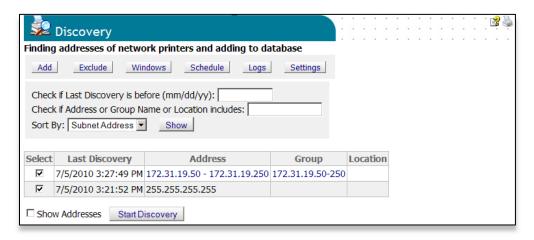


During import, PSV will add a subnet for each row in the csv. The range of IP addresses for this subnet will be derived from the value of the "IP range" field in the csv file.

PSV will also add a Printer group to correspond to the subnet. The name of the Printer group will be taken as the value specified for "IP range". All other fields specified in csv file will be added as attributes of this Printer group.

Discover printers in the subnets:

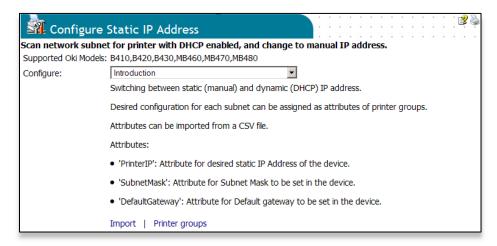
Click on the Discovery link that appears on the page after subnets were imported, or from the menu. Navigate to **Printers** then to **Discovery**. Click the **Start Discovery** button. This will discover all printers present in the subnets.



Configuring PSV for IP Address Configuration

From the main menu, navigate to **Tools**, then to **Configure Static IP Address**. This page provides the tool that helps find matching printers inside of selected subnets, detects current configuration of IP addresses (static, dynamic), and allows changing from dynamic to static and vice versa.

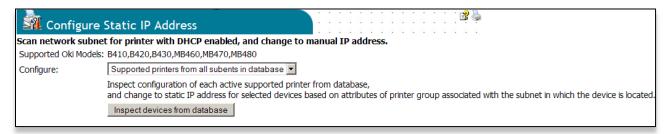
The **Configure** dropdown menu on the page lists the manner in which this tool allows Configuration of supported devices.



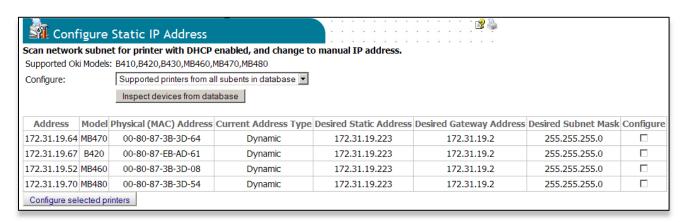
The following options are provided:

- <u>Introduction</u>: Gives a brief description of tool and provides link to "Import" for importing CSV files and "Printer group" to Edit the attributes.
- <u>Supported printers from all subnets in database</u>: Inspect configuration of each
 active supported printer from database, and change to static IP address for selected
 devices based on attributes of printer group associated with the subnet in which the
 device is located.
- **<u>Discover single subnet</u>**: Discover compatible devices in selected subnet; for selected print device inspect current configuration; change configuration of selected device. Configuration settings can be assigned manually or accepted from attributes of the printer group.

Configure Supported Printers from all subnets in database:



Clicking **Inspect devices from database** button tells PSV to inspect all compatible printer devices that are already in the database. Details of printers in subnets are displayed in the table as shown below.

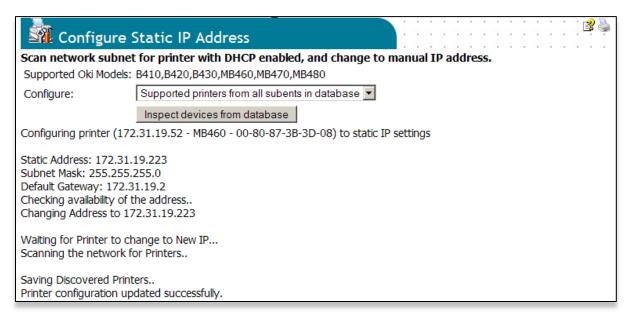


The following is a description of a few columns in this table.

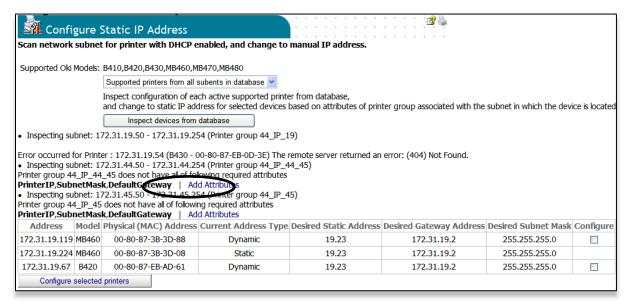
- **Current Address Type**: Current value of address type (Static/Dynamic) as retrieved from web page of the device is displayed here.
- **Desired Static Address**: If selected for configuration, this is the static address at which printer will be placed. Value for this field is retrieved from the printer group attribute "PrinterIP".

- **Desired Gateway Address**: If selected for configuration, this will be Gateway Address. Value for this field is retrieved from the printer group attribute "DefaultGateway".
- **Desired Subnet Mask**: If selected for configuration, this will be Subnet Mask. Value for this field is retrieved from the printer group attribute "SubnetMask".
- Configure: User is allowed to select printer(s) to be configured, using the checkbox in this column.

After selecting printer(s), when user clicks "Configure selected printers", the tool initiates configuring address settings for each of the selected printers, showing progress on the page.



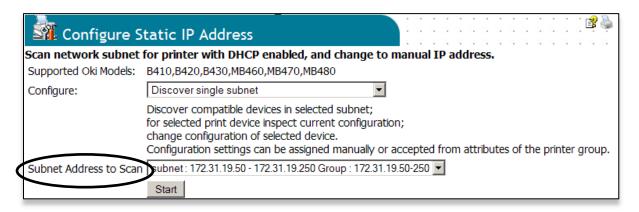
If the group does not have the desired attributes, PSV detects it, and provides a link to Add Attributes:



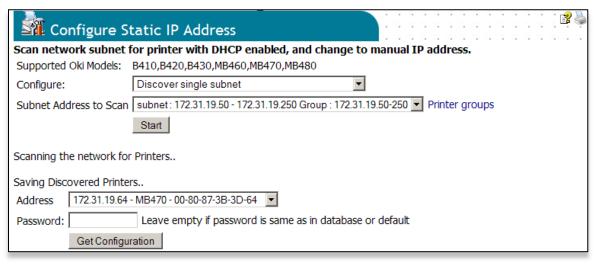
Click **Add Attributes** to edit the attributes, and click **save**.

Discover single subnet:

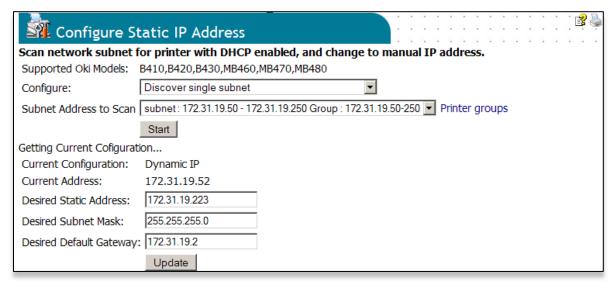
When a user selects the Configure option for "Discover single subnet", the following page will be rendered.



The "Subnet Address to Scan" dropdown provides a list of all subnets, including those that were imported from a CSV file. Clicking on the **Start** button will initiate discovery of matching print devices in a selected range of addresses for the subnet.



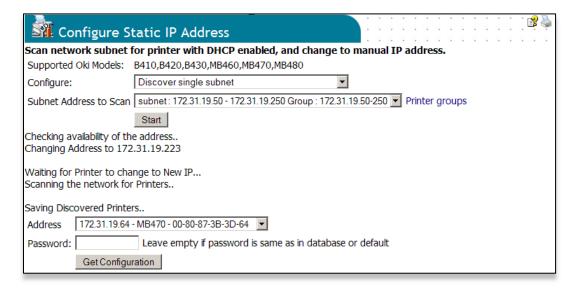
Compatible print devices are presented as a drop list. The **Get Configuration** button will display current configuration of selected devices (static/dynamic).



The "Current Configuration" of a device is retrieved from the printer's web page. If current configuration is Dynamic IP, the page shows desired configuration settings for changing to static IP configuration.

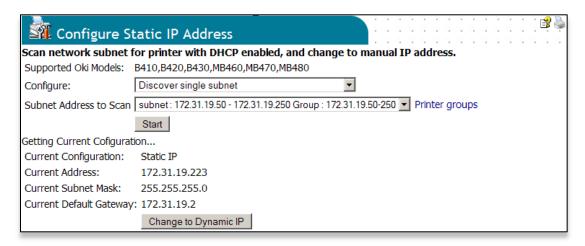
- **Desired Static Address**: Default value for this field is retrieved from the printer group attribute "PrinterIP".
- **Desired Gateway Address**: Default value for this field is retrieved from the printer group attribute "DefaultGateway".
- **Desired Subnet Mask**: Default value for this field is retrieved from the printer group attribute "SubnetMask".

Note: If the printer group associated with the subnet does not have values for these attributes, default values for desired settings will be populated from those specified in the device web page. Clicking the **Update** button tells the program to check availability of the address, then goes for setting new address, and discovering devices on the selected subnet, to update printer in database with new address.

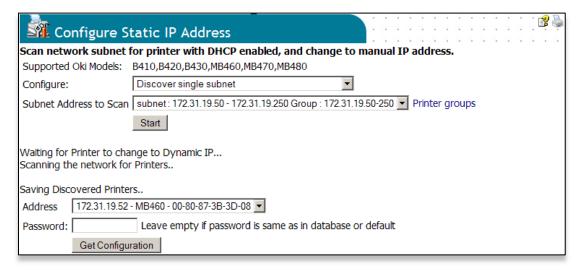


Configure Dynamic IP

When current address is "static", the tool provides an option to "change to dynamic IP".



When selected, this changes the configuration of the device, and then starts re-discovery of the selected subnet to find a new address of the device assigned by DHCP.

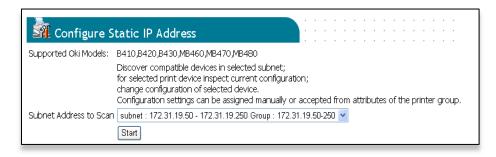


Configuring Static IP Addresses:

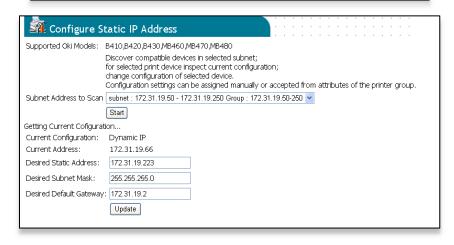
For technicians (non-PSV Admins) who are installing or replacing printers onsite a separate tool is provided called the "config static address tool". The tool is a subset of features, (or a part of) the "Public Web Site" feature configurable from the PSV Setup tool.

This "public" web tool can only discover addresses on local subnets where the web browser is coming from, and it can only change an address from dynamic to static address as indicated by the user attributes that were imported from CSV file.

It works the same as the full-featured tool, but it does not have standard PSV menus. In addition, this tool is available as option in "Public" web site in PSV EE. Please refer to "Creating public website", for the steps to create a public web site in PSV EE.

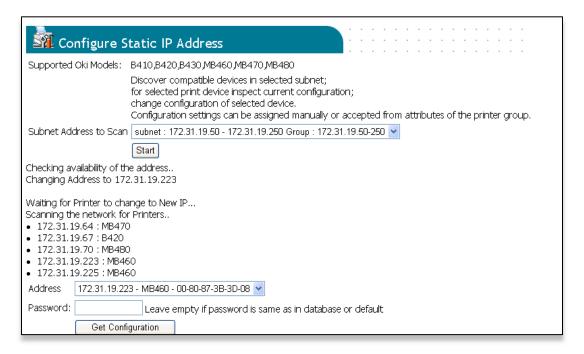


Configure S	tatic IP Address
	B410,B420,B430,MB460,MB470,MB480 Discover compatible devices in selected subnet; for selected print device inspect current configuration; change configuration of selected device. Configuration settings can be assigned manually or accepted from attributes of the printer group.
Subnet Address to Scan	subnet : 172.31.19.50 - 172.31.19.250 Group : 172.31.19.50-250 Start
Scanning the network for • 172.31.19.64 : MB470 • 172.31.19.66 : MB460 • 172.31.19.67 : B420 • 172.31.19.70 : MB480 • 172.31.19.225 : MB46	
Address 172.31.19.66 Password: Get Confi	- MB460 - 00-80-87-3B-3D-08 Leave empty if password is same as in database or default guration



Desired values are retrieved from user attributes associated with the printer group. All of the values displayed are read only, and cannot be changed by the user.

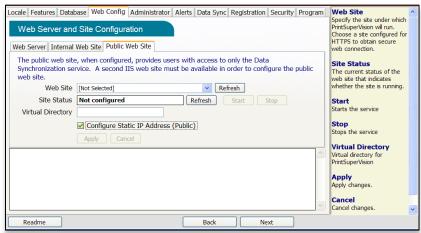
Click the **Update** button, to change printer settings to desired Address settings.



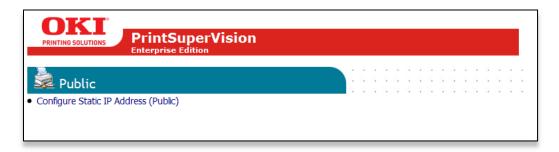
Enabling "Configure Static IP Address" in Public Web Site using PSV Setup tool:

The "Public Web Site" feature can be used in "internet" and "intranet" configurations. When used in an "internet" configuration, it typically receives data from other PSV server sites or PSV Agents. When used for "intranet" access, to provide limited functionality to all users in the network, not only those who are managed in PSV.

The "Configure Static IP address" tool is one such feature that can be enabled/disabled by checkbox. Please make sure to unselect this checkbox if PSV Public Web Site is used in "internet".



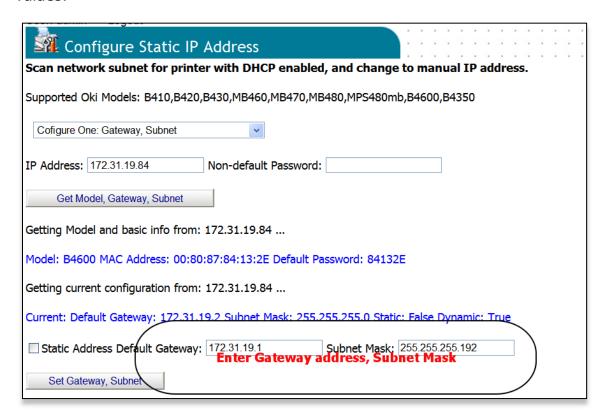
When the "Configure Static IP Address" tool is enabled, the main page on the public web site includes a link to this tool.



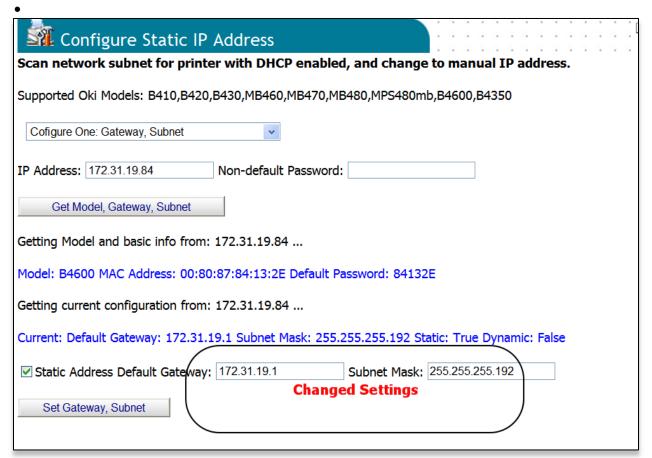
Configure One: Gateway, Subnet

PSV allows you to read the current configuration settings in place for one print device and change it. The "Configure One: Gateway, Subnet" page allows you to control which devices are configured and which settings are retrieved.

- **IP Address** Enter the IP Address of the device you want to configure in octet format such as 12.34.56.78.
- Non-default password If the device has a web password that is not default, enter it here.
- Click the Get Model, Gateway, Subnet button after you have made your selections for IP Address and Non-default password. PSV will then connect to the appropriate device and get the current values and show a form to change the values.



Enter the correct Gateway address – for example 172.31.19.1 – and Subnet Mask – for example 255.255.255.192 – and click the **Set Gateway, Subnet** button. The program will make the necessary changes in the device. Click **Get Model, Gateway, Subnet** button to verify the changes.



Fix Many: Gateway, Subnet

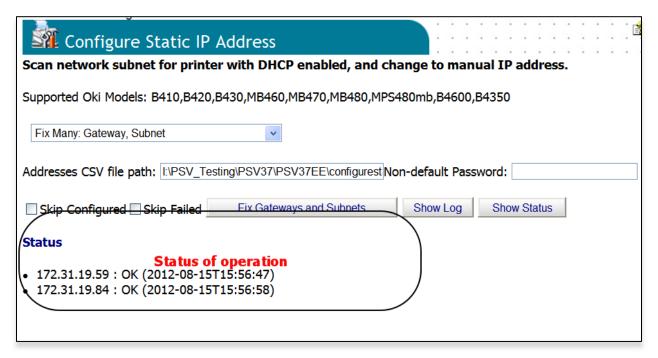
PSV allows you to fix the configuration settings for all print devices that are wrongly configured and change it. The "Fix Many: Gateway, Subnet" page allows you to control whether to skip devices that are already and skip devices that failed. Based on the results of the operation, you can use the "Configure One: Gateway, Subnet" option.

- Addresses CSV file path Enter the file path where the CSV file is located. If Import Schedule option is selected, PSV will prepopulate this field.
- Non-default password If the device has a web password that is not default, enter it here.
- **Skip Configured** Select this if you are running the program again to fix some devices that did not respond earlier. By default, this is selected to avoid duplicate setting of the devices that have already been configured.
- **Skip failed** Select this option if you know that the devices that failed are not in active service.
- **Show Log** This button shows the results of the operation.
- Show Status Shows the status of the devices current configuration.

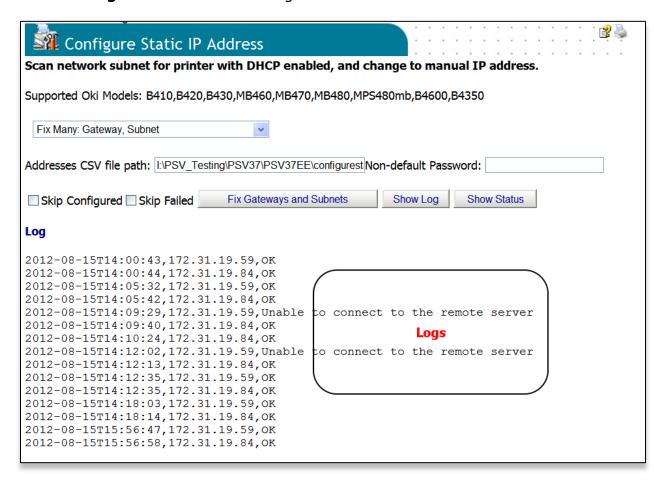
Click **Fix Gateways and Subnets** button to fix the configuration settings for all print devices that are wrongly configured.



Click **Show Status** button to view the status of the operation.



Click **Show Logs** button to view the log of all the actions taken.



Supplies Ordering

Both editions of PSV provide the option to order supplies on-line directly from the application. An Admin has several options to help make the supplies ordering process as easy and efficient as possible. It is also understood that not every organization is setup to order supplies on-line, so an option to disable on-line ordering is also included.

You can order supplies for your Oki devices at any time by:

1. Selecting **Tools / Order Supplies** from the main menu.

The options in the Order Supplies section help users to:

- Search for supply item
- Create an order manually
- Configure the URL for all on-line ordering
- Edit PSV's database of supplies
- Disable on-line ordering



Searching for a supply item

To search for an item, click the **Search** radio button, enter a description of a desired item and click the **Next** button. PSV will search its database for related supply items.

Select **Printers, then Items** button

The **Select Printers then Items** feature provides a list of the devices that PSV is monitoring so that you can first choose the device that needs supplies, then indicate the quantity of the item to purchase.

1. Check the "Select Printers then Items" radio button and click Next.

A list of monitored devices is displayed.

2. Select the desired device by clicking the check box and click the **Next** button.

A list of supply items related to the device will be displayed.

3. Add the desired order quantity and click **Next/Order On-line** or **Next/Print** to simply print your order.

The default e-commerce site is http://esales.okidata.com, which can be changed to any e-commerce site and will be discussed later in this section.

Items for Local Printers:

Click this option for a list of supply items that go to the devices that PSV is currently monitoring. Use the list to obtain a description of the supply item and Oki part number needed to place an order. Click **Next/Order On-line** or **Next/Print** to simply print your order.

All Available Items

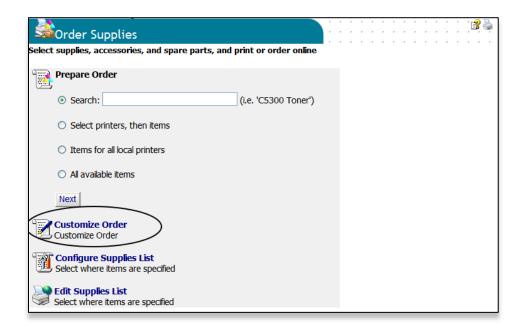
Click this option to display and print the entire database of supply items.

- 1. Enter a quantity of the item desired
- 2. Click Next/Order On-line or Next/Print to simply print a list of supply items

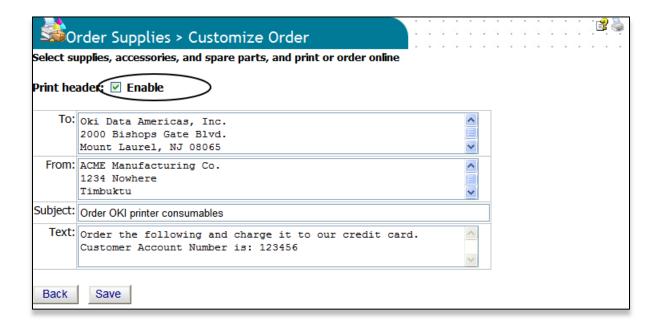
Customizing Supplies Orders

If on-line ordering is not desired in your organization, you have the option to manually create a printed supplies order page that contains the supply part number, description and quantity desired.

1. Click the Customize Order option.



- 2. You can add information to each printed supply order page by typing information in the **To, From, Subject** and **Text** fields template. Information typed will be added as a header to each supply order page.
- 3. Select the **Print Header Enable** check box to add the pre-configured information to each printable supplies order page.

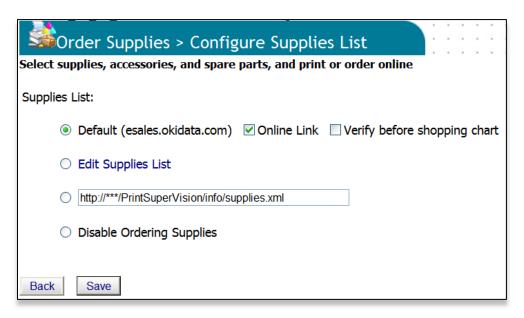


4. Click **Save** to return to the Order Supplies page

Configuring the Supplies List

There are four options to configure the supplies list that is integrated into the PSV application:

- You can use the existing supplies list which obtains its information from http://esales.okidata.com
- You can edit and add to the existing supplies list
- You can point PSV to another list
- You can disable supplies ordering entirely



Default Button

Selecting **Default** continues to use the supplies list that is provided with the PSV application.

As an added convenience you may want to allow your users to verify the ordering information before linking to an e-commerce shopping cart. Click the **Verify Before Shopping Cart** check box for that option.

Enabling / Disabling Online Supplies Ordering:

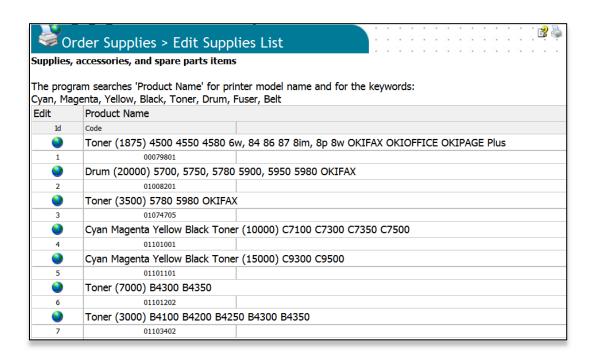
To enable or disable on-line ordering entirely, select or deselect the **Online Link** check box. Checking this box will add the **Order Online** button to the printer status page (and system wide) and allows users to order supplies on-line from many different areas.

Unchecking the box removes the **Order Online** button system wide and eliminates the ability to order supplies on-line entirely.

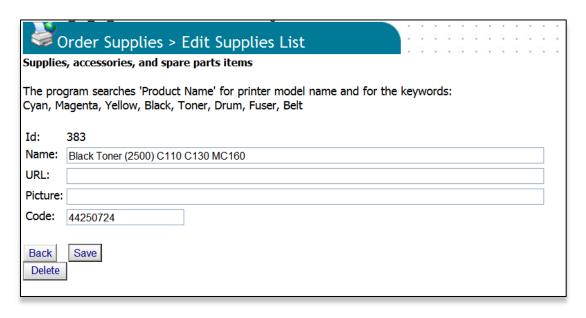
Editing the Supplies List:

The default supplies ordering information list can also be customized. Editing the Supplies List creates an additional XML file that contains the default supplies ordering information plus any edits or additions you make to the default file.

Selecting the **Edit Supplies List** radio button tells PSV to use your edited list (versus the default list). Clicking on the **Edit Supplies List** link (displayed in blue) takes you to the area where additions and edits can be made and is displayed in the following screenshot.



1. Click on the globe icon displayed in the **Edit** column to edit existing information or scroll to the bottom of the list to add information and click **Add Item**



2. Enter or edit the name and description of the supply item in the **Name** field. Since PSV uses the contents of the **Name** field as search criteria, it is important to indicate the model number of the device that the supply item is related to in that field.

- 3. If you plan to use a different e-commerce site than esales.okidata.com, enter the appropriate web site address in the URL field. If the URL field is left blank, the supply item will be unavailable to order on-line. The description of the supply item however will be available to print when creating a printed supplies order page described earlier.
- 4. The **Picture** field is used to display an image of the supply item when viewing the supplies list. Enter an appropriate link to the desired image. Leaving the field blank will still display a description and part number of the item in the supplies list, but no image will be displayed.
- 5. To edit the item's part number or SKU, enter the new number in the **Code** field.
- 6. Click the **Save** button to save your changes.

Note: This procedure must be replicated for each supply item if you intend to use an ecommerce site other than http://esales.okidata.com. As an alternative to editing each supply item manually, you may edit the Supplies List XML file that PSV uses for this purpose.

You can locate the file in the following folder and perform a global search and replace on the old / new URLs. The XML file is stored in

C:\Program Files\PrintSuperVision\www\..\data\supplies11.xml

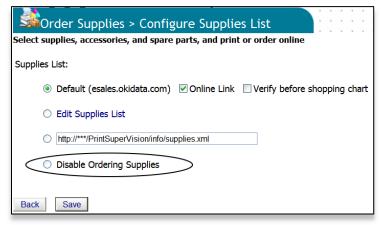
Selecting an Alternative Supplies List

You can also point PSV to any other compatible XML file that contains custom supply descriptions and part numbers. Enter the appropriate URL of the file in the box and click the associated radio button.

Use the XML file mentioned above as a template when creating a custom supplies list.

Disabling Supplies Ordering:

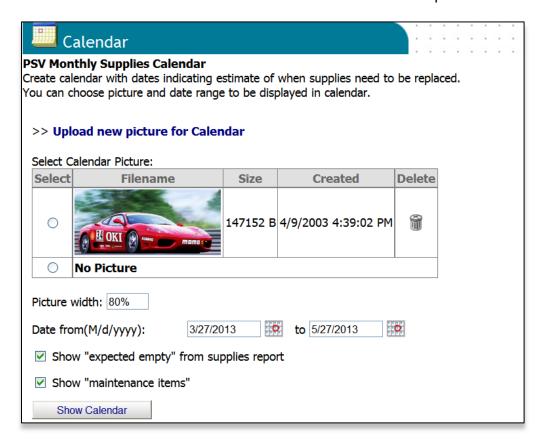
To completely disable the ability to order supplies either on-line or by manually printing a supplies order page (discussed earlier), click the Disable Supplies Ordering Button and click Save.



Supplies Ordering Calendar:

To help you plan ahead when ordering supplies, PSV offers a monthly supplies calendar view that indicates (based on historic usage) when a supply item will run out and when a maintenance item needs to be replaced. And with your favorite picture, you can print the calendar and hang it on the wall.

1. Click **Tools** from the main menu and **Calendar** from the drop down menu.



- 2. Select the **Picture** radio button if you wish to display and/or print an image on the calendar.
- 3. Select a date range for the calendar
- 4. Check the **Show Expected Empty From Supplies Report** and **Show Maintenance Items** if you wish to be reminded of both supplies and maintenance items that need to be replaced (such as fusers and transfer belts).
- 5. Click the **Show Calendar** button to generate your supplies ordering calendar.

Reporting

PSV can generate several reports that identify supplies use, predict toner replacement dates, indicate pages printed, export device properties and so on.

Most reports can be displayed or saved in various formats such as HTML (Web), XML, Excel, CSV or Text files.

Most reports can be scheduled to be periodically generated and delivered by email. Reports available depend on the PSV edition installed and user access rights.

Available Reports:

Report	Description
Total Engine Pages Count	Reports the total page count of the selected device/s. The total page count is a reliable counter which is never reset. The total page count includes many jam counts also with the exception of feed jams.
Color, Mono Usage Page Counts	Reports the color and mono page count of the selected device/s. The color and mono page counts are computed by the printer controller. If the controler board is replaced, or some other reset is done, the counter values wil be reset to 0. The color and mono page counts do not include many jam counts.
Color, Mono, Total Page Counts	Reports the color, mono and total page count of the selected device/s. The color and mono page counts are computed by the printer controller while the total page count is computed by the printer engine. If the controler board is replaced, or some other reset is done, the counter values wil be reset to 0.
Equivalent Impression Counts	Reports the equivalent A4/Letter impressions with color and mono breakup. The equivalent impressions account for printing in different media sizes such as banner or tabloid or duplex, and calculates the equivalent A4/Letter impressions.
MFP Page Counts	Reports the MFP Print with color and mono breakup, Scan, and Fax counts. These are reported only for some OKI devices.
Page Counts by Tray	Reports the page counts by each tray. The tray counts reflect the sheets printed, and does not account for duplex printing.

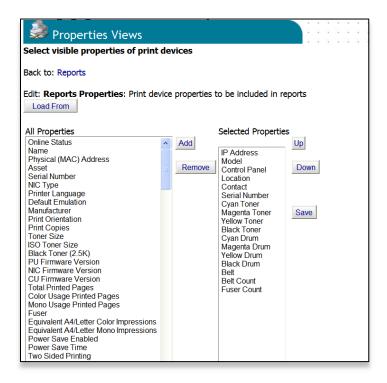
Configuring Report Properties:

Before selecting and scheduling delivery of an individual report, you have the option to add or delete many different attributes and properties that are available for reporting.

Once the properties and attributes are saved, PSV creates a universal report configuration that applies those saved properties to most of the reports (exceptions include the Windows Print Job Logs report). You may edit the saved properties at any time.

To select reporting properties and attributes:

- 1. Select **Reports** from the main menu
- 2. Click Reports Properties from the drop down menu



- 3. Select desired device properties from the **All Properties** column
- 4. Click **Add** to move them to the Selected Properties column. If you make a mistake, click **Remove** and the property will be placed back in the All properties column.
- 5. Once you have added the desired properties to the report, you may prioritize them by clicking the **Up** and **Down** keys. The order in which the property is listed is the order the column will appear in each report.
- 6. Click the **Save** button to save your selections.

Alternatively, four pre-configured report formats have already been created and may be selected by clicking the **Load Form** button. Select the desired format from the drop down menu and click the **Load** button. Be sure to click **Save.**

Printing Report:

This report displays the color and mono page counts on a monthly or daily basis. This report is available only for a select group of printers.

For OKI products, the devices return many counter values. Following is a brief description of the various counters.

Total Engine Page Count – This count is the total number of pages printed by the printer engine, and includes pages jammed (other than feed jams). For duplex printing, this counts both the faces, i.e., 2 pages. This value is a life count and will always be increasing.

Color Usage Page Count – This count is the total number of color pages printed by the printer controller, and does not include most jam conditions. If the printer controller board is replaced or some other formatting operations are performed, the counter value will be reset to 0. For duplex printing, the color or the mono page count is incremented based on the content of the front or back face of the page.

Mono Usage Page Count - This count is the total number of mono pages printed by the printer controller, and does not include most jam conditions. If the printer controller board is replaced or some other formatting operations are performed, the counter value will be reset to 0. For duplex printing, the color or the mono page count is incremented based on the content of the front or back face of the page.

Tray Page Count – This count is the number of sheets printed from each tray and includes pages jammed (other than feed jams). For duplex printing, this counts one face only, i.e., 1 sheet. This value is a life count and will always be increasing.

Scan Page Count – This count is the number of scanned document pages, and does not include most jam conditions. If the scanner controller board is replaced or some other formatting operations are performed, the counter value will be reset to 0. Breakup of the scanned pages by ADF and glass is available.

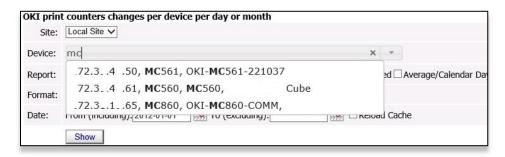
Usage Report – This report includes total as well as breakup of the page counts accounting for different media sizes and color / mono as well as simplex / duplex printing. The total counts are adjusted for equivalent A4/Letter values. For some devices, the Usage Report feature has to be enabled in the device, and only then this report will be available.

Fuser Count – This count is the number of pages passing through the fuser unit adjusted for paper length. In view of that, the fuser count can provide an equivalent page count when A3 or banner printing is done. The value will be reset to 0 when the fuser unit is replaced.

MFP Usage Report – This report provides a summary of the Print, Scan and Fax counts of MFPs with detailed breakup of each.

The "Device" drop-down list controls which devices page counts will be shown for. The contents of this list can be filtered by entering text in the edit field at the top of the list.

The contents of the list are updated as you enter text. Only items in the drop-down list that contain the text will be displayed. For example, if you only wanted the list to contain OKI model B710, you could enter "B710" in the edit field. Filtering is done by searching the text of each list item. If the list item contains the text, it is kept in the list. If it does not, then it is removed from the list. As another example, if you enter "50" in the edit field, this would match the OKI C9650 if it is in the list, but it would also match a device with IP address 12.3.44.50 if such a device was in the list.



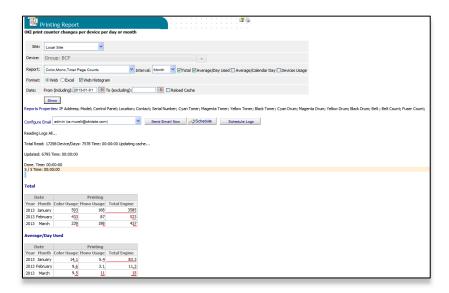
The "Report" drop-down list controls which page counts are shown in the report.

The "Interval" drop-down list controls if the counts are reported by month or by day.

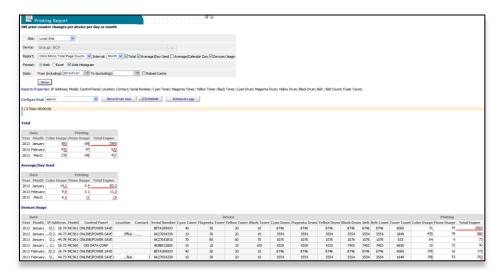
By default, the Printing Report shows the total counts for all devices in a group - when a printer group is selected i.e. the counts for individual printers within the group are not shown. If the counts for individual printers are needed, check the "Device Usage" checkbox.

The "Report Properties" link allows you to change the printer properties that are shown for individual printers. The Report Properties are displayed only when the "Device Usage" checkbox is checked.

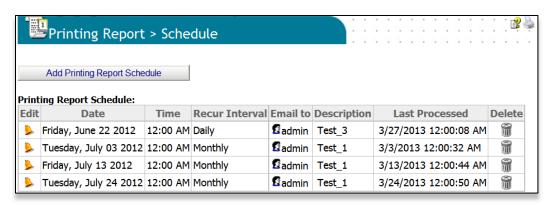
The Printing Report can be configured so that the report is sent automatically to PSV users. In order to do this, certain email settings must be configured. The "Configure Email" link transitions to the screen where the email configuration is done.



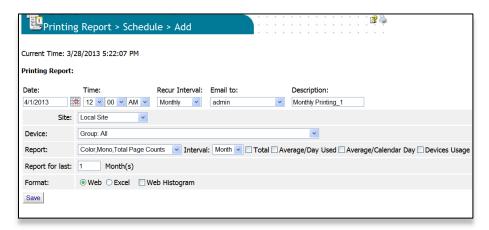
When the **Device Usage** checkbox is checked, the counts for each device are shown in addition to the totals.



The Printing Report can be scheduled to run automatically by clicking the **Schedule** button. The report is emailed to selected PSV users when run this way.



Scheduling a report can be added by using the following form.

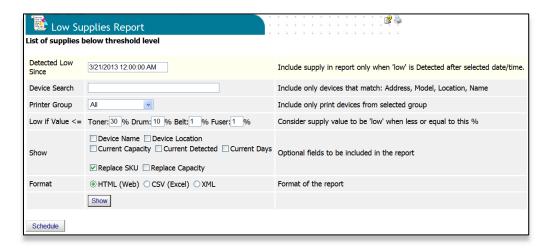


Users can view the Schedule log for the Printing Report by clicking on the **Schedule Log** button. An entry is added to the log each time PSV attempts to run a scheduled report.

Low Supplies Report

The Low Supplies report is a very simple way to identify devices that are reporting toner remaining levels equal to or less than the user defined percentage.

1. From the main menu click **Reports** and select **Low Supplies Report** from the drop down menu.



The process of scheduling the Low Supplies Report consists of the following:

- Managing the list of print devices in the PSV database
- Configuring printer groups
- Defining Low Supplies Report parameters
- Creating Schedules for Low Supplies Report

This report lists devices with a consumables value lower than the configured value during the specified period. The report includes only supplies that are 'detected' to be 'low' in the interval since the selected date/time. This means a supply will be reported low only once – no duplicates - as long as the selected intervals do not overlap.

The fields in the report and their brief description are listed below.

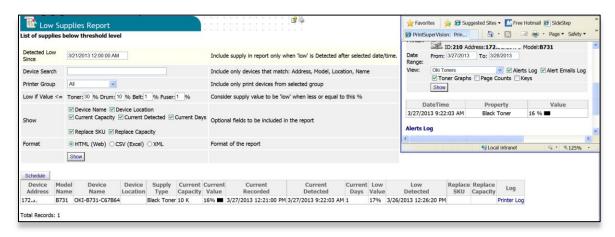
- **Detected Low Since**: Enter the date from which the Low Supplies Report is to be run. By default, PSV selects 1 week from the current date for interactive reports, and for scheduled reports show the last time the report was sent by PSV.
- **Device Search**: If multiple devices are monitored by PSV, you can enter the specific model name that you are interested in this optional field.
- **Printer Group**: Select All or a specific Printer Group. The dropdown list shows all the Printer Groups that are configured in PSV. Select the group you are interested in. For scheduled reports, you can select multiple schedules based on each group.
- **Low if Value <=**: Enter the desired threshold parameters for the supplies such as toner, drum, belt, and fuser. Supplies with a reported value below this level will be included in the report. Usually, the belts and fusers have a longer life than the toner and the drum.
- **Show**: Select the parameters of interest. The Device Name and Device Location are fields that are configured in the printer's device web page. Current capacity of

the supplies as well as the suggested replacement capacity is listed. By default, PSV lists the largest available size of the replacement consumable.

 Format: Select the report format - which includes HTML (Web), CSV (Excel), and XMI.

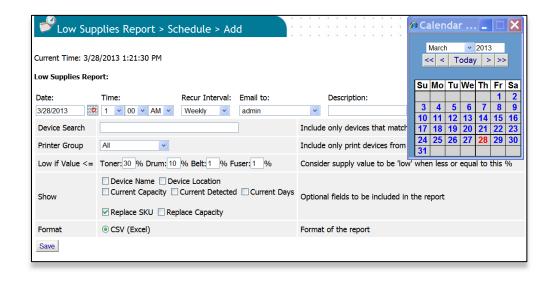
A sample Low Supplies Usage Report is displayed below.

To view additional details of a specific device, click on the Printer Log hyperlink.



The Low Supplies Report can be scheduled to be sent to different users or user groups and a number of reports can be scheduled with different parameters for various printer groups.

Select Reports | Low Supplies Report and click on Schedule. If Schedules have already been configured, this page will show the current schedules. To add a new schedule, click on Add.



The Date, Time, and Recur Interval settings control when and how frequently the report is run.

The email Subject line includes the Description field in the reports sent.

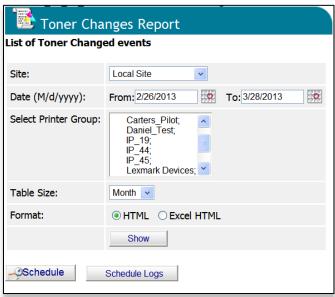
The current list of scheduled reports is accessed by selecting Reports | Low Supplies Report | Schedule. You can edit the individual report settings. If you make any changes, be sure to click the Save button.

Toner Changes Report

The "Toner Changes" Report shows the dates of the last toner cartridge replacement for a group of devices and indicates if there was any toner remaining at the time of replacement. This report is particularly helpful in identifying wasted toner as a result of changing the cartridge too soon.

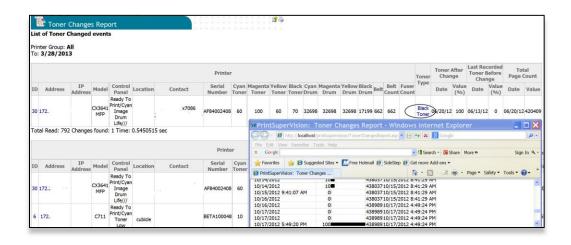
Note: The Toner Change Report is not available in the Professional Edition.

1. Select **Reports** from the main menu and **Toner Changes Report** from the drop down box.



- 2. Enter a range of dates or click on the calendar icons to select dates.
- 3. Select a group of devices to report on
- 4. Select a report format and the method to display results; by month or by various table sizes to make the data more readable.
- 5. Indicate either HTML or Excel format and click **Show** to generate the report

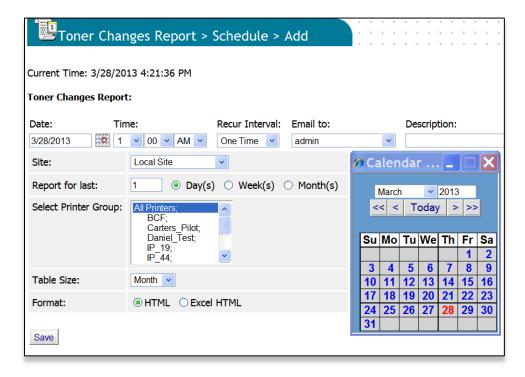
Additional details for toner replacement are available by clicking the toner type links (highlighted in blue). This presents a sub-report that can help you pinpoint toner remaining at on a particular date.



Scheduling a Toner Change Report:

A Toner Change report can be scheduled to run periodically and automatically delivered via email to an individual or group.

- 1. Click the Schedule button
- 2. Click the Add Toner Changes Report button
- 3. Select a starting date and time, select a recurring interval for the report to be generated and sent, indicate email recipients and click **Save**.



The toner changes report will be generated and sent to the recipient on the dates and times indicated.

Note: For added convenience the **Schedule Logs** button located next to the **Schedule** button provides a quick way to see if/when the Toner Changes Report was generated and sent via email.

- 1. Click the **Schedule Logs** button
- 2. Indicate the desired date range
- 3. Select **Toner Changes Report** from the drop down menu
- 4. Click **Show** to run the status log

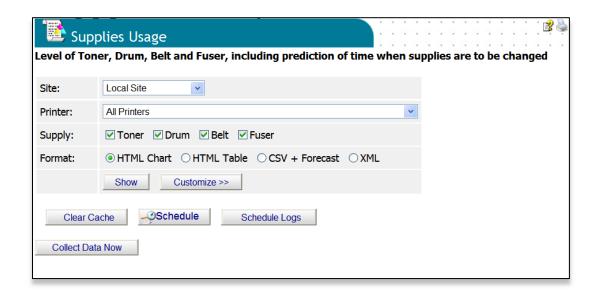
Supplies Usage Report

The Supplies Usage report displays current levels of toner as well as drum, transfer belt and fuser usage.

- The report can be created for a group of devices or a single device
- Report data can be displayed as an HTML table or chart
- Data can be imported into Excel
- Data can be presented in XML format

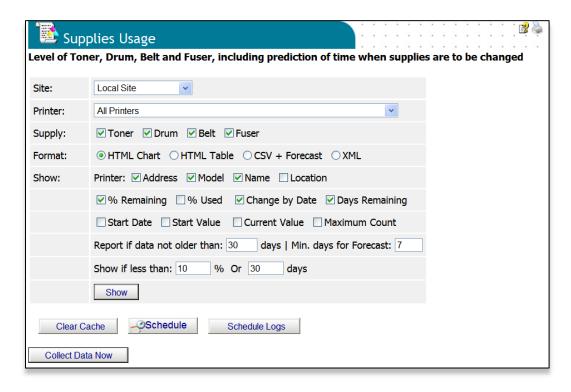
The Supplies Usage report helps you to plan your supply purchases by predicting when consumables (supply items) will run out. A forecast report is also available that predicts the consumables that will be required over a period of time based on the current usage.

- 1. Select **Reports** from the main menu and Select **Supplies Usage**
- 2. Select an individual device or group of devices from the dropdown menu.
- 3. Select the Supplies you wish to view and the desired format of the report.
- 4. Click the **Show** button to run the report



After running the report with default settings, you may choose to customize the report:

1. Click the **Customize** button



2. Select any of the following options

% Remaining:

Indicates the percent of each supply item that is not used

% Used:

Indicates the percent of each supply item that has been used

Change by Date:

Indicates the anticipated date the supply item will run out

Days Remaining:

Indicates the anticipated number of days remaining before the supply item runs out

Start Date:

The date that PSV started monitoring the device

Start Value:

The consumable value recorded when PSV started monitoring the device

Current Value:

• The consumable value recorded at the time the report is generated

Maximum Count:

 Displays the maximum design value of the consumable. This value is used in calculating the remaining percentage of the consumables.

Report if data is not older than XX days:

Allows data from inactive devices to be filtered out

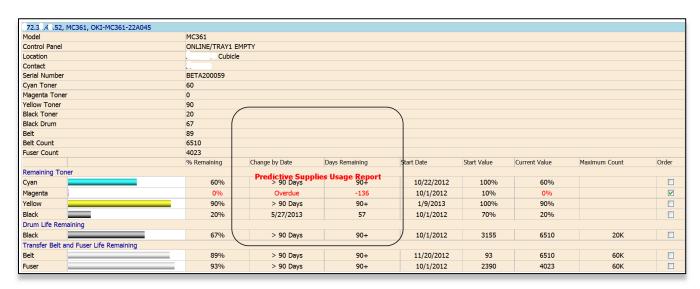
Min. days for Forecast xx days:

 This value which by default is 7 days shows the consumables forecast for the number of days. If lower or higher number is desired, select a suitable value.

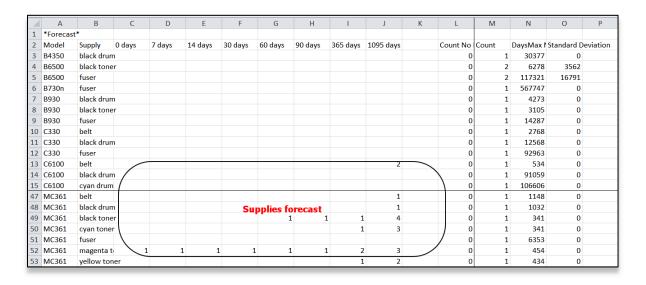
Show if less than XX% or less than XX days:

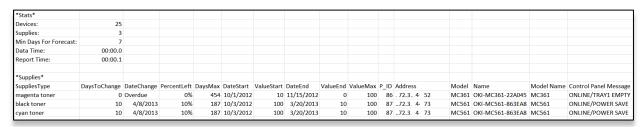
 Prints values in red text to stress the importance of replacing supplies that are almost out. Use a higher value if you need more time to react. Use a lower value if you are only concerned with critical situations.

3. Click **Show** to run the Supplies Usage Report



- A sample of the Supplies Usage Forecast Report is shown below which indicates the consolidated list of supplies that need to be replaced in the next few days.
- The details of the forecast report show additional information about the device and the consumables data.

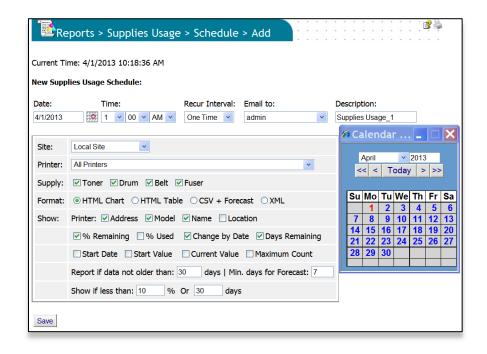




Scheduling a Supplies Usage Report

Like all PSV reports, The Supplies Usage Report can be run automatically and sent to a user by clicking the **Schedule** button.

1. Click the Add Supplies Usage Schedule button



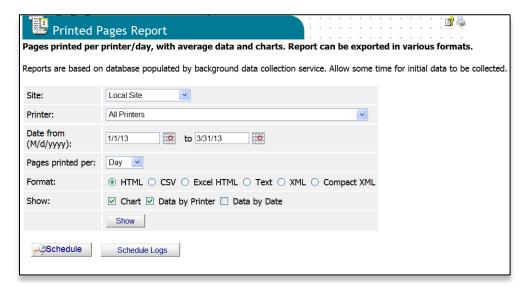
- 2. Select a starting date and time, select a recurring interval for the report to be generated and sent, indicate email recipients
- 3. Choose formatting options
- 4. Click Save

Click the **Schedule Logs** button to verify that reports are being generated and sent according to the schedule specified.

Printed Pages Report

The printed pages report displays the number of pages printed over a period of time by an individual device or by a group of devices. Like all of PSV reports, you can use the **Reports Properties** feature prior to defining the parameters of the report to add additional information to the report.

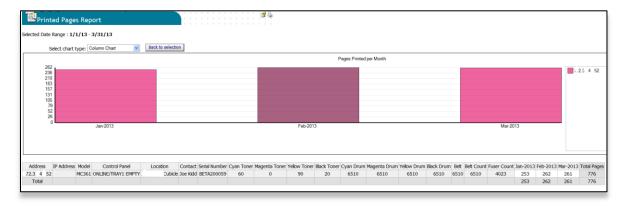
- 1. Select **Reports** from the main menu
- 2. Select **Printed Pages Report** from the drop down box



- 3. Select a single device or group of devices
- 4. Enter a date range for the report
- 5. Choose the desired format type
- 6. Indicate whether you would like PSV to calculate average pages printed per day and /or to include a graph or chart of the pages printed.

Note: If the Chart option is selected, the "Pages Printed" report can be graphed using several different charting formats such as pie charts, bar graphs and line graphs.

7. Click the **Show** button to run the report. A sample report is displayed below.



Scheduling a Printed Pages Report:

The Printed Pages Report can also be automatically created and sent to a user at predetermined intervals.

From the Printed Pages Report screen:

- 1. Click the **Schedule** button
- 2. Click the Add Printed Pages Schedule button
- 3. Select a starting date and time, select a recurring interval for the report to be generated and sent, indicate email recipients
- 4. Choose formatting options
- 5. Click **Save**

Click the **Schedule Logs** button to verify that reports are being generated and sent according to the schedule specified.

Exporting Device Properties and Attributes Report

The **Export Printers Data** option makes it easy to view and save a list of all device properties and attributes for each device. You control the content included in the report by selecting the desired properties and attributes from the **Reports Properties** page (Select **Reports** from main menu and **Reports Properties** from the drop down box to configure the report).

Select **Reports** from the main menu and **Export Printers Data** from the drop down box.



Note: if you have more than one PSV site running, you may also choose the appropriate PSV Site from the drop down box.

Select the desired file format for report and click **Show**.

You may also choose to have the report automatically emailed to you by clicking the **Schedule** button.

The **Schedule Logs** button allows you to view a running log of all scheduled events or just the events pertaining to the generation and distribution of this report.

Usage Report

Many devices from Oki Printing Solutions are capable of producing a Usage Report that is generated and printed directly from the device's operator panel. PSV can access this data remotely if the Usage Report has been enabled on the device.

The Usage Report tracks black and color printed pages and displays page counts in Letter/A4 size page equivalents (generally required for pay-for-print scenarios).

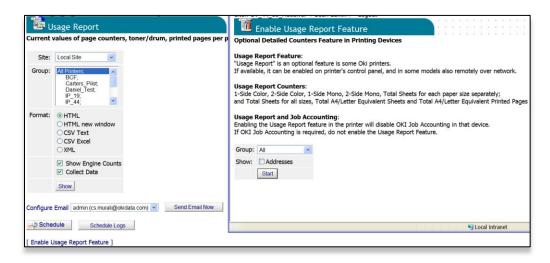
As an added convenience, supplies and consumable status is also displayed in the Usage Report.

Note: With most Oki devices, the Usage Report feature can be disabled from the device's operator panel. If the Usage Report feature is disabled, PrintSuperVision will be unable obtain the Usage Report page count information if the password is changed. If the default password is used to set the Usage Report, then Usage Report has an option to enable the Usage Report feature remotely.

An option is available in the Usage Report section of PrintSuperVision for "engine counts" to be displayed. Engine counts are referred to as "life counts" of the device.

To generate a Usage Report,

1. Select **Reports** from the main menu and select **Usage Reports** from the drop down box.

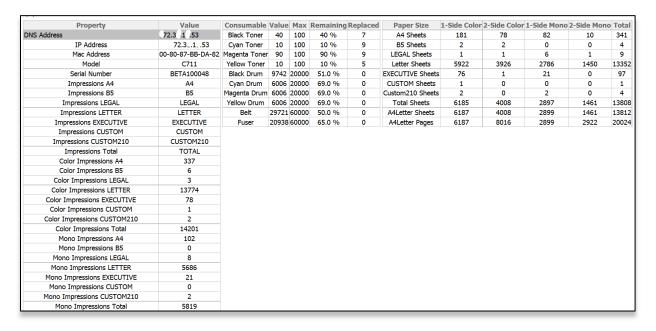


- 2. Select a group of devices
- 3. Indicate the desired file format for the Usage report.

Show Engine Counts is an option that displays life counter information but is not needed if the Usage Report option is enabled in the device and is reporting page count data to PrintSuperVision.

The **Collect Data** option instructs PSV to obtain the latest information from the device before the usage report is generated.

4. Click the **Show** button to generate a report.



The **Configure Email** button is provided as a navigational convenience and is not necessary if your email system has already been configured.

The **Send Email Now** button sends the report in Email immediately to the recipient indicated in the drop down box.

Click the **Schedule** button to send the report at predetermined intervals.

Click the **Schedule Logs** button for a running log of the Color/Mono Pages Report events

As an added convenience PrintSuperVison can enable the Usage Report option remotely on most Oki devices by clicking on the **Enable Usage Report** Feature. Select a group of devices and click **start**.

Windows Print Job Logs

Another convenient feature in PSV is the ability to view individual print logs obtained from the Windows print queue on client PCs where the PSV Agent is installed. The print logs indicate the date the document was printed, the name of the computer used, the driver used, the print queue, whether it was printed via USB or over the network, the name of the document, and the number of pages.

The Print Job Logs report also provides the ability to summarize the number of pages printed by a user and the number pages printed by particular device (only when the PSV agent is used).

Since data is being obtained from Windows (and not the device) you can use this report if you have non-Oki devices connected to PC's that are running the PSV agent.

This feature works only if PSV Agent is installed in Windows XP or Windows 2003 computers.

To run a Windows Job log report, click **Reports** from the main menu and select **Windows Print Job Logs** from the drop down menu.

Windows Print Job Logs From Windows Print Event Logs on XP and 2003 computers with Agent		
Collect Windows Print Logs: 🔽 Save Enables collection of Windows Print Logs from Agents sending data to this PSV Server.		
Username:	▼ ·	
Printer Address:	V	
Date	From(including): 1/1/2013 To(excluding):	
Show:	✓ Sum by User ☐ Sum by Printer ☐ Logs	
Format:	Web ○ CSV(Excel)	
	Report	

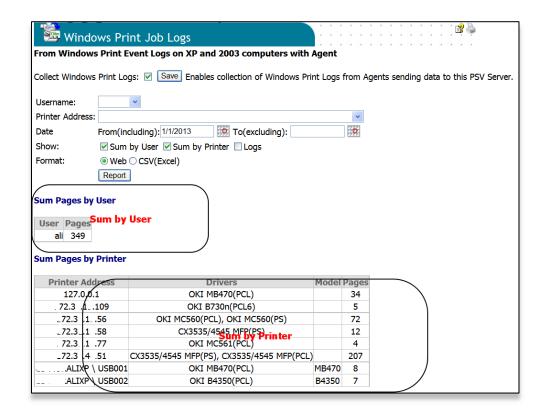
Click the **Collect Windows Print Logs** check box and click **Save.** The next two operations are optional but will help obtain more granularity in the data desired.

Click the down arrow in the **Username** drop down and select the desired **Agent** or leave blank to obtain data from all agents. Click the down arrow in the **Printer Address field** and select the appropriate print queue or leave blank for all print queues. Select desired date ranges.

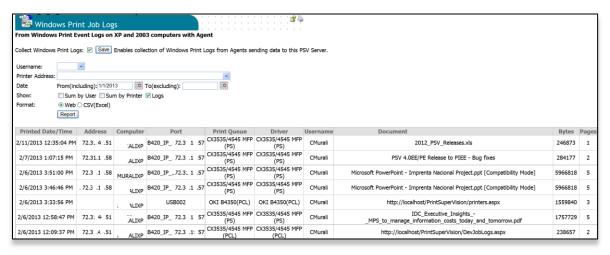
At this point you have the option to select any of the three choices: **Sum by User**, **Sum by Printer or Logs**

Clicking **Sum by User** generates a simple list of the users that have the agent installed and a corresponding number of pages printed by that user.

Clicking **Sum by Printer** generates list print queues, the type of driver used, the type of print device used and the number of pages.



Clicking **Logs** generates a report showing the username, the document name, and when the document was printed, and the number of pages printed.



Finally, click the **CSV option** on any of these reports to export the data to excel for further manipulation.

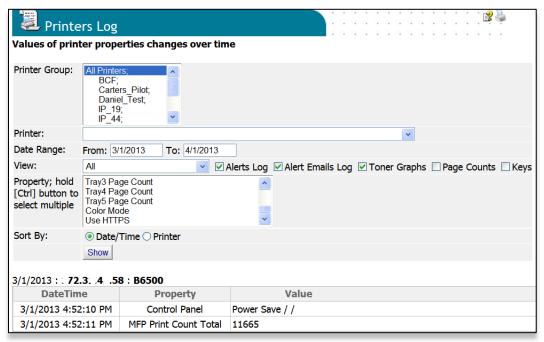
Printers Log Report

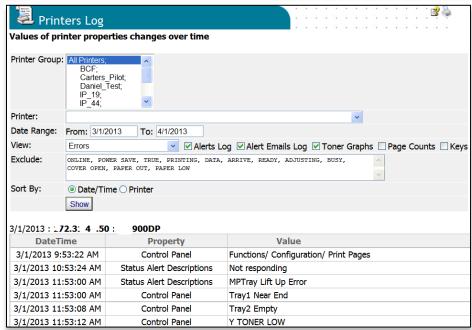
The Printers Log report collects status messages that are periodically displayed on the device's operator panel and saved in the device's memory. It can be helpful to view a history of all the messages the device has generated over a period of time when planning a refresh or just looking at the performance of each device.

The Printers log report allows you to select a specific group and/or device, a date range, the types of messages and the ability to exclude certain messages (such as "online", "power save" and "data arriving". You can also sort the logs by date / time of by device.

To run the Printers Log report:

1. Click **Reports** from the main menu and **Printers Log** from the drop down box.

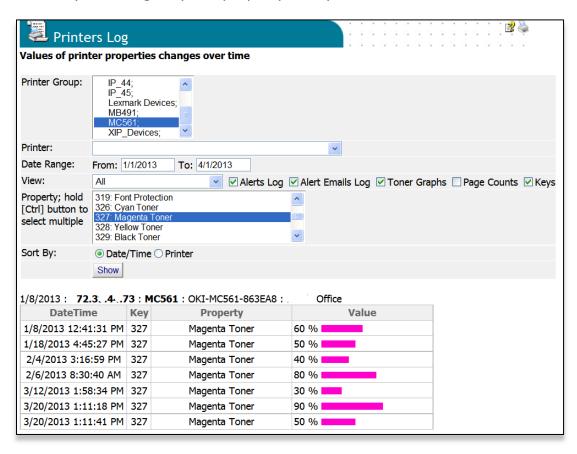




- 2. Select **All Printers**, **an individual group** of devices and/or a single device from the drop down menu
- 3. Select the desired date range

- 4. Select the type of log to view or select **All.** Available options are: Errors, Statuses, Oki Toners, Oki Toner and Page Counts, All.
- 5. The **Exclude area** allows you to filter out common messages that may be unimportant to you like "paper out" "data arriving" and "online". You can keep the default filter words displayed or add and delete as you see fit. Make sure the words or phrases are separated by a comma.
- 6. Sort the report by the date and time the log was registered or by individual device.
- 7. Click **Show** to generate the Printer Log report

Note: When **All** is selected in the View field, you have the ability to filter the log search results further by selecting only the property that you are interested in.



For example, the Magenta Toner info property was selected. After clicking **Show**, all logs that pertain to that property are displayed. Multiple fields can also be chosen by CTRL + <field> or SHIFT + <field>.

When "Errors" is selected from the "View" drop-down list, specific control panel messages can be excluded from the report by entering their text in the "Exclude" edit field. For example, to exclude "Black Toner Low" messages from the report, you would enter "Black

Toner Low" in the "Exclude" field. Messages in the "Exclude" field should be separated from one another by a comma.

Device Job Logs Report

The Device Job Logs report allows you to analyze the type of print jobs sent to a device. It provides the document name, the number of pages and sheets printed, the date and time the document was printed and the username of the person who printed it.

Device Job Logs provide detailed reporting of print, copy, and scan use for a particular device. This report is useful when detailed data is needed with respect to device use. The report allows you to see totals by printer and by user. You can also view the data for each individual job if that level of detail is needed.

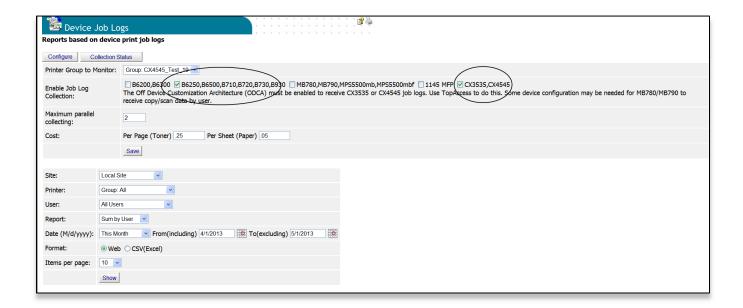
It also lets you assign a "per-page" and "per-sheet" cost to each page and/or sheet to quickly calculate the cost of printing. Pages represent a printed single side of paper and sheets represent the physical piece of paper.

The Device Job Logs report is supported for the following OKI devices:

- B6200, B6300, B6250, B6500, B710, B720, B730, B930
- MB780, MB790, MPS5500mb, MPS5500mbf
- CX1146 MFP
- CX3535, CX4545

To configure and run a Device Job Logs report:

- 1. Click **Reports** from the main menu and select **Device Job Logs** from the drop down menu
- 2. Click the **Configure** button and select the devices.

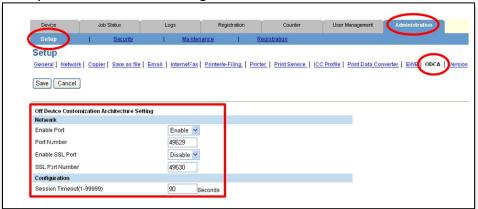


- 3. The "Maximum parallel collecting" edit field allows the user to limit the number of threads that PSV allocates for job log collection.
- 4. Enter a per page and per sheet cost if you would like PSV to calculate costs

5. Click Save

Some device configuration may be needed on the MB780/MB790/MPS5500mb/MPS5500mbf depending on the level of detail desired. If copy jobs need to be identified by user, then security on the device must be configured to require the user to log in in order to use the copy function. Otherwise, a default device user is shown in the report instead. Additional device configuration is needed for scan jobs to be reported.

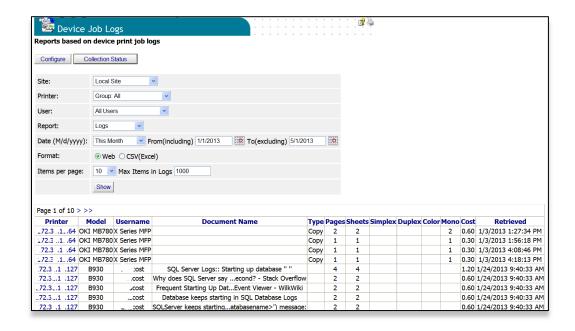
The Off Device Customization Architecture (ODCA) must be enabled in the CX3535 and CX4545 in order for PSV to collect job logs from these devices. This is done using TopAccess and requires administrator log in.



To run a Device Job Logs report:

The user can filter the data by printer/printer group and by user. Selecting "Sum by Printer" or "Sum by User" from the "Report" drop-down list results in summary data being reported. To view detailed job data, select "Logs" from the "Report" drop-down. Each print, copy, or scan job that has been collected from the device will be shown separately in the report.

- 1. Select the appropriate PSV **site**, **group**, and **user**.
- 2. Select the option to summarize all logs by individual **user**, by **printer** or to just produce a list of all job logs from each device.
- 3. Select a date range
- 4. Select **Web** if the report is to be viewed on screen, or **CSV** if you intend to import data into Excel
- 5. Determine the number of entries per page
- 6. Click Show



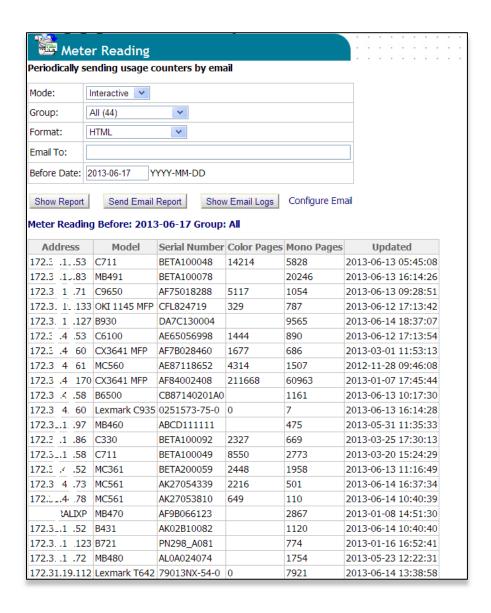
Meter Reading Report

The Meter Reading report shows color and mono page counters at the end of the selected interval.

Counter values may not change for several days if the device is not being used. The report takes into account any inactivity that occurs at the end of a period. This provides a convenient way to see the counter values as of the end of a day, month, or quarter.

For example, if 'Month' is selected for Interval, the report shows the counter values collected before the first day of the current month. If Interval is set to 'Day', the report shows the counter values collected prior to the current day.

In 'Interactive' mode, the report is shown on the screen. You also have the option to send an email containing the report. The report is available in many formats selectable in the Format dropdown list.



Scheduled mode is used to configure periodic sending of the report as an email.

The last report date is saved as 'Reported Before', to remember when to send next scheduled report.

"Process Now" generates the Meter Reading report immediately based on the displayed report settings.

Show Email Logs displays a log of previous reports sent by email.

Print Accounting

Accounting features that help manage compatible print devices are described in this section. Not all OKI devices are supported.

The main features of PSV Enterprise Edition Accounting are:

- Ability to collect detailed per user and per device job logs. The logs typically
 include information such as the name of the document printed, who printed the
 document, the number of pages printed, and the date/time it was printed.
- Ability to enforce access control for individual users through the use of quotas. Quotas enforce a limit on the number of pages a user can print each month
- Ability to import and synchronize user information from Microsoft Active Directory or from CSV or XML files
- Ability to generate reports that show data by user and device.

PSV collects accounting data from multiple sources. Using multiple sources allows PSV to support a wider variety of print devices. The data sources include

- Native firmware data from compatible Oki devices
 - Print devices connected to network
 - Devices connected to computers by USB (requires PSV Agent)
- Web based accounting from some compatible print devices
- Windows print logs from all print devices (requires PSV Agent). Note that Windows print logs are limited to Windows XP and Windows 2000 OS.

When "full control" accounting is configured on a compatible OKI print device, each print job needs to include an "AccountID" the print device has been configured to accept. If the AccountID is not present or is not recognized as valid by the device, then the print job is ignored.

Main Elements of the System

- PSV EE Web Server:
- Manage print devices
- Manage directory users
- Username, AccountID, PrintID, CardID
- (optional) connect to Active Directory to "sync" directory user's accounts
- Import users' data periodically from AD
- Communicates with Agents
- Receive usage data and logs from Agents
- Provide Directory Users info and other configuration data to Agents
- PSV Agent
- Communicates with PSV Server to get and send printer data
- Receive and process print jobs from individual computers
- Adjust print jobs to include AccoutID based on username
- Hold print jobs or print directly
- Monitor "authentication devices" such as ID Card Readers, Network KeyPad

- Process received authentication info, find matching print jobs from identified user, and send them to matching print devices
- Manage "Power Save" mode on print device to reduce the time to print

The separation of features between the Server and the Agent is intentional. There could be many agents connecting to the same server since the Agent is typically installed on each computer acting as a print server.

Workflow

While the system has many features, typical use can be quite simple. The workflow is based on managing the accounting features in the print devices. The typical workflow is:

- **Configure Directory User accounts**. Account management in a device is based on the directory user accounts set up in the PSV EE database.
- **Configure the Managed Print Devices**. The option to collect job logs or to control printer access is first defined in PSV server.
- **Sync with selected print devices**. The device settings specified using PSV are then used to configure the print devices.
- **Schedule periodic syncs** with Active Directory and print devices. Changes in Directory Users or desired device configuration must be communicated through the system.
- Generate usage reports.

Configuring PSV Server Accounting

PrintSuperVision Server is a network print devices management tool with many features, including those related to "Accounting" that are included in Enterprise Edition. Those Accounting features are optimized for selected OKI devices and provide rich set of management and logging options.

When used in combination with "Print Agent", PSV Accounting adds ability to track and control usage of print devices, including "locking control panel" of MFP devices to control access and usage.

Most of the time users of print devices and print services are already managed in Active Directory, and PSV Accounting can leverage this by periodically importing "Directory Users" from either Active Directory or CSV or XML files.

The PSV program also has user management for the program itself that is separate from Accounting: PSV Users are managed in "Options => Users", and Accounting users are managed in "Accounting => Directory Users". They should not be confused.

"Accounting => Managed Print Devices" is the tool for controlling and tracking usage of print devices.

Data collected from print devices are available in "Accounting => Device Job Accounting Logs", and monthly summary reports based on those data are in "Accounting => Print Usage Report"

PSV Server can periodically communicate with Active Directory, Print Devices, Print Agents, and other PSV Servers, and all this is managed form "Services => Data Synchronization" tool.

Options => Users

Access to PSV web application features is controlled by logging in to the web application. Users that are members of the "Administrators" group have access to all program features. Other users have access to only selected program features. User authentication can be configured to use Windows authentication (Active Directory when computer is in a Domain), or username and password can be stored in the PSV database. This choice of authentication method is done from the PSV Setup tool.

Managing PSV Users is done from **Options**, **Users** menu.

Accounting => Accounting Options

The Accounting system in PSV requires some configuration to make full use of the feature. This is done on the Accounting Options screen.

"Mono Page Price", "Color Page Price", and "Scan Page Price" specify the unit cost for reporting the cost in addition to the page counts in the Print Usage Report.

The "Valid Ports" filed is used to specify which ports to collect print logs from. It can be used to prevent print logs associated with custom print queues from being reported. Printing to a file would be an example. In most cases, you want to include "IP_" and "USB" in the "Valid Ports" field. This indicates you are interested in print logs from network printers and USB-connected printers respectively.

"Color Quota", "Mono Quota", and "Scan Quota" define the default maximum number of pages that can be printed or scanned in a month by individual users. These default quotas are used when no quota has been assigned to an individual.

The "ServerID" is used to identify a particular PSV instance. This ID is sent to the devices that are being managed by PSV server. A device can only be managed by one tool at a time, and devices use this ID to prevent other tools from accessing it.

Which models should be considered color models and which should be considered mono models needs to be configured. The "Color Models" and "Mono Models" edit fields are used for this purpose. The models in each field should be separated by a comma.

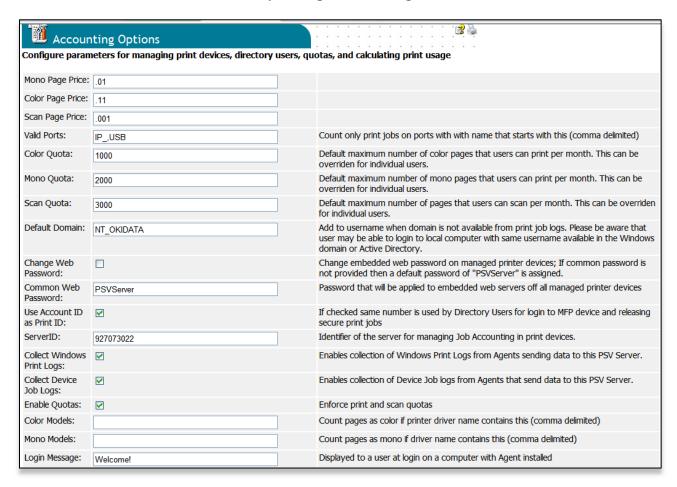
The "Color Models", "Mono Models", and "Valid Ports" fields affect Windows job logs only. Logs received directly from a device are not affected by these settings.

Several other options can also be configured on the Accounting Options screen.

- Message to be presented to user on the computer where PSV Agent is installed at login.
- Message to be presented to a user if he/she has exceeded his/her print quota.

- (Optional) Default Color and Mono print quotas, used when a print quota is not defined for an individual user.
- Default Windows "Domain" to be added for device job logs.
- To change web password in Managed devices when they are synched with PSV Database. If this checkbox is checked, device password will be changed to the password specified in the "Common Web Password" field.
- To allow same number to be used for logging in to Device and releasing secure Print job.

The **Save** button saves the currently configured settings to the database.

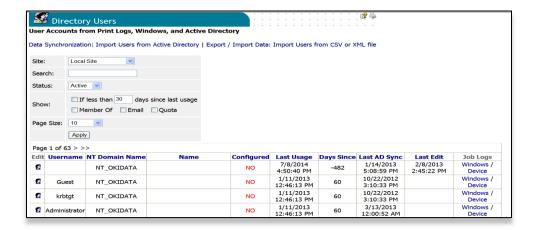


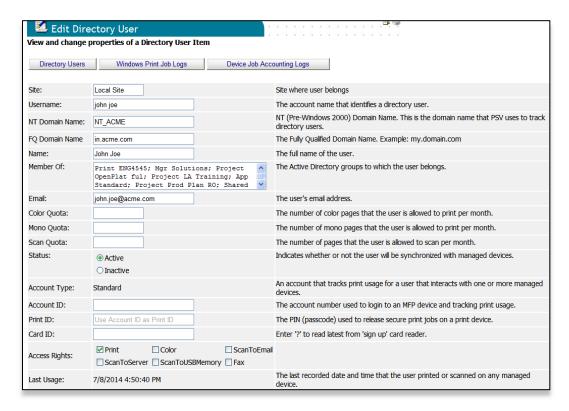
Accounting => Directory Users

The PSV Accounting system maintains a separate database table of users called "Directory Users". This set of users is distinct from "PSV Users". Accounting users are anyone who will be using one or more print device and are typically imported from Active Directory. While the number of "PSV Users" is usually relatively small consisting mostly of network administrators and operators, the number of "Directory Users" may be quite large.

The "Print Agent" gets the "Directory Users" from its designated PSV Server. Print Agent is periodically synchronized with PSV Server to ensure its list of Directory Users is current. When the Agent is running on the same computer as PSV Server, that synchronization is done immediately. Changes to Directory User data is immediately sent to the local Agent.

When the Print Agent is running on a separate computer, users are automatically synchronized at fixed periods or by requesting an update using the Agent Setup tool.





Adding new Directory Users

Each person using the Print Agent solution must have an account set up in the PSV database.

Sync with Active Directory

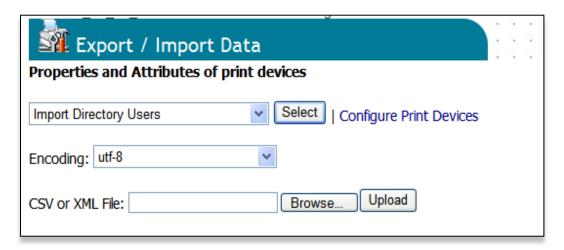
Relevant user data such as name, account ID, and print ID can be imported from Active Directory using PSV. From the Services menu select "Data Synchronization." Then click the "Sync AD Now" link.

Import from a CSV File

If card readers are being used for user authentication, the card ID numbers should ideally be included in the CSV file. The file is then imported into PSV by selecting "Export / Import Data" from the Tools menu.

To find expected format of data for "import", use the "export" option first to generate a sample file.

- 1. Select "Export / Import Data" from the Tools menu.
- 2. Select "Import Directory Users" from the drop-down list.
- 3. Select the appropriate Encoding option from the dropdown list.
- 4. Click the Browse button to select the CSV or XML file containing the Directory User data.
- 5. Click the Upload button to import the data.



Manually Adding Users

Users can be manually added to PSV by selecting **Directory Users** from the Accounting menu. Then, click the **Add Directory User** button.

To be able to use "Keypad" authentication and in cases where "full print device management" is configured, each user must have an "Account ID" assigned. Account ID needs to be unique for each user.

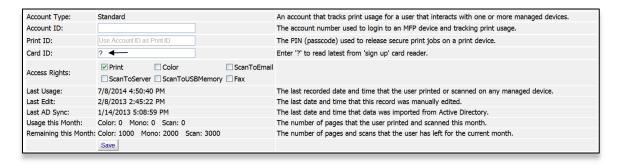
To be able to use "Card Reader" authentication, a "Card ID" has to be assigned to a user. When the Print Agent is running on the same computer as the PSV Server, the Card ID can be scanned directly from a designated card reader and then automatically populated on the "Edit Directory User" page. In the SPConfig.xml file, the <CardReader> entry must have the signUp="true" attribute.

The procedure is:

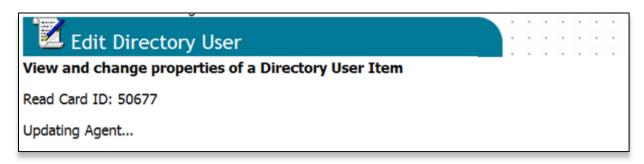
Select a user from the Directory Users page by clicking in the Edit column of that user

Let the user scan the card on the designated card reader

• Enter question mark ("?") in Card ID field, and click "Save" button at the bottom of the "Edit Directory User" page



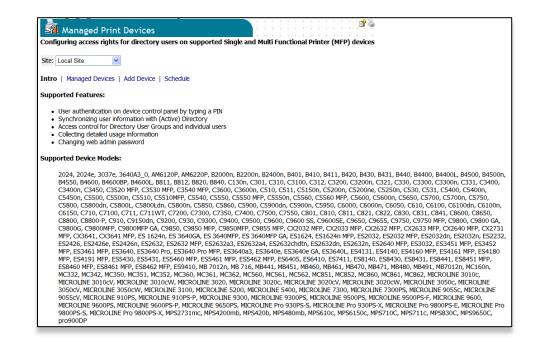
The Card ID is then obtained from the reader, saved to database, and synchronized with the local Agent.



Accounting => Managed Print Devices

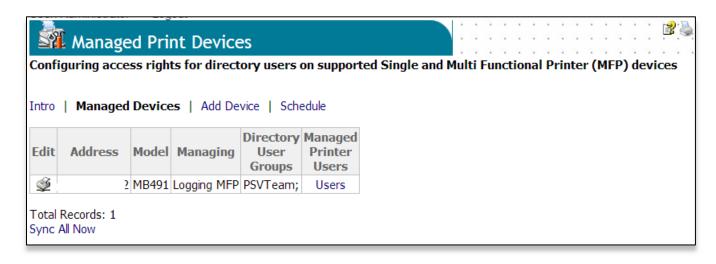
A managed print device is one that has been configured by PSV for accounting. The option to collect job logs or to control printer access is first defined in PSV server. The device is then configured with the desired setting. This feature is available only for a select group of printers.

The list of supported printers is displayed in the Intro tab.



The Managed Print Devices page lists the devices that are currently being managed by PSV. You can change the configuration of a specific managed device by clicking in the Edit column of the appropriate row. To add a printer to the list of managed devices, click the "Add Device" link. Ensure that the device is up and is not in error state which will inhibit managing the device.

Clicking the **Sync Now** link causes the device to be synched with the configuration data in the PSV Database. Configuration changes made in PSV do not take effect in the device until they are synched using Sync Now. The synchronization can be scheduled by clicking the **Schedule** tab.



PSV EE supports several options with respect to managing printers. Logging is the most basic option. When logging is enabled, print logs are collected from the device so that print usage can be tracked. No restrictions on printing or copying are enforced. Logging

MFP is the same as Logging except the user must login through the MFP console using an account ID in order to copy. There are no restrictions when printing. When "full control" accounting is configured on a compatible OKI print device, each print job needs to include an "AccountID" the print device has been configured to accept. If the AccountID is not present or is not recognized as valid by the device, then the print job is ignored.

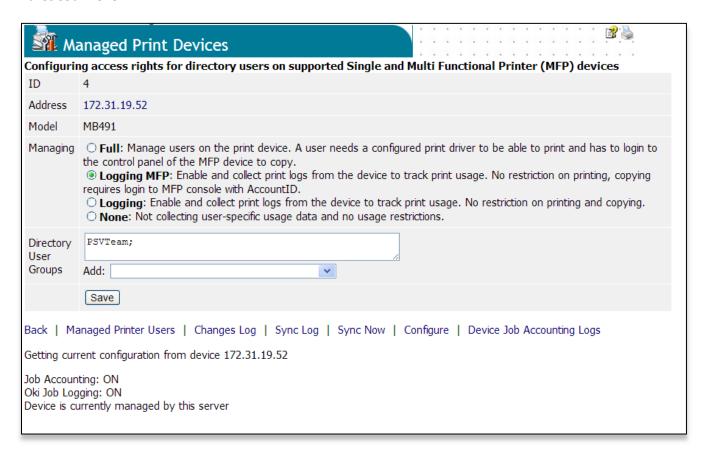
Adding AccountID to print jobs can be done in two ways:

- Installing and configuring "Job Accounting Client" tool on each computer.
- Configuring a print server computer with PSV Agent SP (Secure Print).

This page shows the current device management settings for a specific device. "None" is used to indicate that the device should not be managed. If the PSV database has been synched with Active Directory, the list of user groups will be shown in "Add" dropdown. A Device can be assigned to a number of such groups, by selecting that group and clicking the "Save" button.

After the desired configuration options have been set, click the "Save" button. This saves the current device settings to the PSV database. Saving the settings to the database does not mean the device is configured with these settings.

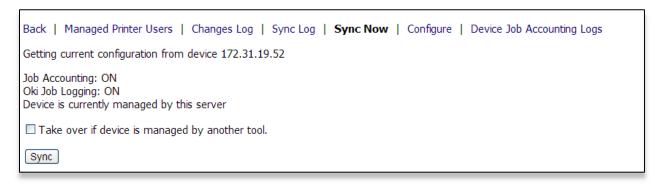
Note that the device management settings currently set in the device are shown at the bottom of the page. If the device is currently managed by any other PSV server, it will be indicated here.



After the desired options have been saved in PSV, the configuration still needs to be loaded to the print device in order to take effect. You have the opportunity to do this immediately after saving the configuration for a particular device. A "Sync" button will be shown at the bottom of the page. Clicking this button causes the device to be synched with the configuration data in the PSV database.

Print devices maintain information regarding what server it is currently using, and will prevent other tools from accessing it. PSV provides a way to "take over" a print device managed by another server.

Select the "Take over if device is managed by another tool" checkbox prior to clicking Sync.

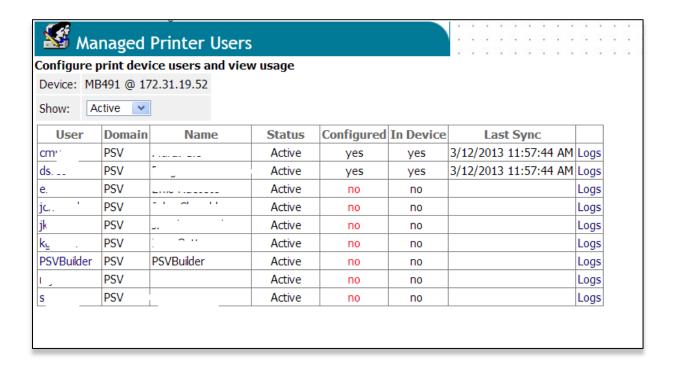


Clicking the **Managed Printer Users** link shows the list of users who have been configured for the device. A device must be configured with user data if Full accounting control is used.

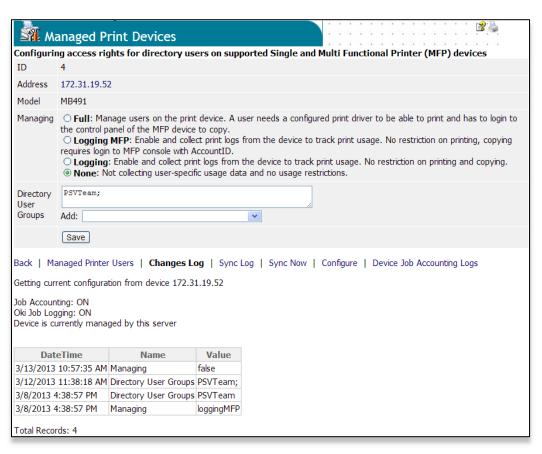
The "Configured" column indicates if an Account Number is assigned to the user.

The "In Device" column indicates if user has been synched with and is present in device.

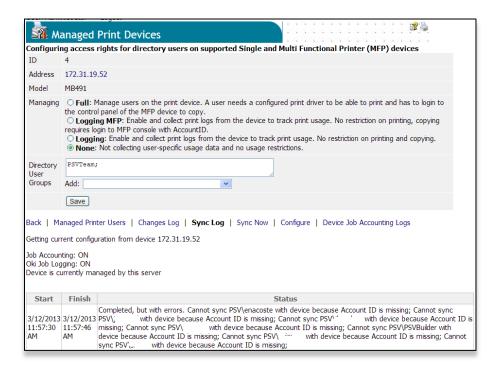
"Last Sync" shows when the account was last synched with device.



Clicking the **Changes Log** link displays a log of configuration changes made to the managed device.



Clicking the "Sync Log" link displays a history of when job log data was retrieved from the device.

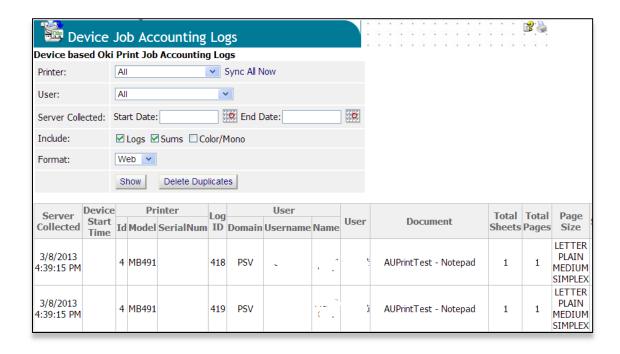


Clicking the **Sync Now** link causes the device to be synched with the configuration data in the PSV Database. Configuration changes made in PSV do not take effect in the device until they are synched using Sync Now.

Clicking the "Configure" link takes you to the Configure page. From here you can configure the password for the device provided the current password is present in the PSV database.

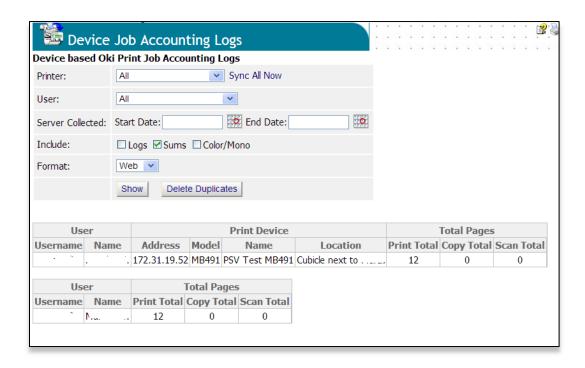
Accounting => Device Job Accounting Logs

The Device Job Accounting Logs page provides reporting on PSV accounting data. The user can filter the data based on printer, user, and date.

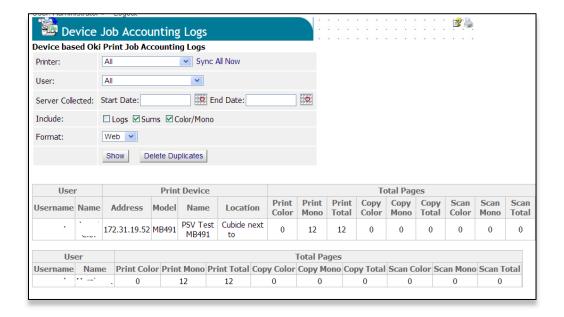


When the "Logs" option is checked, the report provides detailed data on each print job.

When the "Sums" option is checked, the report includes two tables of data. The first shows the print, copy, and scan totals for each user broken out by device. The second shows the print, copy, and scan totals by user.



When the "Color/Mono" option is checked, the same two data tables are generated, but the copy, print, and scan values are broken out between color and mono pages.

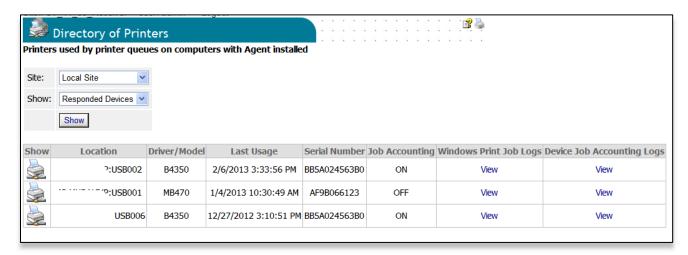


Accounting => Directory Printers

PSV server makes a list of all "Directory Printers" that is based on the Windows print queues. This is a basic assessment of printing devices based on the printer queues defined on computers where the Agent is installed.

Based on the information from the printer queues, the Agent attempts to communicate with print devices. The data received from these devices is sent to PSV server and saved to the database. The server can then determine which are "real" devices currently "responding". Which are potentially "valid" devices with valid port types (i.e. USB or IP, based on configuration on "Options" page), and which most likely are custom print queues (configured to "print to file" for example).

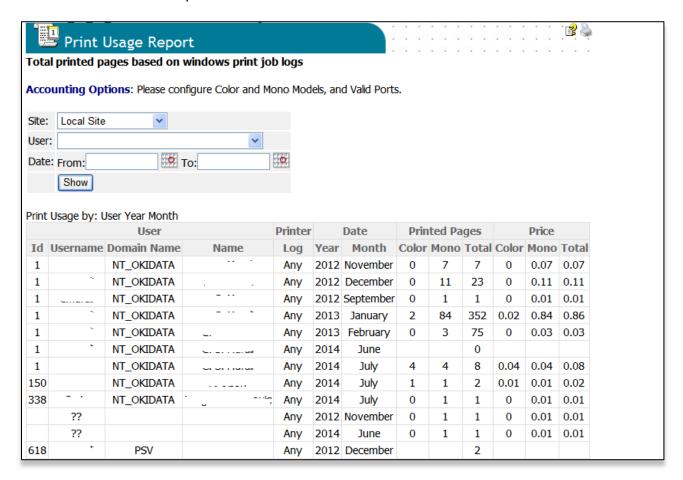
For each device there is a column "Job Accounting" that is ON or OFF for compatible Oki devices. Links to Windows and Device job logs for each printer are provided.



Accounting => Print Usage Report

PSV collects accounting data from multiple sources. The monthly summary reports based on the accounting data collected from printing devices in Device Job Accounting Logs is shown in this report. If the unit costs for color and mono pages are entered in the Accounting Options, the price is also shown. The report can be filtered for individual users or for specific periods of time.

Since there are two separate sources of print logs (Windows logs and device job logs), the program determines if the device job logs are available for a given printer. If they are, then the device job logs are used for that printer. Otherwise Windows logs are used. Note that Windows Job Logs are available only if PSV Agent is installed on a Windows XP or a Windows 2003 computer.



Services => Data Synchronization

In most enterprise environments, the user list is maintained by the IT Department usually in Active Directory. Computers running PSV can be configured to synchronize the user list with Active Directory.

Managed Device Data Synchronization

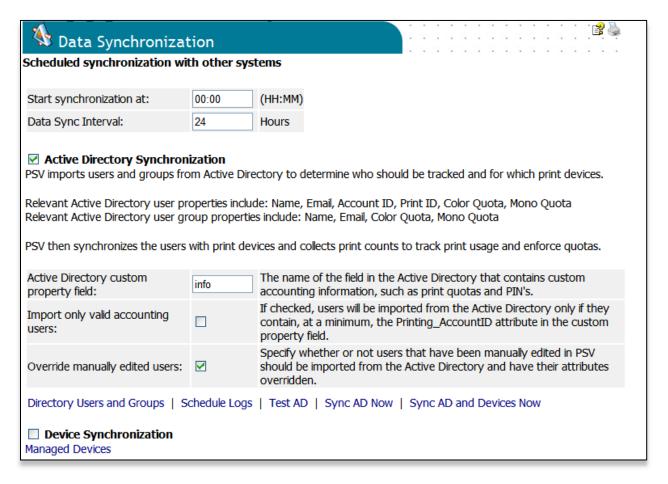
Devices configured to be managed need to be periodically synchronized with the PSV database. Data is synchronized both from the device to PSV and from PSV to the device. First, the current usage data needs to be collected from the devices and stored in

the PSV database. Second, changes to configuration settings and directory users need to be sent to the managed devices.

To facilitate the setup of Directory User information, the data can be imported from Active Directory. This can be done automatically at scheduled intervals or only upon demand. The "Sync AD Now" link will synchronize Directory User data with Active Directory. Click the "Sync AD and Devices Now" to synchronize Directory User data with Active Directory then configure managed devices with that data.

"Custom" fields are stored in one Active Directory field as name=value pairs, one per line. The default field name is "info", and an Active Directory administrator can create a custom field in Active Directory for this purpose.

The Data Synchronization screen is accessed through the Services menu.



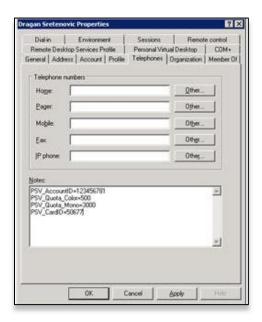
Data synchronization is scheduled using the "Start synchronization at" and "Data Sync Interval" fields. The "Start synchronization at" field defines the starting time to run synchronization. It is expressed in 24-hour notation with midnight being 00:00. The "Data Sync Interval" field defines how frequently synchronization will be done during the day. If the value is 1, then synchronization is done once per hour. If the value, is 24, then synchronization is done only once per day.

Synchronization with Active Directory will only be done if the "Active Directory Synchronization" checkbox is checked. Likewise, configuration and user data will only be sent to managed devices if the "Device Synchronization" checkbox is checked. The "Device Synchronization" checkbox must also be checked in order for print logs to be collected from managed devices.

User Info from Active Directory

If additional user data is to be configured for the Active Directory users, IT administrators can use the Windows Server tools.

Editing user data in Active Directory (AD) can be done using the standard Windows Server "Active Directory Users and Computers" tool. Right click on a selected user and select "Properties" from the menu. To make configuration easy, the default is to store accounting information into an existing "info" text field of the "user" object. This is visible on the "Telephones" tab of user properties in AD. The field is labeled "Notes".



A custom AD field can also be used, for network admins that are familiar with using custom AD schemas. In such cases the name of the AD field needs to be specified on PSV Data Synchronization page (Active Directory custom property field).

The format of data in the AD field is Name=Value with each pair on a separate line. Not all name-value pairs shown below are required. For example, you could specify only the value for PSV_AccountID.

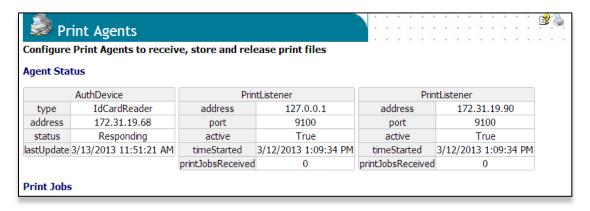
PSV_Quota_Color=1000 PSV_Quota_Mono=2000 PSV_Quota_Scan=3000 PSV_PrintID=1234 PSV_AccountID=123456789 PSV_CardID=56789 PSV Status=0

Services => Print Agents

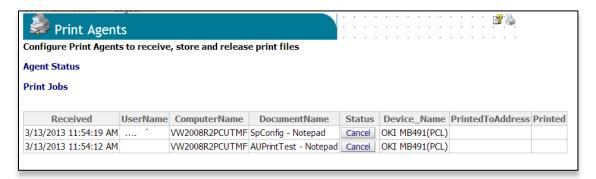
When PSV Agent is used to authenticate and manage the print devices, the status of the Agent can be viewed from PSV server.

When the Agent is running on the same computer as PSV Server, the current status of the Agent and management of recent print jobs can be done by selecting "Print Agents" from the "Services" menu.

The "Agent Status" information includes the status of all configured authentication devices and the "Print Listeners" that receive incoming print jobs.



Clicking on "Print Jobs" provides a list of all print files received in the last 24 hours. You have the option to Cancel print jobs that are not printed yet.



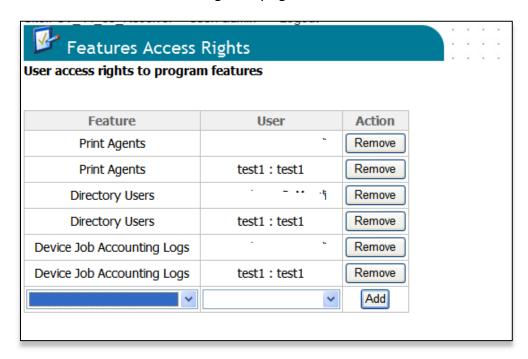
When the Agent service is not running an error message is displayed. If the Agent is not installed on the same computer as PSV Server, then no options are visible on this page.



Options => Features Access Rights

In enterprise environments, all the print management jobs may not be the responsibility of the IT administrator. The IT administrator can delegate some of the tasks to others without providing complete administrator access to PSV.

Some features available only for PSV users that are members of the Administrators user group could selectively be made available to other PSV users. Select "Options | Features Access Rights" from the menu. It is possible to "Add" a user to a selected feature or "Remove" them from that feature using this page.



After this, the selected users will see new options in the program menus after logging into PSV.

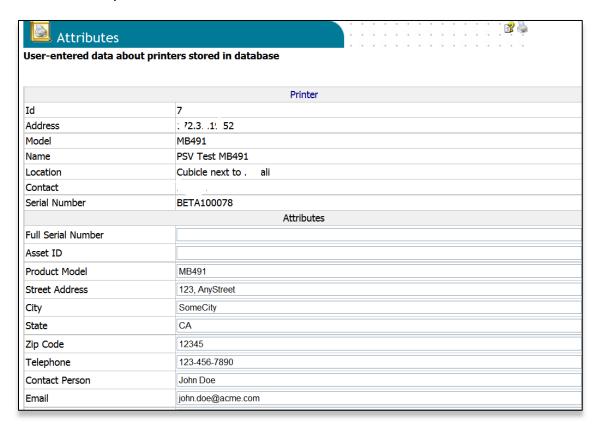
Adding Device Attribute Data

PrintSuperVision allows a user to attach attributes to a device to help locate it, to determine who is responsible for maintaining it, etc. The added attributes are not reported by the device, so as a user you must manually enter data into the attribute fields.

The attributes can also be added by using Import/Export attributes from "Tools | Export/Import Data" screen. The attributes can also be added to PSV when you use "Import Printer Addresses & Attributes" option in Printers menu.

To add attribute data

- 1. Select **Printers** from the main menu
- 2. Select **Printers** from the drop down menu
- 3. Click on any status icon (printer icon in the left margin) to link to a print device's status page.
- 4. Click the **Attributes** button and click **Edit**
- 5. Enter data in any of the Attribute fields and click **Save** at bottom of the screen.



The user-entered attribute information can be included in several reports if the same Attributes are selected from the Configure Properties and Attribute section listed under Reports in the main menu.

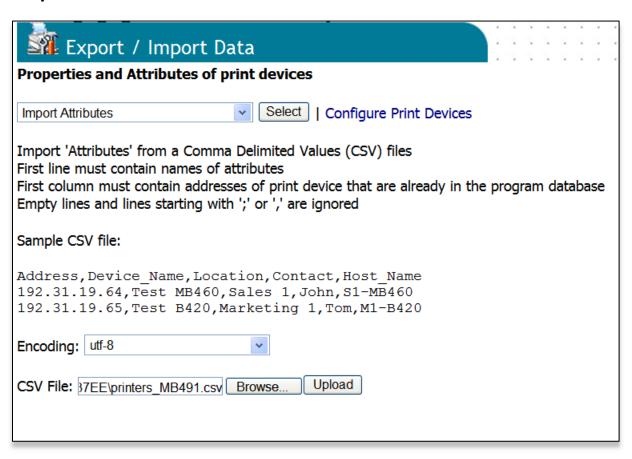
Note: An Admin can also import a CSV file that already contains the desired attributes associated with many devices at once.

To import a CSV file:

- 1. Click **Printers** from the main menu
- 2. Select Import Printers and Attributes
- 3. Browse for an appropriate CSV file, Indicate how the fields are delimited and click **Import**.

Another way to import the CSV file is:

- 1. Click **Tools** from the main menu
- 2. Select Import / Export Data
- 3. Select **Import Attributes** from the dropdown list
- 4. Browse for an appropriate CSV file, indicate how the fields are delimited and click **Upload**.



Monitoring Locally Connected Devices

PSV allows you to monitor Oki devices that are connected to laptops or desktops via USB rather than connected directly to the network.

Local monitoring is achieved by installing the PSV Agent on each client that has a locally connected Oki device. The agent consists of a Windows Service that monitors local print devices connected through USB ports. The PSV Agent periodically collects management data from the device and sends it to a PSV Enterprise server. The agent reports alert conditions, supply levels and page counts just as if the device was directly connected to the network.

The agent supports all popular Windows operating systems including Win XP, Vista, Windows 7, Windows 8, Server 2003, Server 2008, Server 2008 R2 and Server 2012.

Introduction to PSV Agent

PrintSuperVision Agent "USB" Edition supports monitoring the status of compatible print devices connected to a computer via an USB port. Print devices connected to a USB port are continuously monitored so the Agent detects status changes almost immediately as they happen. Device status can be written to a log file as it is received. Status updates can also be communicated to PSV server by the Agent using HTTP.

The Agent USB runs continuously as a Windows Service and can be used to:

- monitor the status of USB-connected print devices
- collect and store status data as it appears in the device
- communicate device status with PSV server

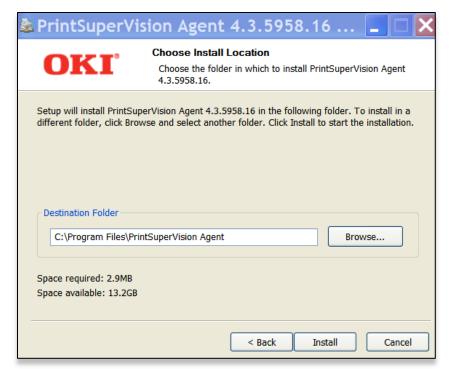
Main Features

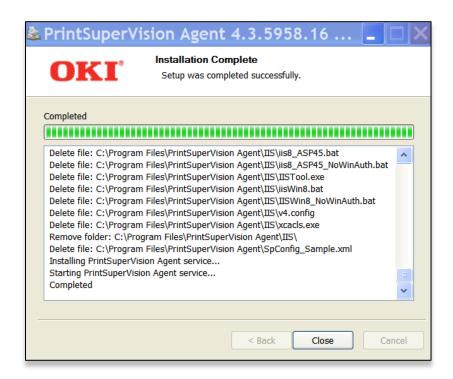
PSV Agent is a tool that can help monitor print devices connected to local USB ports. This tool is intended to help administrators, not the end-users. It is not a "local status monitor" tool.

PSV USB Agent Installation

Double click on the PSV USB Agent install file. Follow the on screen instructions to install the PSV USB Agent.







Once the installation is completed, click on "Close" button to launch the PSV USB Agent Setup program.

Configuring PSV USB Agent

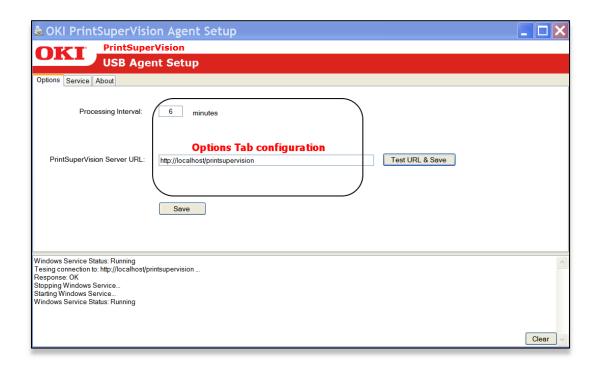
The Setup program is where various program parameters are set. The Setup program is automatically launched by the installer. The Setup program is also available from the Start menu in the PrintSuperVision Agent program group.

Options Tab

The Agent is able to communicate device status and additional printer data with the PSV server application. The configuration required to enable this is done on the Options tab.

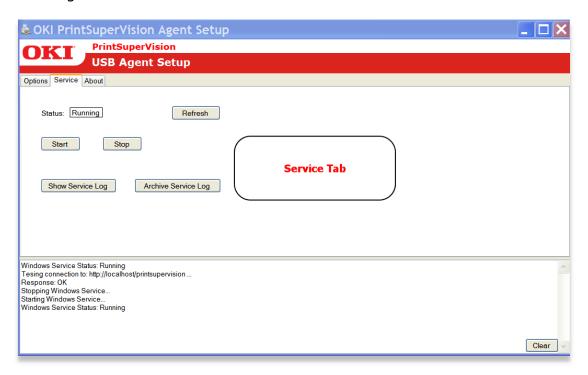
The Options tab contains a field to specify the Processing Interval. This setting controls how frequently the Agent updates the list of USB-connected devices it is monitoring. It will check if any new devices have been connected or if any previously connected devices are no longer responding. If you connect a new device to the machine where the Agent is running, and you want the status to be immediately monitored, then you will need to stop and restart the service.

The URL of the PSV server is entered in the PrintSuperVision Service URL field (for example: http://11.22.33.44/printsupervision/). This is the URL the Agent will send device data to. The connection with the server can be verified by clicking on the "Test URL & Save" button. The results of the operation are displayed in the message window at the bottom of the Setup program.



Service Tab

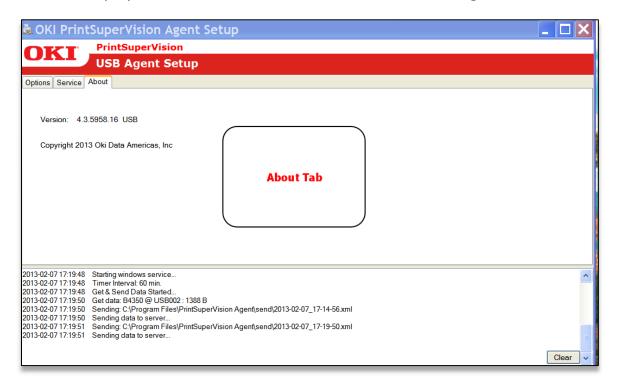
The Service tab allows you to stop and start the Agent service. The current status of the service is shown as either Running or Stopped. "Refresh" allows you to view the current status of the Agent service.



Click on "Show Service Log" to view the log of the actions taken. The service log can be archived by clicking the "Archive Service Log". To clear the data shown in the bottom part of the Agent, click on "Clear".

About Tab

The About tab displays version and edition information about the Agent.



Installing PSV USB Agent From a Command Line

PSV USB Agent installation can be automated by running the installer from a command line. When this is done, the required program parameters are provided through command line arguments. The installation completes without any additional user interaction. The following command line arguments are supported:

/URL= Specifies the URL of PSV Server. This is the URL the Agent will send device data to. The URL must be enclosed in double-quotes -

/URL="http://123.45.67.89/PrintSuperVision". This argument is required.

/INTERVAL = Controls how frequently the Agent updates the list of USB-connected devices it is monitoring. This argument is optional. If not provided, then 60 is used by default.

/S Runs the installer in silent mode. This argument is required for the installer to run without any user interaction.

Installation can be automated using network login scripts or some other remote desktop management tool.

This screenshot illustrates the command line syntax for installing PSV Agent USB.

```
C:\Users\Administrator\Downloads>OKI-PSV-USB-Agent-4-3-5958-16.exe /URL="http://
172.31.19.81/PrintSuperVision" /INTERVAL=45 /S
C:\Users\Administrator\Downloads>_
```

Uninstalling PSV USB Agent

The Uninstall option is available from the Start menu in the PrintSuperVision Agent program group. The program can also be uninstalled from Control Panel | Add or Remove programs.

Installing the PSV Agent Using PSV Director: Option 2

The Agent can also be installed remotely using the **PSV Director** application. PSV Director is a tool for Windows domain administrators that remotely installs, upgrades, uninstalls, monitors, and configures the PSV Desktop Agent on computers within a domain.

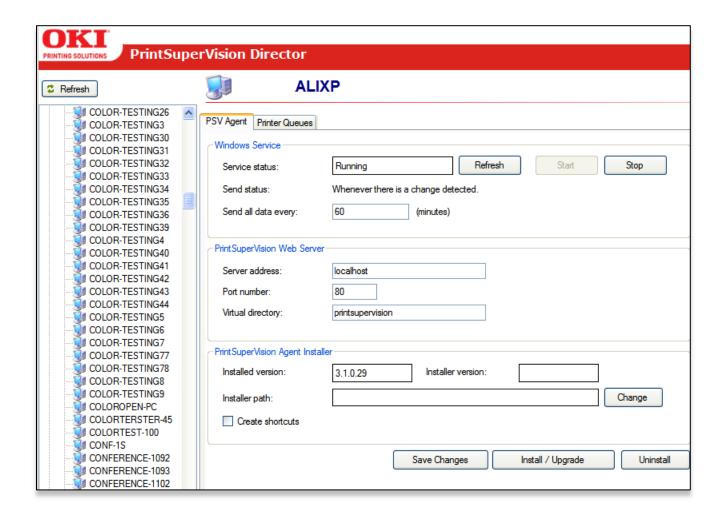
The Director can also collect information about printer queues, drivers, and ports on either a single computer or all computers in a domain.

If the PSV Director application was selected for installation when you installed PSV Enterprise, the application will be located in: Start / All Programs / PrintSuperVision / PrintSuperVision Director.

1. Click PrintSuperVision Director and open the application

Navigating PSV Director

The tree view on the left side of the main window lists all visible domains and computers in the Active Directory. To view an up to date list, click the **Refresh** button, located directly above the tree view. Alternatively, right click a domain and click refresh, to update just the computers within that domain.



PSV Agent Tab

This tab indicates whether or not the PSV Agent is installed on the currently selected computer. If it is installed, you can check the service status and make configuration changes. Additionally you may install, upgrade, or uninstall the PSV Agent from this tab.

To install the PSV Agent using the Director:

- 1. Indicate the interval of time that the agent should contact the PSV Server
- 2. Enter the IP address of the PSV Server that the Agent will contact, along with the appropriate port number and Virtual Directory name
- 3. Click the **Change** button and browse for the Agent Installer which is an .exe file
- 4. Click the Install / Upgrade button to install the agent on all selected clients

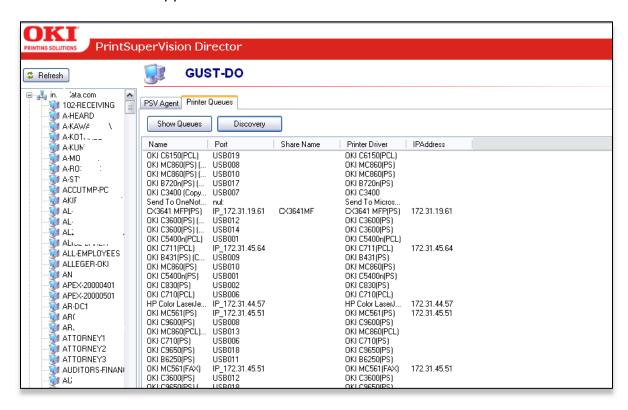
After installing the Desktop agent you can return to the same PSV Director screen to upgrade the Desktop Agent or make any necessary changes.

The Print Queues Tab

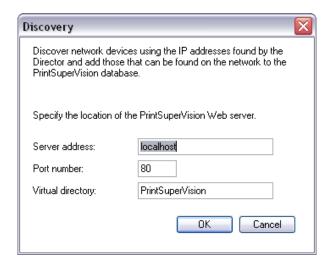
The Print Queues feature in PSV Director is designed to display available print queues from all or individually selected client computers. It also provides an alternative method to discover devices.

Click the **Show Queues** button to refresh the list

Click the **Discovery button** to discover the network printers on this machine. Only HTTP communication is supported for this feature.



To add devices to the PSV database, enter the location of the PSV server, the port number and the virtual directory name:



Click the **OK** button

PSV Director will communicate with the PSV Server and add newly discovered devices to the PSV discovery database. It will also indicate if a device is already in the database.

Note: The PSV Director relies on a service packaged with Windows, called the "Remote Registry Service". In Windows XP and Windows Server 2003, this service is enabled and started by default.

In Windows Vista, Windows 7, Windows Server 2008/R2, Windows 8, Windows Server 2012, the service is not started by default. So in order for the PSV Director to be able to access computers running these operating systems, this service must be started on each of the remote computers.

It is recommended that the "Startup Type" for this service be set to "Automatic" on each of the client computers.

PSV Director is just one tool that can be used to "push" the Agents out to remote clients. If your IT organization uses your own tools to install and update client computers, you can certainly use those tools to install and maintain the PSV Agent as well. The Agent is not included in the PrintSuperVision Enterprise Edition installation package but can be downloaded separately from www.okidata.com

PSV Assistant

For Parallel Port connected Oki devices you will need to use the PSV Assistant. The Assistant is available as a download from www.okidata.com.

The Assistant is a separate application much like PSV Agent that allows you to view printer attributes and supplies status from locally connected Oki print devices that are not directly connected to the network.

PSV Assistant supports the following Windows operating systems: Windows XP, Vista, Windows 7, Server 2003, Server 2008 and 2008 R2.

The Assistant is installed on users' desktops or laptops and periodically sends supplyrelated data such as page counts, toner and drum life status to the PrintSuperVision Enterprise server.

PSV Assistant can be installed individually at each desktop/laptop or can be pushed to each PC by using command line installation. To install PSV Assistant silently, use the syntax listed below.

Note: PSV Assistant requires providing the URL of the PSV server as a command line parameter during installation.

<assistant.exe> /U=<serverurl>

For example:

```
/" (ex. /U="http://123.45.67.89/PrintSuperVision/")
```

/S Silent install mode

/N Do not create shortcuts, including a desktop icon and start menu link (shortcuts are created by default).

/I Data collection interval in minutes (default value is 60).

An example is:

```
C:\My Documents\PrintSuperVision 3.7>PSVAssistant-EE-1-6-0-66.exe /U="http://localhost/printsupervision/" /N /I=61
```

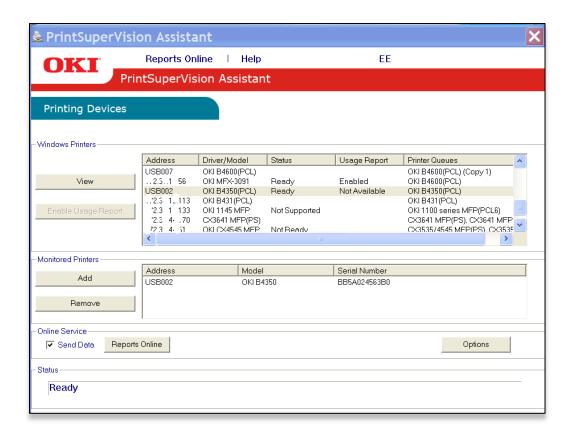
If you are not installing via command line instructions and you are installing locally, follow these steps:



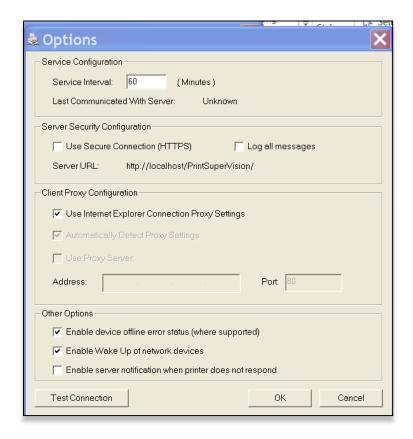
Click **Next** or check the appropriate boxes for available options

After installation is complete, open the PSV Assistant application and highlight the print device that is most often used from the list of available device drivers.

Click **Add** in the Monitored Printers section. Your device will be added (you can remove the device at any time by clicking the Remove button.

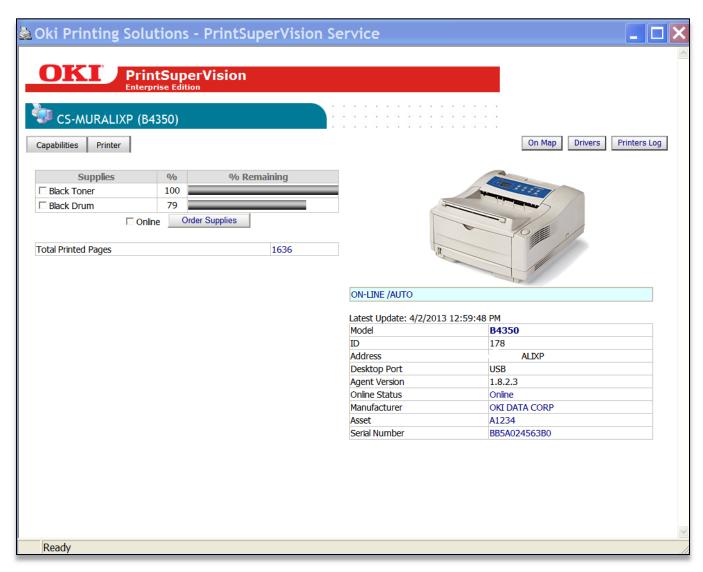


Click the **Options** button



- 1. Select the desired interval level which controls how often PSV Assistant contacts the PSV Server.
- 2. Set the option to use HTTPS if desired
- 3. Click the option to log (save) all messages if desired
- 4. Select the desired client proxy configuration
- 5. Click OK

If you allow your users to access PSV Assistant from their desktops, they can click the **Reports On-Line** button to view supply status, page counts, etc.



Performing Day to Day Tasks

Depending on the degree of automation set up during initial configuration, PSV can essentially run in the background on autopilot and only alert you when a device needs attention, or to deliver reports. But there will always be situations where you need to access PSV to check the status of a device, check the level of supplies or to manually run reports.

Viewing Device Status

To view a list of devices that was previously discovered:

- 1. Select **Printers** from the main menu
- 2. Click Printers, My printers, or Near Me.

Selecting "Printers" provides a list of all discovered devices. "My printers" displays only the devices that you previously added to the My Printers group.

Selecting "Near Me" automatically displays the print devices that share similar IP addresses with the computer you are using to access the PSV server. The Near Me option cannot be customized.

When viewing a long list of devices, click the Refresh button to obtain the most recent status information on all devices displayed.

You will notice after clicking Refresh, a teal color moves from line to line indicating that the device status is being refreshed. Notice too that the printer icons in the left margin are now color coded to quickly determine the status of the device.

- Green indicates that the device is running fine, there are no Alerts and no supplies need to be ordered
- △ Yellow indicates that an alert has been received, an error has been detected or a lower level (less critical) action needs to be taken
- Red indicates that a critical error or serious Alert has been received and immediate action is required
- The information icon indicates an event has occurred, such as toner or drum replacement, cassette drawer is open or the device is printing. Generally no action is required when the information icon is displayed

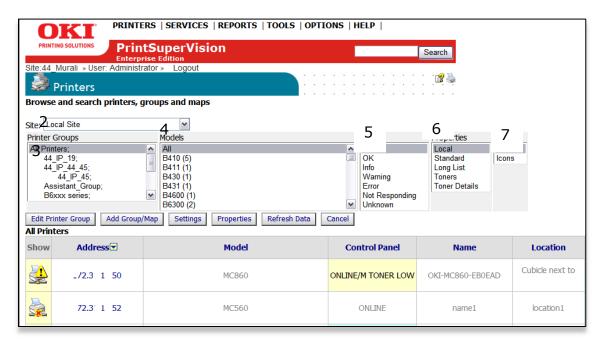
The "no access" icon indicates that the device is disconnected from the network, or is not responding

At any time while viewing the list of devices you may click on the status icons in the left margin and link directly to the status page of the individual device.

Quick Search

A convenience feature added to PSV 4.0 allows quick access to all PSV sites, groups, individual devices and status codes from one main area. You also have the option to select several predefined sets of properties as well as how the information is viewed.

1. Click **Printers** from the main menu and select **Printers** from the drop down box.



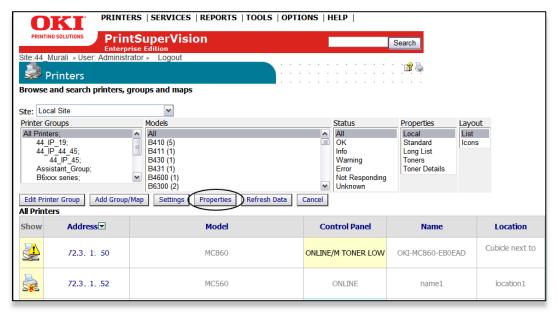
- 2. Select the appropriate PSV site from the drop down box
- 3. Click **All Printers** or the appropriate group name. The devices associated with that group are instantly displayed. You may also use the Search option to locate a group.
- 4. Click **All** to generate a list of all model devices within a group or click on the individual model name to show just that device
- 5. Click **all** to generate a list of all status codes, or select an individual status code for individual devices that are currently displaying that status code
- 6. Select the desired set of predefined device **Properties** to display or select Local for only the properties that you have previously indicated
- 7. Click **List** or **Icons** depending on your viewing preference

Note: You may also choose multiple selections at a time by using the standard Windows click sequences (hold down Ctrl key and click).

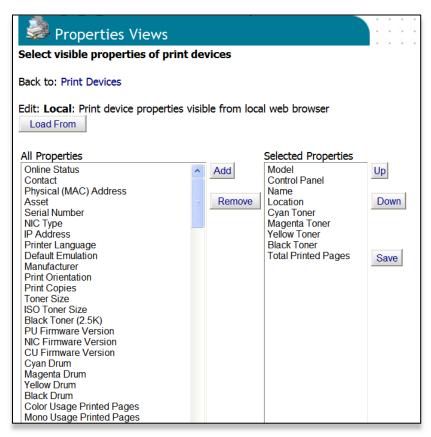
Changing the Device Properties Displayed

At any time, you may customize the device properties displayed on the "Printers Page", with the exception of address which is always displayed. To add or subtract properties:

1. Select **Printers** from the main menu and select **Printers** from the drop down menu



- 2. Click the **Properties** button
- 3. Select the device properties that you wish to display from the "All Properties" list and click **Add**

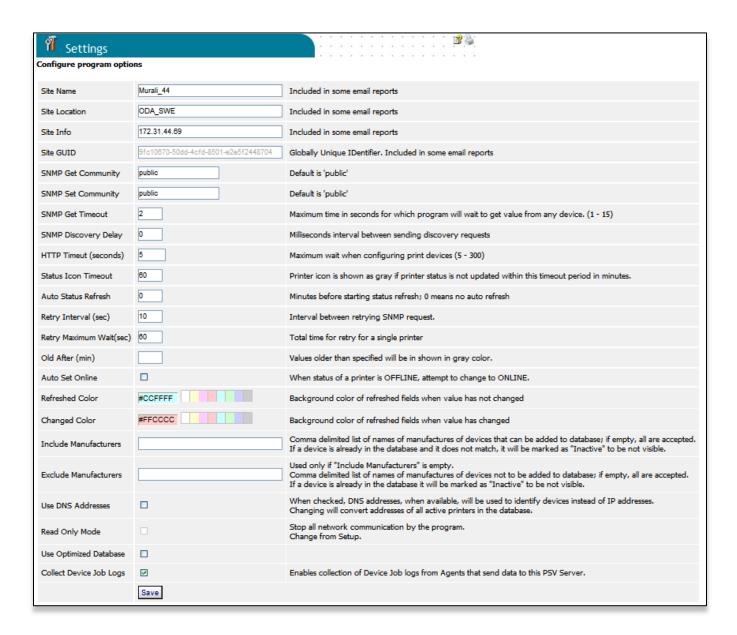


- 4. Reposition the order of the properties according to the viewing order by selecting the property and clicking the Up or Down buttons
- 5. Click **Save** to save the "Local" set of properties

Additional Configuration Settings

The **settings** page provides several configuration options explained below:

- 1. Click **Options** from the main menu and **Settings** from the drop down box
- 2. Make appropriate settings
- 3. Click Save



Site Information: Site information such as Site Name, Location are included in some email reports

SNMP Get Community: Is the name of the SNMP Get Community. Default is public.

SNMP Set Community: Is the name of the SNMP Set Community. Default is public.

SNMP Get Timeout: Is the maximum time PSV will wait in seconds to obtain a value (via SNMP) from any device. Select 1 to 15 seconds

SNMP Discovery Delay: When discovering a large number of addresses, depending on the network bandwidth restrictions, it may be preferable to add a SNMP delay between discoveries using SNMP Discovery Delay setting.

HTTP Timeout: Sets the time delay between HTTP requests sent by PSV when "Configure Print Devices" feature is chosen.

Status Icon Timeout: The Printer status icon will be displayed in gray if the device status has not been updated within this timeout period in minutes.

Auto Status Refresh: The number of minutes PSV waits before starting a status refresh when viewing a list of devices. 0 = no auto refresh

Retry Interval: Sets the interval time between SNMP request retries

Retry Maximum Wait: sets the time after which the SNMP request will not be sent again.

Old After: Values after the specified interval will be shown in gray.

Auto Set Online: Checking this box instructs PSV to try to switch an Oki device from Offline to Online during auto status refresh. This feature is only available for select Oki devices. **Note:** The Oki device has to be set to SNMP v1 to support this feature. The setting is located in the device's web page.

Refresh Color: When viewing a list of devices (by clicking Printers from main menu, then Printers from the drop down box), the background color of refreshed fields will be displayed in the color you choose when the value of the field **has not** changed. Set to White if no colors are desired.

Changed Color: Sets the background color of refreshed fields when the values of the fields **have** changed. Set to white if no colors are desired.

Include Manufacturers: Allows you to include only devices from specific brand names when generating a list of devices or during discovery. In other words, it filters out all devices except from the manufacturers named.

Exclude Manufacturers: Allows you to selectively exclude devices based on brand name when generating a list of devices or during discovery.

Use DNS Addresses: Identifies devices using DNS addresses, when available, instead of IP addresses. Activating this feature will convert IP addresses to DNS addresses on all active printers in the database.

Read Only Mode: Stops all network communications from PSV. This can be set or reset from PrintSuperVision Setup utility.

Collect Device Job Logs: Check this option to collect Device job logs.

Changing Languages

The language selected in PrintSuperVision can be changed at any time without the need to install language-specific versions of the application. To change language

- 1. Select **Options** from the main menu and **Locale** from the drop down box
- 2. Click the appropriate radio button
- 3. Click the Save button

Caution: The new language will be displayed as soon as the **Save** button is clicked. Take precautions to know how to get back to your native language if you are unfamiliar with the language just selected.

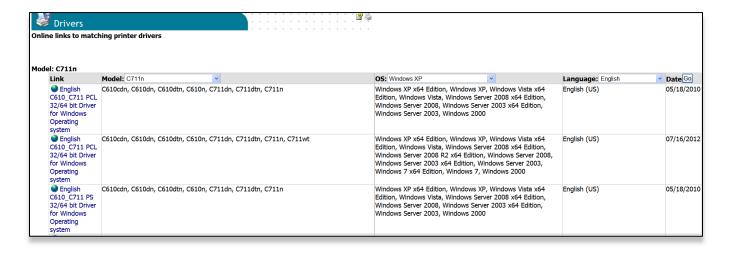
Downloading Oki Drivers

For convenience, PSV provides a built in search mechanism for Oki drivers and quick links to download a specific driver right from the PSV application. This feature saves time by eliminating the need to navigate, locate, and download drivers from www.okidata.com.

Note: The driver search and download feature is only available when United States/English is selected as the Locale during setup.

To search and download an Oki driver:

1. Select **Tools** from the main menu and **Drivers** from the drop down box.



- 2. Select the model, OS and Language of driver you are searching for
- 3. Click Go
- 4. Click the link to the desired driver in the left column and **Run** or **Save** the driver

Sending Files / Updating Firmware from PSV

PSV has a "Multi File Printing" tool for sending multiple print files to multiple print devices. The tool can also be used to update firmware on a fleet of printing devices deployed remotely.

There are options to make the update as safe as possible, to update multiple print devices in parallel, and to schedule the update after normal business hours.

Note: Caution is needed when performing firmware updates because in some cases an incomplete firmware transfer may render the print device unusable.

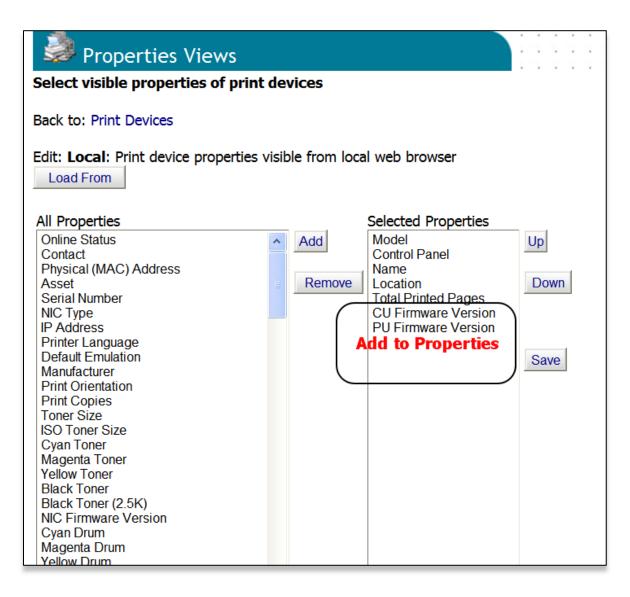
In addition, installing firmware revisions in a specific sequence is also important (you may have to update to an intermediate firmware version before you can update to the version you want installed on the device).

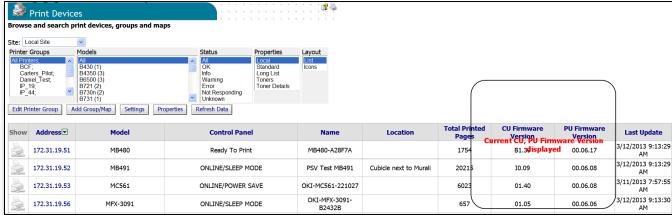
Before sending a firmware file to a print device, please make sure to get complete information from Oki Support. When used properly, the firmware updating feature in PSV can save significant time and effort.

Preparation

Print devices first need to be discovered or imported into the PSV database. To obtain the correct firmware version and instructions about the required upgrade order please contact Oki Support.

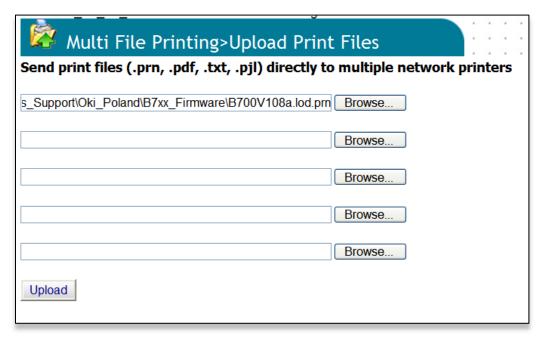
You will need the currently installed version of firmware in all print devices being upgraded. This is available in PSV, by adding "CU Firmware" in "Properties Views" Select "CU Firmware Version" from the list on the left, add "Add" button, and click "Save" button. Then, return to the "Printers" list and click the "Refresh Data" button.





Firmware Upload

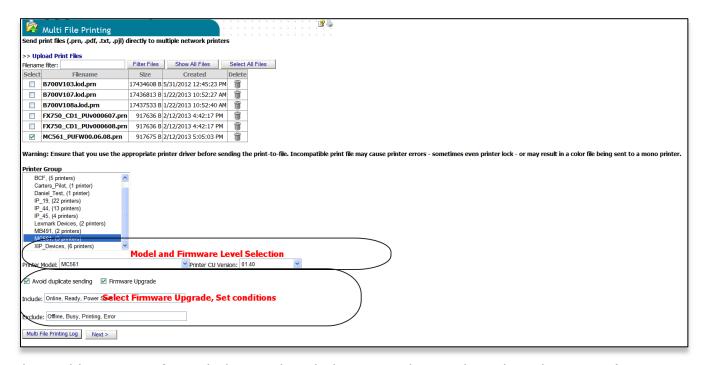
The first step is to "upload" the firmware file to the PSV web server. To do this, select **Multi File Printing** from the **Tools** menu. Then, click the **Upload Print Files** link on the Multi File Printing page. The file must have a .prn extension in order to be accepted by PSV server. Rename the file if necessary. It is recommended that only one file be uploaded at a time. Make sure to use a genuine firmware file received from Oki Support.



Microsoft's IIS may limit the size of a file being uploaded. An error message similar to "Maximum request length exceeded" may be an indication that a file exceeds this limit. If you encounter this problem, IIS can be configured to accept larger files, or the files can be copied manually to the PSV server machine. PSV stores uploaded files to the PSV installation location in a folder called "Upload". Program Files\PrintSuperVision\Upload.

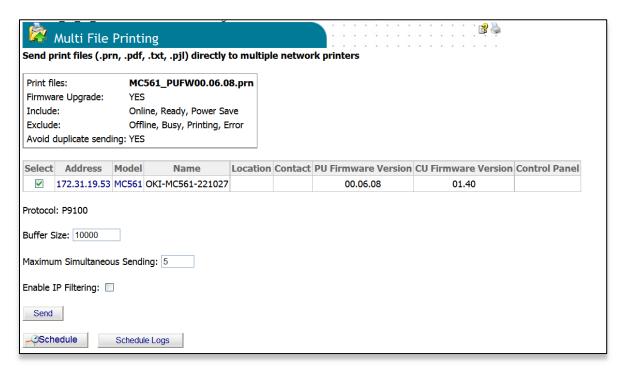
Configure Options

Next, select a firmware file to use for the upgrade. You can optionally specify a printer group, a printer model, and a firmware version to control the set of devices that receive the upgrade. Print devices in PSV can be arranged into "Print Groups" to help manage related devices. A print group can be used so that the firmware update is applied to all of the printers in the group. The "avoid duplicate sending" checkbox and "firmware upgrade" checkbox are available as additional options. The "firmware upgrade" option instructs PSV to wait for device to reboot, and check firmware version after sending file.



The tool has option for including and excluding print devices based on the printer's current status. **This is important** since sending a firmware update to a print device in an error state can cause problems!

The "Avoid Duplicate Sending" option is a convenient way to send the firmware only to devices that haven't received the update so far. The program keeps a log of previous device updates, and can avoid sending the same file again. That way, you can run the tool multiple times with same group of printers, until all of them are updated. Click the **Next** button to proceed to the final confirmation page, or to save the selected options for later "Scheduled" execution.



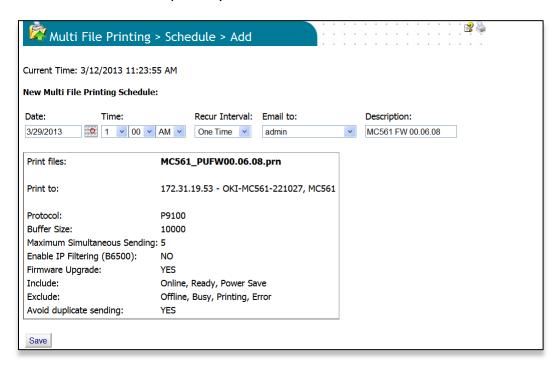
The tool provides selectable options for

- Buffer size: Default is 10,000 Bytes. This affects tracking progress. On local network it could be larger, on remote can be less, but less that 1000 would make it much slower.
- **Maximum Threads**: max number of print devices that will be updated at once. Use with caution. Start with small number (i.e. 3). You can increase up to 10 if you have a fast computer (i.e. quad-core). Parallel sending is quite robust, but the computer needs to be fast enough to be able to handle parallel connections
- Enable IP Filtering: Available only if "Firmware Upload" is first checked". This is
 an advanced feature to restrict print access to print devices before sending the file,
 and removing the restriction after the file has been sent. The restrictions are
 removed even if sending the file fails. This option is currently limited to B6500
 model only.

Clicking the **Send** button starts the upgrade.

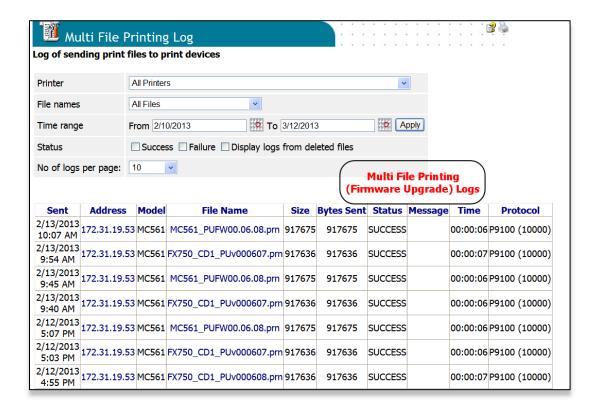
Firmware Upgrade

The tool provides a visual indication of progress while sending files to print devices. This includes the elapsed time and estimated remaining time. The same options are available when Multi File Printing is "**Scheduled**". Scheduled sending is done by PSV Engine service, and will not be interrupted by timeouts.



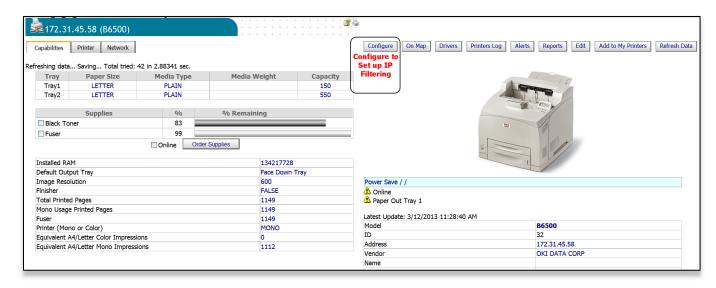
Multi File Printing Log

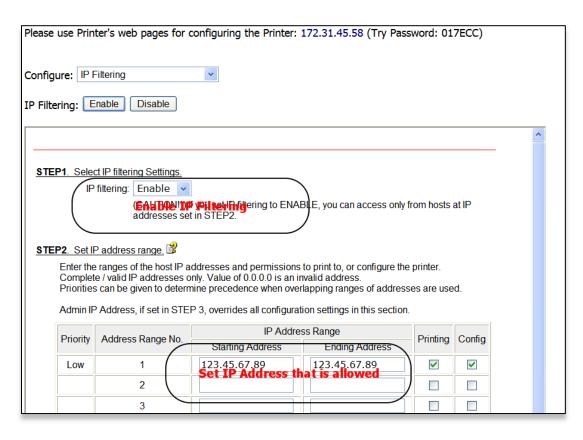
PSV maintains a "Multi File Printing Log" where it records the sending of files to print devices. The log includes details such as the size of print document, total number of bytes sent, and total time of sending. The report is accessed by clicking the "Multi File Printing Log" button on the "Multi File Printing" page.

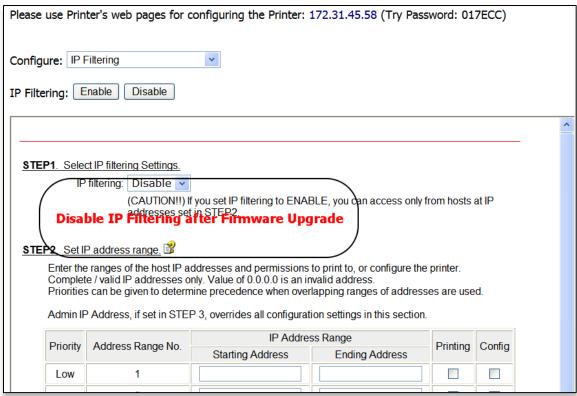


B6500 IP Filtering

IP filtering provides additional protection against any failure of the device when firmware is being updated. During that period, the device will accept data from only the IP address that is configured. It is recommended to use this option. For the OKI B6500, this feature is available from PSV.



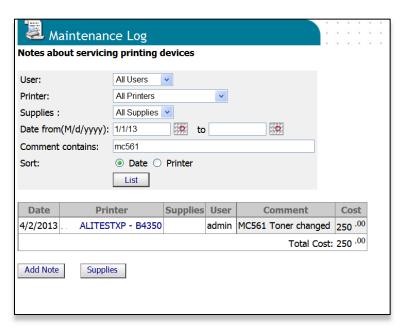




Creating a Maintenance Log / Managing Supplies Inventory

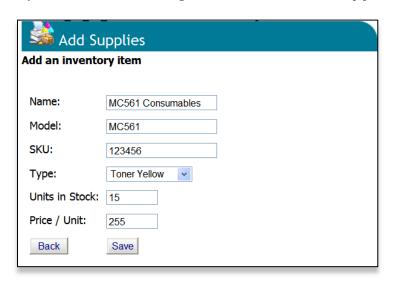
The maintenance Log feature allows you to keep track of services performed on individual devices and acts as tool to help keep track of supply items kept in your inventory including the price you paid for the item. All of the data in this area must be entered by the user.

1. Select **Tools** from the main menu and **Maintenance Log** from the drop down box.



The screen shown above is used for searching for specific supply items and service calls that have been previously entered. Add various supply items and service calls before attempting to generate a List.

2. To add supplies to your electronic storage cabinet, click the **Supplies** button.



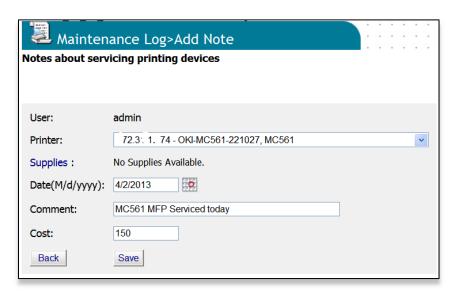
3. Enter the Brand of device, model name, SKU of the supply item and select the type of supply from the drop down menu. You can even enter the quantity that you are adding to inventory and price paid for the item.

4. Click Save

You may return to the electronic storage cabinet at any time to edit the items, reduce the amount of inventory or delete the supply item. Click the brown box icon in the edit column to edit supply items.

To record a service call:

- 1. Click the **Maintenance Log** button and you will return to the main Maintenance Log screen.
- 2. Click the Add Note Button



- 3. Select the appropriate device from the drop down list
- 4. Enter the date the service occurred, add optional comments
- 5. Enter the cost of the service
- 6. Click **Save** and a record of the service call is saved.

Public Web Services

PrintSupervision offers developers sample test applications and function calls to integrate PSV with other Enterprise applications.

1. Select **Services** from the main menu and **Public Web Services** from the drop down box.

Six samples test applications are provided and explained below:

- AboutVersion: Shows the PSV version number
- Address2 printers: Provides the details of a specific device
- GetProperties: Shows device properties
- Printers: Provides a list of the devices along with device details
- <u>Status Codes</u>: Provides a list of Alert Status Codes, their descriptions, and their severity level
- StatusSeverityNames: Shows available status name choices such as OK, Info, Warning, Error