



SAMSUNG

SyncThru™ Admin 6



| Admin Guide

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How to use this guide

The SyncThru™ 6 Admin Guide is intended to be used to install and setup SyncThru™ 6 on a network server and client systems. To assist you in acclimating to the SyncThru™ 6 environment, this guide provides instructional screen images, situational examples, easy-to-read tables of features, and step-by-step instructions. The chapters of this guide are arranged according to the page view, moving from left to right. Each tab's and sub-menu's functionality and screen layout is described in detail to ensure a complete understanding of the environment.

Intended audience

The expected user for this guide is a network administrator with an understanding of

- The network printing environment
- Network protocols – subnets, security features, addresses
- Windows operating systems on server and client computers
- SNMP and SNMPv3 monitoring
- LDAP

Terminology used in this guide

The following terms are used throughout this guide in examples, instructions, and descriptions:

Acronyms

The following acronyms are used throughout this guide in examples, instructions, and descriptions:

ACRONYMS	MEANING
DBMS	Database Management System
IP	Internet Protocol
JAC	Job Accounting
HTTP	Hypertext Transfer Protocol
HTTPS	Secure Hypertext Transfer Protocol
LDAP	Lightweight Directory Access Protocol
mDNS	Multicast Domain Name System
MFP	Multi-Functional Peripheral/Multi-Functional Printer
MSSQL	Microsoft SQL
NTLM	NT LAN Manager
OS	Operating System
RFC	Request for Comment
SLP	Service Location Protocol
S/N	Serial Number
SMTP	Simple Mail Transfer Protocol
SNMP	Simple Network Management Protocol
SSL	Secure Socket Layers
SWS	SyncThru Web Service
TCP	Transmission Control Protocol
UDP	User Datagram Protocol
WMI	Windows Management Instrumentation
XOA	eXtensible Open Architecture

Glossary

(See "Glossary" on page 101).

Reference material

SyncThru™ 6 software

<http://www.samsungprinter.com>

Updates and Plug-ins

<http://www.samsungprinter.com>

Help

Click the **Help** in site navigation bar at the top right corner of the SyncThru™ 6 page.

Product support information

Contact Samsung's printer service

<http://www.samsungprinter.com>

Getting started

This chapter gives you instructions for installing SyncThru™ 6.

Overview

SyncThru™ 6 is a web-based managing and monitoring application which helps you to discover, configure, manage, monitor and report on any type of SNMP-compliant printing and imaging devices without leaving your desk. There are nine main menus that will help you manage your devices: **Dashboard**, **Plug-in**, **Device**, **File**, **Accounting**, **User**, **Report**, **Rule**, and **Settings**. For easy management, you can add device status related items to the Dashboard and see them all on one page. The **Device** menu has sub-menus to support all the device-related operations, discovery, file storage management, access control management, and configuration. The **Plug-in** menu provides options to install, stop, start, and uninstall plug-ins that are installed on the server. The **File** menu supports all the file-related operations such as application installation file, driver installation file, and files to store on the server. The **Accounting** menu supports basic accounting functionality to track all jobs within your imaging and printing environments, and helps to save costs and reduce overuse. The **User** menu supports all the user-related operations such as user and user group management. The **Report** menu provides reporting capabilities for devices. The **Rule** menu allows the administrator to create rules and manage tasks according to the rule's conditions and actions. All of the menus and features in SyncThru™ 6 operate based on the settings set in the **Settings** menu. You can improve your organization's device management system with these menus and features.

Installation requirements

System requirements

ITEMS	SERVER SYSTEM REQUIREMENTS	CLIENT SYSTEM REQUIREMENTS
Hardware	<ul style="list-style-type: none">For less than 1000 devices:<ul style="list-style-type: none">Pentium 4 processor, 2GHz or faster2 GB RAM or more2 GB free disk space is recommended.For more than 1000 devices:<ul style="list-style-type: none">Dual core processor, 2GHz or faster2 GB RAM or moreA server with SQL server installed are highly recommended.50 GB free disk space is recommended for SQL Server. <p>SyncThru™ 6 can manage 5000 devices.</p>	Client computers do not require any software to be installed. To work with SyncThru™ 6, a web browser that SyncThru™ 6 supports must be installed on the client computers.
Operating system	<ul style="list-style-type: none">Windows XP Professional (32/64-bit)Windows 7 Professional (32/64-bit)Windows Server 2003 (32/64-bit)Windows Server 2008 (32/64-bit)	Any operating system with a supported browser installed.
Database	<ul style="list-style-type: none">PostgreSQL 8 included in application installationMS SQL Server 2005 WorkgroupMS SQL Server 2008 WorkgroupMS SQL Server 2005 EnterpriseMS SQL Server 2008 EnterpriseMS SQL Server 2005 StandardMS SQL Server 2008 Standard	N/A
Resolution	N/A	<ul style="list-style-type: none">1280 x 1024 or higher resolution is highly recommended.1400 x 900 or higher resolution (wide screen) is highly recommended.
Browsers	<ul style="list-style-type: none">Microsoft Internet Explorer 8.x or 9.xMozilla Firefox 3.6.8 or higherSafari 5.xChrome 15.xBrowser needs Adobe Flash Player 10.x or 11.x	

ITEMS	SERVER SYSTEM REQUIREMENTS	CLIENT SYSTEM REQUIREMENTS
Network	<ul style="list-style-type: none"> Network interface: <ul style="list-style-type: none"> Ethernet 10/100 Base-TX Network protocols: <ul style="list-style-type: none"> TCP/IP (compatible with IPv6) Device communication: SNMP, SNMPv3, HTTP, WMI SyncThru™ 6 server & client communication: HTTP, HTTPS 	

Ports

SyncThru™ 6 listens on several ports and opens some ports for specific features. The following table shows you the port information used by SyncThru™ 6:

PORT	TYPE	DESCRIPTION
162	UDP	Traps listening port
8080	TCP	HTTP default port
8081	TCP	HTTPS default port
427	UDP	SLP multicast discovery
5353	UDP	mDNS discovery
5432	TCP	PostgreSQL port

Installing SyncThru™ Server

Follow these steps to install SyncThru™ Server:

- Go to the local or network location where you downloaded the Samsung SyncThru™ 6 Setup file.



You can also download it at <http://www.samsungprinter.com>.

- Run the EXE file.
- Select the language you want to use.
- Read the setup guide and click **Next** to continue installation.
- Read the license information and click **I Agree** to continue installation.
- Choose the destination path for installation and click **Next**.

If the latest version of SyncThru™ 5 (version 5.5.2.3013) has already been installed, data can be migrated from SyncThru™ 5 to SyncThru™ 6.

- Select the **Import data from SyncThru 5.0** checkbox.

- Click **Next**.

- Select the Database server type you are using and click Next.



If you migrated data from SyncThru™ 5, the database server type can't be changed.



- If you select **Microsoft SQL Server**, you need to enter in the server information. Fill in the information and click **Next**.

- Server address** and **Port**. This is your SQL Server address and port number. Microsoft SQL Server uses port 1433 as a default.
- Database name**. This is your database name.
- User name** and **Password**. This is your account for the existing SQL Server. This account must have system administrative rights.
- Create database**. If you want to create a database, check this option. This is enabled once the connection has been successfully tested.
- Test Connection button**. You can check to see if the settings are correct by clicking this button.

- Type in the port number for the web server and, if necessary, check the options below then click **Next**.



- Windows Firewall** is a personal firewall, included in Microsoft Windows XP or higher OS versions. If your firewall is enabled, you need to add the ports SyncThru™ 6 uses to **Windows Firewall Exceptions**. Otherwise, you cannot use SyncThru™ 6 properly. Check **Add exception rule to the Windows firewall** option to add the ports SyncThru™ 6 uses to **Firewall Exceptions** automatically (see "Is Window XP Service Pack 2 supported by SyncThru™ 6?" on page 80).
- You need to configure a password for the **admin** account.

- Confirm the summary then click **Next**.

- Click **Install**.

- When the installation is finished, click **Close**.

If you selected to migrate data from SyncThru™ 5, the migration will begin now. The migration results will be displayed when it is finished.

Uninstalling SyncThru™

1. From the Windows **Start** menu, select **Control Panel > Add/Remove Programs**.
2. Select SyncThru 6.x.xxx and click **Remove**.
If you want to remove the SyncThru local database file including device information, select **Yes** for 'Do you want to delete database files from the local machine?' window.



Or, you can use SyncThru™ 6's included uninstaller.

From the Windows **Start** menu, click **Program > Samsung Network Printer Utilities > SyncThru™ Admin 6 > Uninstall**.

Starting SyncThru™ 6

SyncThru™ 6 starts automatically every time the computer you installed SyncThru™ 6 onto boots up. The application can also be started immediately after installation by selecting the "Run SyncThru" option. If you want to start SyncThru™ 6 manually, follow the steps below:

Starting the SyncThru™ 6 Server



- If the database is MSSQL, make sure the database server is started.
- If the database is PostgreSQL, then there will be one more service (SyncThru™ Database) that needs to be stopped/started.

1. From the Windows **Start** menu, click **Control Panel > Administrative Tools > Services**.
2. Select SyncThru™ Server application from the list
3. Click **Start**.

Opening the SyncThru™ 6 Browser

Enter one of the following addresses:

- **http://server_name.domain:port_number**
"server_name.domain" is the hostname of the SyncThru™ host machine
"port_number" is the web server port number that you entered during the installation
- **http://ip_address:port_number**
"ip_address" is the IP address of the machine where SyncThru™ is installed
"port_number" is the web server port number that you entered during the installation



There is another way to open SyncThru™. From the **Start** menu, select **Program > SyncThru > Website**.

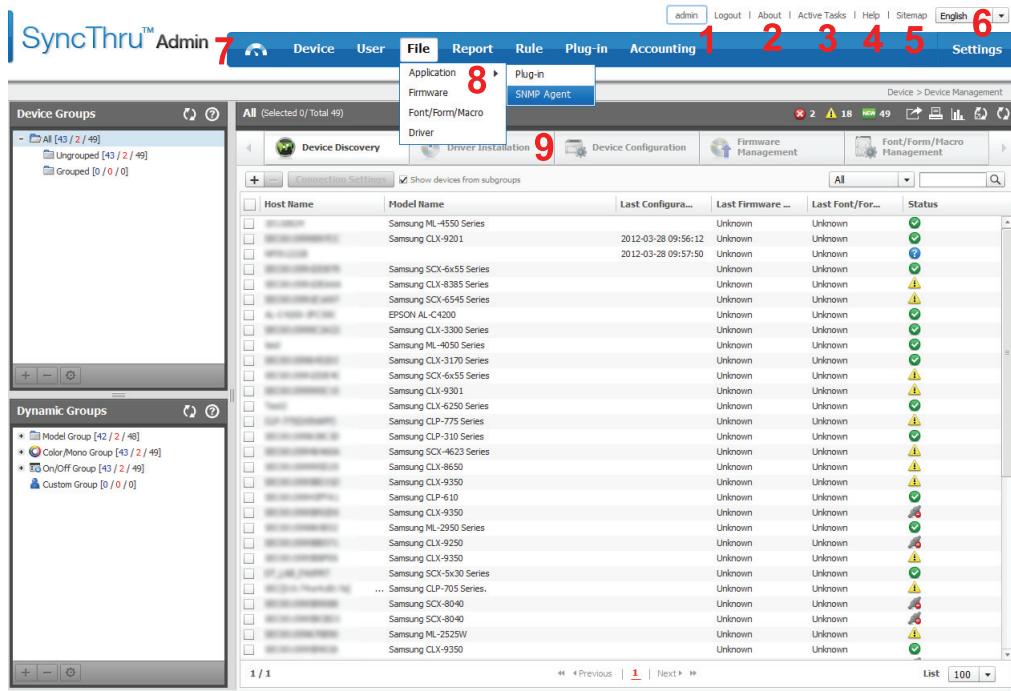
Stopping SyncThru™ 6

SyncThru™ 6 starts automatically every time the computer you installed SyncThru™ 6 onto boots up. If you want to stop SyncThru™ 6 manually, follow the steps below:

1. From the Windows **Start** menu, click **Control Panel > Administrative Tools > Services**.
2. Select the SyncThru™ Server application from the list
3. Click **Stop**.

Layout of SyncThru™ 6

Page Overview



NO.	ITEM	DESCRIPTION
1	ID/Logout	If a user is logged in, the user ID is displayed here along with Logout .
2	About	Information about this software.
3	Active Tasks	<p>You can see the details for all the active tasks in SyncThru™ 6.</p> <p>With the active task list, you can</p> <ul style="list-style-type: none"> view all the active tasks, including detailed information such as Type, Name, Schedule, Status, Start Time, and the requesting User, resume a specific task(s) by clicking the Resume button on the top left, pause a specific task(s) by clicking the Pause button on the top left, and stop a specific task(s) by clicking the Stop button on the top left.
4	Help	If you click this link, a help window pops up and you can find information by typing in the keyword.
5	Site Map	Shows the structure of menus in the SyncThru™ 6.
6	Language selection	Options for the application's display language.
7	Main menus	Includes nine main menus: Device , User , File , Report , Rule , Plug-in , Accounting , and Settings , plus the Dashboard link.
8	Sub-menus	Includes sub-menus of the menus. Sub-menus vary depending on the menu selected.

NO.	ITEM	DESCRIPTION
9	Toolbox	<p>The tool box under Device > Device Management, links to device management functions: Device Discovery, Driver Installation, Application Management, Device Configuration, and Firmware Management.</p> <p>The tool box under Accounting > Accounting Management, links to accounting and user permission functions: Accounting Settings, Apply User Permissions, Import Permissions, Apply Group Permissions, and Job Records.</p> <p>The tool box under User > User Management, links to user role assignment functions: Role Assignment.</p>



Layout style depends on the menu selected.

Icon overview


The following table shows icons used in SyncThru™ 6 and their meanings:

Common







ICON	NAME	DESCRIPTION
	Dashboard	Returns to the Dashboard .
	Refresh	Reloads the data in the information panel.
	Refresh Selected Item	Refreshes the information for only the selected items (up to 50) by retrieving information directly from the devices.
	Help	Opens a help message.
	Add	Adds a new item.
	Delete	Deletes the menus selected.
	Modify	Configures the item's options.
	Import	Imports a .csv file that includes the list data for the table.
	Export	Exports the selected item's information to a .csv file.
	Print	Opens a new browser window with the device or user information in a printer-friendly format.
	Email	Sends an email with the data to the given recipient.
	Statistics	Opens the statistical data in chart format.
	History Summary	Expands task information in the history pages.
	Sort Custom	Sort the list in ascending or descending order, or opens the window for selecting custom columns to display.
	Close	Closes the window or the widget on Dashboard .

Dashboard

ICON	NAME	DESCRIPTION
	Minimize/Maximize	Toggles between a full-screen widget and a minimized widget on Dashboard .

ICON	NAME	DESCRIPTION
	Edit	Opens the window to make changes to the widget's properties.

Device

ICON	NAME	DESCRIPTION
	Normal	Device is in a normal operational state.
	Unknown	The status of the device is unknown.
	Warning	Device is in a state where an error might occur in the future. For example, it might be in toner low status, which may lead to toner empty status.
	Error	Device has an error.
	Disconnected	Device is not connected to the network.
	New	Device is newly discovered.

Dashboard

This chapter explains what the Dashboard is and how to use it. You can monitor the devices with the SyncThru™ Dashboard.

Overview

The SyncThru™ **Dashboard** will help you manage your printing environment better than before.

Each widget gives you detailed information using an image, a column or pie graph, and/or a table. SyncThru™ provides various widget content for monitoring your printing environment. You can add the widgets with information that you need to check most frequently. Mousing over data in the widgets will open a bubble with more information.


Understanding Widgets

SyncThru™ 6 provides various **Dashboard** widgets for monitoring your printing environment. New widgets can be added with future versions of SyncThru™ 6.

These widgets can help you work more efficiently. For example, if you are a manager for Group A and you want to see consumables information for all of Group A's devices only, you can add a **Toner Status** widget for both criteria and check the information on the same page.

Additionally, each widget gives you detailed information using a link to the related report or device list. For example, you can add a **Device Status** widget to the **Dashboard** and see that 5 devices are in error status. You can check which device is in error status by clicking the **Dashboard** widget.



NAME	DESCRIPTION
Unresolved Errors	<p>Unresolved Error Devices widget shows how many errors are on devices by the selected time periods. This widget is useful for checking devices which have not been fixed for some time and assume that those devices have been out of order. Options for the time period(s) are All, Less than 1 week, 1 ~ 2 weeks, 2 weeks ~ 1 month, and More than 1 month. Selection of more than one time period is permitted.</p> <p>This widget includes only unresolved errors for the given time period. So if you click any part of this Unresolved Error Devices, the related analysis will be shown with the error information.</p>
Usage Status	<p>Usage Status widget shows the device usage by the selected parameters (See "Viewing the Report Categories" on page48).</p> <p>Options include the following:</p> <ul style="list-style-type: none">• Job Type: All, Print, Scan, Copy, Fax In, Fax Out, or Report.• Paper Type: All, A3, A4, or Other• Unit Type: Sheets or Impressions• Color Type: All, Color, or Mono• Type: All, Simplex, or Duplex• Chart Type: Column Chart or Pie Chart <p>You can set various combinations of these options for this widget.</p>
Usage Top / Low Devices	<p>Usage Top / Low Devices widget shows the most- and least-frequently used devices by the selected parameters (See "Viewing the Report Categories" on page48).</p> <p>Available options are the following:</p> <ul style="list-style-type: none">• Job Type: All, Print, Scan, Copy, Fax In, Fax Out, or Report.• Paper Type: All, A3, A4, or Other• Unit Type: Sheets or Impressions• Color Type: All, Color, or Mono• Type: All, Simplex, or Duplex

NAME	DESCRIPTION
Disconnected Device Status	Disconnected Device Status widget shows how many devices have the disconnected status in the selected domain and group. The information is grouped by time period. For example, if you click  and select “ more than 1 month ”. Options for the time period(s) are All , Less than 1 week , 1 ~ 2 weeks , 2 weeks ~ 1 month , and More than 1 month . Selection of more than one time period is permitted. SyncThru™ 6 lets you move to the devices list filtered with that period. This widget is useful for checking which devices have not been turned on and assume that those devices have not been in use or are out of order.
Device Status	The Device Status widget shows the current statuses in the selected domain and group. The widget is connected to the Device List by the selection of a device group and filtered for Device Status . For example, if you click the portion of error, SyncThru™ 6 lets you move to the devices list with error status. You can check details from the Device List .
Estimate Toner Empty	Estimate Toner Empty widget provides a forecast of how many devices will run out of their toner by the selected time period. Today , Week , Month , 3 months , 6 months , Year or a custom period can be provided.
Toner Status	Toner Status widget shows the devices toner levels by toner level. The status are the following: <ul style="list-style-type: none"> • Normal: enough toner. • Low: not enough toner left. • Empty: toner has reached its life span.
Current Error	Current Error widget shows errors that are currently active on devices in the selected domain and group. The severity level can be customized in the Settings > Device > Alert List page. Available options are Critical , Warning , and Information .




The widget order of the **Dashboard** may differ depending on which widget was added first.

Adding a Dashboard Widget

1. Run SyncThru™.
2. Click .
3. Click the add widget button ().
4. Select the type of widget.
5. Click **Next**.
6. Select a device group to manage and set the widget's options.
7. Click **Finish**.
8. Click **Close**.

Configuring Dashboard Widgets


Modifying a Dashboard Widget

Click the modify icon  on the header of the **Dashboard** widget.



Basically, each widget has an option for selecting groups so you can customize widgets with multiple groups. Additionally, some of the widgets have more options, such as **Periods** or **Type**, that can help you make more comprehensive widgets.


Maximizing/Minimizing a Dashboard Widget

Click the maximize icon  on the header of the **Dashboard** widget to fill the entire dashboard with more information about the widget's topic. To minimize the widget, click the icon again.

Refreshing a Dashboard Widget

Click the refresh icon  on the header of the **Dashboard** widget.

Deleting a Dashboard Widget

Click the delete icon  on the header of the **Dashboard** widget.

Devices

The **Device** menu supports all the device-related operations, discovery, map management, file storage management, access control management and configuration. This chapter gives you detailed information on the sub-menus under the **Device** menu that help you manage devices on the system.

Device Management

Viewing Device Information

The **Device Management** sub-menu provides a list to view the printers by group and to perform some basic updating functions for the printers. To view the **Device List**, follow these steps:

1. Select **Device > Device Management**.

The **Device Management** page opens.

The following table will describe the left panes.

COMPONENT	DESCRIPTION
Device Groups	The Device Groups section in the left pane displays the groups and sub-groups into which the printers have been divided.
Dynamic Groups	A Dynamic Group is a dynamically populated group that organizes devices based on specific properties. <ul style="list-style-type: none">• Model Group: shows each device model separately.• Color/Mono Group: shows each device's color type separately.• On/Off Group: shows devices in 3 status types: on, off, or unknown.• Customized Group: You can assign specific devices in a group. Duplicated device assignment is allowed.

The main pane displays the printers that are included in the group selected from the left side of the page. Device information and device maintenance options are also provided in this pane in the "toolbox."



To sort the information alphanumerically/reverse alphanumerically, click any column header to sort with that column's information.

The following table describes the "toolbox" functions available and the right pane:

COMPONENT	DESCRIPTION
Driver Installation	Click Driver Installation to install drivers for the selected device (see "Uploading a Driver File to the Server" on page46).
Device Configuration	Click Device Configuration to manage the selected device's settings (see "Device Configuration" on page20). This button is only active when a device is selected from the list.
Device Discovery	Click Device Discovery to manage device discovery settings (see "Device Discovery" on page29).
Application Management	Click the Application Management button to manage applications installed on a device (see "Device Applications" on page41). This button is only active when a device is selected from the list.
Firmware Management	Click Firmware Management to manage the selected device's firmware (see "Firmware Management" on page32).
Font/Form/Macro Management	Click Font/Form/Macro Management to manage files stored on the device's storage unit (see "Font/Form/Macro Management" on page32). This button is only active when a printer has been selected from the device list.
Connection Settings	Click this button to edit a device's connection settings (see "Connection" on page67).
Show devices from subgroups	Select this option to display all printers under the parent group and subgroups. If this is not selected, only printers in the selected group will be displayed.
All	Use the pull-down filter to limit which printers are displayed by status.

Showing or hiding columns

Click the gray triangle icon in the table header to sort the list or customize the columns.

Select **Custom** to open a window with options for viewable columns. Click the arrows in the middle to add or remove selected items from viewing.

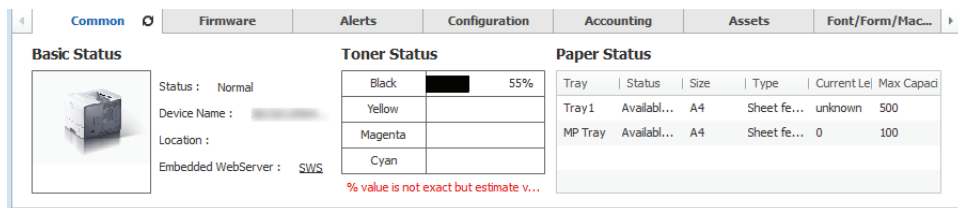
The following are the items available for viewing in the **Device Management** screen:

COMPONENT	DESCRIPTION
Channel Protocols	Displays the list of channel protocols representing the set of input data sources which can provide print data to one or more of the interpreters available on a printer
Device	<p>Displays the device's information.</p> <ul style="list-style-type: none">• Color: Color or monochrome information• Contact Person: Contact information• HDD Size• Host Name: The host name of the device.• IP Address• Local:• Location: The physical location of the device.• MAC Address• Manufacturer• Model Name• Network Name• New:• Page Count: Total printed page count for the device.• Page Count since Power on: The number of pages printed since the last power cycle.• Serial Number• Status: The device's current operational status: Normal, Unknown, Error, Warning, or Disconnected.• Toner: The device's toner type and their percentages remaining.
Firmware Versions	<p>Displays the device's firmware information.</p> <ul style="list-style-type: none">• Hardware Version: The version of the device's engine firmware.• Main Firmware Version: The version of the device's firmware• Network Firmware Version: The version of the device's network card firmware.
Service	Displays the various services that are enabled or disabled.
System	<p>Displays the system information.</p> <ul style="list-style-type: none">• Altitude Adjustment: Displays the assigned altitude adjustment level to use for adjusting print quality• Asset Number: Assigned asset number.• Black Color Density• Clock Mode: The clock display mode of the device's LCD.• Color Enable Custom:• Cyan Color Density• Distributor:• Enable Alarm Sound• Enable Auto Continue• Enable Key Sound• Firmware Update Enable: Displays that the selected device can be updated with the Firmware Management tool.• Magenta Color Density• Model Version• Print Job Timeout: The time assigned for the print job timeout.• System Module Version:• Yellow Color Density

COMPONENT	DESCRIPTION
Tasks	<p>Displays the task setting information.</p> <ul style="list-style-type: none"> • Last Configuration: Displays the last time the device was configured through SyncThru. • Last Xoa App Operation: Displays the date and time of the latest successful operation performed by Application Management upon the given device. • Application Management: Displays whether or not the given device supports remote application management. • Last Firmware Operation: Displays the last time firmware was updated on the device. • Last Font/Form/Macro Operation: Displays the last time the device had a font/form/macro task performed.

Viewing Device Information


Double-clicking on any item in a device's information will drop down more information about the device as well as more configuration options. Double-clicking again will close the information.



COMPONENT	DESCRIPTION
Common	This tab displays physical information about the device, such as image, toner status, and paper tray information.
Firmware	This tab displays information about the device's firmware and upgrade history. It shows the firmware that supports this device.
Alerts	This tab displays the device's alert history.
Configuration	This tab displays the device's current configuration and the configuration history. Click Configuration to make changes to the device's settings (see "Device Configuration" on page20).
Accounting	This tab displays the accounting information for the device.
Assets	Displays information related to the assigned assets of the device. "Assets" are components of the device.
Font/Form/Macro	This tab displays the device's file storage management history and the files currently on the device's storage unit (see "Firmware Management" on page32). Click Management to open a window where files can be viewed or removed. The user interface may have different information, but the process is the same.
Application	This tab displays the device's current applications (see "Device Applications" on page41).


Adding a Device Group

Printers can be divided into groups for easier management. Groups can only be added under the **All > Grouped** folder. There is no limit to the number of group levels that can be added and the steps for adding any group level will be the same. To add a group, follow these steps:

1. Select the group under which the new group is to be created.
2. Click the  button.
The **Add Group** window opens.
3. Enter the **Group Name** and **Description**.
4. Click **Add**.

Deleting a Device Group

If a group is no longer needed, it can be deleted. The groups **All**, **Ungrouped**, and **Grouped** cannot be deleted. To delete a group, follow these steps:

1. Select the group to be deleted.
2. Click the  button.

A confirmation window opens.

3. Click **OK**.

Editing a Device Group

If a group's functionality or name needs to be changed, this can be done by clicking on the edit button. The groups **All**, **Ungrouped**, and **Grouped** cannot be edited. To edit a group's information, follow these steps:

1. Select the group to be edited.

2. Click the  button.

The **Edit Group** window opens.

3. Enter the new **Group Name** and **Description**.
4. Click **Save**.


Adding a Dynamic Group

Printers can be divided into groups for easier management. Groups can only be added under the **Custom Group** folder. Only one level of groups can be added under dynamic groups. To add a group, follow these steps:

1. Select the group that the new group is to be created under.

2. Click the  button.

The **Add Group** window opens.

3. Enter the **Group Name** and **Description**.
4. Select a **Filter Match**.
5. Click the  button to add a filter to the dynamic group.

Repeat this step for as many condition as necessary.

6. Click **Save** to save the group and conditions.
Devices meeting the conditions will be added to the group automatically.

Deleting a Dynamic Group

If a group is no longer needed, it can be deleted. The groups **Model Group**, **Color/Mono Group**, and **On/Off group** cannot be deleted. To delete a user-created **Custom Group**, follow these steps:

1. Select the group to be deleted.

2. Click the  button.

A confirmation window opens.

3. Click **OK**.

Editing a Dynamic Group

If a group's functionality or name needs to be changed, this can be done by clicking on the edit button. The groups **All**, **Ungrouped**, and **Grouped** cannot be edited. To edit a group's information, follow these steps:

1. Select the group to be edited.

2. Click the  button.

The **Edit Group** window opens.

3. Enter the new **Group Name** and **Description**.
4. Make changes to conditions or Click **Remove Condition** to remove a conditions.
5. Click **Save**.

If devices in a group no longer meet the conditions, they will be removed from the **Dynamic Group**.

Exporting a Group List

To export a device list to Excel, follow these steps:

1. Select **Device > Device Management**.

2. Select the group to export.

3. Click the  button then **CSV**.

A window to open or save the Excel file opens.

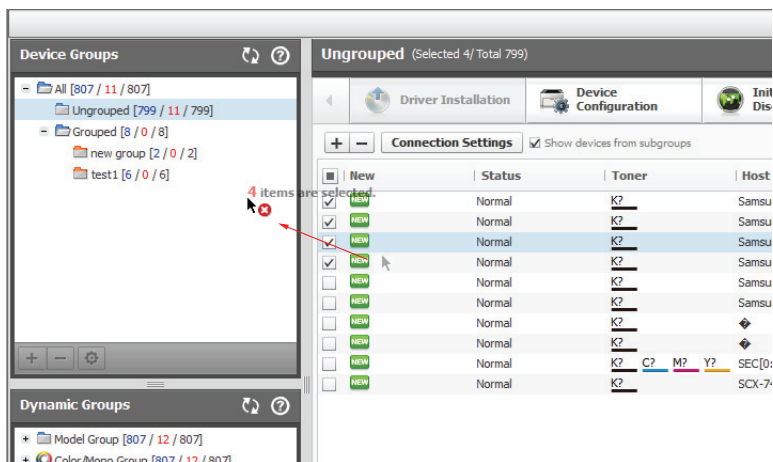
4. Select to open or save the file.

Adding a Device to a Group

Devices are added to groups via drag and drop.

1. Select **Device > Device Management**.
2. Select the group containing the devices that need to be moved to another group.
3. Select the check boxes of the devices to be moved.

- Click on one of the selected devices and drag it to the group folder to which it is to be added.



Connection Settings

See "Connection" on page67 for information on the settings that can be configured by clicking the **Connection Settings** button. Selecting the **Use default** checkbox will change use the default connection settings for the selected devices, and selecting the checkbox next to the connection type will allow changes to be made manually.

In the **Device > Device Management** menu, the **Firmware Management** tool box is used to configure the settings for mass firmware management of the specified devices. To upgrade device firmware, SyncThru™ Admin 6 uses the HTTP protocol for upgrading the firmware of Samsung devices. If credentials are enabled on the device, upgrading firmware results in failure. You can see the results in **Firmware Management History**. Here you need to configure the credentials with the **Connection Settings** button.

- Select the device for which to set credentials.
- Click **Connection Settings**.
- Check **Embedded Web Server Settings**.
- Set the SWS login, password, and port (the port number is usually 80).

Device Toolbox Functions


The "toolbox" is the list of links located above the device list.

The following are the functions provided in the toolbox:

- **Device Configuration**
- **Device Discovery**
- **Driver Installation**
- **Application Management**
- **Firmware Management**
- **Font/Form/Macro Management**

Device Configuration

SyncThru™ 6 also provides a powerful device configuration tool. The **Configuration** window provides options for all of the devices functions and settings. Some features listed in the following sections may not apply to all devices. Multiple devices can be selected for configuration, but if the devices have different features available, some settings may fail to be saved.

- To see the **Configuration** window, select **Device > Device Management > Select the devices for which to change settings > Device Configuration** tab.
- Select **Device > Device Management > Select the devices for which to change settings > Configuration** tab.
 - Click **Device Configuration**.
The **Device Configuration** window opens.
 - Make changes to the settings (described in the following sections) or use previously saved settings.
To add features to the settings, click the **Add** button for each one. The feature will be moved to the table. To remove a feature, select the feature in the table and click the  button in the top-left corner of the **Action List**.
 - Click **Next**.
 - Adjust the scheduling for when the changes are to start.

COMPONENT	DESCRIPTION
Start Now	Select this option to make the changes immediately.

COMPONENT	DESCRIPTION
Scheduling	Select this option to set a later date on which the changes are to be made.
Start Date/Time	Select a date and time for the changes to be made.
Time Interval	Select how often the changes are to update. Options for this are Once , Daily , Weekly , or Monthly . The changes will be updated on the same day/date and at the same time as the date/time selected for Start Date/Time .

6. Click **Next**.



The changes will be made to the device and/or saved for future changes. Results can be checked under **Device > Management History > Device Configuration History** (see "Device Configuration History" on page 34).



Configuration Settings

This section will give details on the settings available from the **Configuration Settings**.

System



The following are the system settings available for changing:

COMPONENT	DESCRIPTION
Action	<p>To add any of the Action settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none"> • System Restart: Selecting this option will set the System Restart command. This is used to check the device by restarting the system when an error is received. • Manual image overwrite: Selecting this option will erase the hard disk drive. • Document box clear: Selecting this option will empty the document box on the device.
General	<p>To add any of the General settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the bottom table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none"> • Host Name: The host name of the device. • Location: The physical location of the device. • Contact: The contact person for the device. Any information for contact purposes is usable. • Asset Number: An asset number. The Asset Number is used to manage devices as assets. Any number can be assigned to this value. • Distributor Name: A distributor name. The Distributor Name is used to make managing devices easier. This value can be the manufacturer or a contact person. • Clock Mode: Set the mode of the device's on-screen clock. Options for this are 12 Hours or 24 Hours. • Power Save Timeout: UA value (in seconds) for how long the device must be idle before it will enter power save mode. • Job Timeout: A value (in seconds) for how long the system will hold a print job before aborting the job. A value of 15 or more is recommended for busy networks. • Altitude Adjust: Select a value for the device's altitude. Altitude affects print quality and toner usage. Options for this and their altitude assignments are the following: <ul style="list-style-type: none"> - Normal: 0 - 1,000 m above sea level or 0 - 3,200 ft. - High 1: 1,000 - 2,000 m above sea level or 3,200 - 6,500 ft. - High 2: 2,000 - 3,000 m above sea level or 6,500 - 9,800 ft. - High 3: 3,000 - 4,000 m above sea level or 9,800 - 13,000 ft. • Auto Continue Enabled: Select this check box to continue a job automatically even if there is a paper mismatch error. Do not select this check box if you do not want a job to continue if the paper does not match.

COMPONENT	DESCRIPTION
Consumables	<p>To add any of the Consumables settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none"> • Toner Save Enabled: Select this option to set the toner saving policy. The life of the toner cartridge(s) will be extended without significant lessening of print quality.
Sound/Volume	<p>To add any of the Sound/Volume settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none"> • Key Sound Enabled: Select this option to turn on audible sound when a key on the device is pressed. De-select this option to turn off key sounds. • Alarm Sound Enabled: Select this option to turn on an audible sound for the system alarm. De-select this option to turn off key sounds. • Speaker (Fax Sending): Use the pull-down menu to set the speaker setting for outgoing faxes. Options for this are the following: <ul style="list-style-type: none"> - Off: The speaker is turned off. - On: The speaker is turned on throughout the entire fax transmission process. - Comm.: The speaker is turned on during dialing and connection negotiation but turned off during data transfer. This is the typical modem setting. • Ringer (Fax Receiving): Use the pull-down menu to set the speaker setting for incoming faxes.


Print

The following are the print settings available for changing:

COMPONENT	DESCRIPTION
General	<p>To add any of the General settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none">• Color Printing Enabled: Use this pull-down menu to select the default color mode. Options for this setting are Color, Mono, and Gray.• USB Direct Printing Enabled: Select this option to enable direct printing from a USB device on the printer.• Print Default Duplex: Use this pull-down menu to select the default duplex print mode. Options for this setting are the following:<ul style="list-style-type: none">- Off: The device will print on one side of the paper.- Long Edge: The device will print on both sides of the paper with the paper oriented for long edge binding.- Short Edge: The device will print on both sides of the paper with the paper oriented for short edge binding.• Print Default Orientation: Use this pull-down menu to select the default page orientation. Options for this setting are the following:<ul style="list-style-type: none">- Portrait: The orientation will be portrait (short edge as the page top).- Landscape: The orientation will be landscape (long edge as the page top).- Short Edge: The device will print on both sides of the paper with the paper oriented for short edge binding.• Print Darkness: Use this pull-down menu to select the default toner darkness of prints. Options for this setting are Light, Normal, Dark, Lightest, and Darkest.
Color	<p>To add any of the Color settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none">• Auto Color Registration: Select this option to set the auto color registration process. Default color registration values will be used unless custom values are selected.• Black: Use the pull-down menu to set the relative level of black toner for color registration.• Cyan: Use the pull-down menu to set the relative level of cyan toner for color registration.• Magenta: Use the pull-down menu to set the relative level of magenta toner for color registration.• Yellow: Use the pull-down menu to set the relative level of yellow toner for color registration.



Copy


The following are the copy settings available for changing:

COMPONENT	DESCRIPTION
General	<p>To add any of the General settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none"> • Copier Enabled: Select this option to allow users to use the copy function of the device. If this is not selected, users cannot use any copy functions. • Copier Darkness: Select the default darkness of copies. • Copier Original Type: Set the default type for copies made on the device. Select this option to enable direct printing from a USB device on the printer. <ul style="list-style-type: none"> - Text: The default copied original will be a text only document. - Text and Photo: The default copied original will include text and images. - Photo: The default copied original will include images - LineArt: The default copied original will be line art. - Color: The default copied original will be a color document. - Gray: The default copied original will be a grayscale document.

Fax



The following are the fax settings available for changing:



COMPONENT	DESCRIPTION
General	<p>To add any of the General settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none"> • Fax Enabled: Allow users to use the fax function of the device. If this is not selected, users cannot use any fax functions. • Fax Machine ID: Enter the machine's ID that will appear in the "from" field of the Transmitting Terminal Identification (TTI). • Fax Number: Enter the machine's fax number that will appear in the "from" field of the Receiving Terminal identification (RTI). • Fax Default Darkness: Select the default darkness of fax images. • Fax Default Resolution: Set the default resolution for fax images. Options for this setting are the following: <ul style="list-style-type: none"> - Standard: - Fine: - Super Fine: - Photo: - Color:
Sending	<p>To add any of the Sending settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none"> • Fax Sending Redial Times: Enter the maximum number of redial attempts when sending a fax. • Fax Sending Redial Interval: Enter the time (in seconds) that the system will wait between redial attempts. • Fax Sending Prefix Dial: Enter a dialing prefix for outgoing fax calls. • Fax Sending Error Correction Mode Enabled: Select this option to enable Error Correction Mode (ECM) for fax transmissions. • Fax Sending Report: Set fax report printing mode for sent faxes. Options for this setting are the following: <ul style="list-style-type: none"> - Off: A fax report will never print. - On: A fax report will always print after a fax job. - On Error: A fax report will only print when an error occurs during transmission.

COMPONENT	DESCRIPTION
Receiving	<p>To add any of the Receiving settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none"> • Fax Receiving Mode: Select the default fax receiving mode. Options for this setting are the following: <ul style="list-style-type: none"> - Tel: Faxes will not be received and the fax machine will ring until a user answers the call with an external phone. - Fax: Faxes will be received automatically after the number of rings set in Fax Receiving Ring to Answer. - Ans/Fax: Faxes will be received automatically after the CNG tone and Remote Code or after the number of rings set in Fax Receiving Ring to Answer. • Fax Receiving Ring to Answer: Enter the number times the machine will ring before the system answers. • Fax Receiving Start Code Enabled: Enable the usage of a Remote Code to start receiving a fax automatically. • Fax Receiving Start Code: Enter a Remote Code used to start receiving a fax automatically. • Fax Receiving Auto Reduction Enabled: Select this option to automatically reduce an incoming fax to fit on the size of paper available in the fax machine. • Fax Receiving Discard Size (mm): Enter (in millimeters) the amount of image to delete. • Fax Receiving Default Duplex: Set the default duplex option for incoming faxes. Options for this setting are the following: <ul style="list-style-type: none"> - Off: Faxes will print on one side of the paper. - Long Edge: Faxes will print on both sides of the paper with the paper oriented for long edge binding. - Short Edge: Faxes will print on both sides of the paper with the paper oriented for short edge binding.

Scan




The following are the scan settings available for changing:

COMPONENT	DESCRIPTION
General	<p>To add any of the General settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none"> • Scanner Enabled: Select this option to allow users to use the scan function of the device. If this is not selected, users cannot use any scan functions. • Scan Default Original Type: Set the default type for scans made on the device. Options for this setting are Text, Text/Photo, and Photo. • Scan Default Resolution: Set the default resolution for scanned images. • Scan Default Color Mode: Select the default color mode of scanned images from among Color, Mono, and Gray. • Scan Default File Format: Set the default file format into which images will be scanned. Options for this setting are PDF, Single-Page TIFF, Multi-Page TIFF, and JPEG.
Scan to Email	<p>To add any of the Scan to Email settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none"> • Scan to Email Enabled: Select this option to enable users to use the scan to email function.

COMPONENT	DESCRIPTION
Scan to FTP	<p>To add any of the Scan to FTP settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none"> • Scan to FTP Enabled: Select this option to enable users to use the scan to FTP function. • Scan to FTP Server Connection Timeout (seconds): Enter (in seconds) how long the system needs to be idle before the connection is automatically closed. • Scan to FTP Servers: Enter a new FTP server's information by clicking on the plus button.
Scan to SMB	<p>To add any of the Scan to SMB settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none"> • Scan to SMB Enabled: Select this option to enable users to use the scan to SMB function. • Scan to SMB Server Connection Timeout (seconds): Enter (in seconds) how long the system needs to be idle before the connection is automatically closed. • Scan to SMB Servers: Enter a new SMB server's information by clicking on the plus button.






Email




The following are the email settings available for changing:

COMPONENT	DESCRIPTION
SMTP Client	<p>To add any of the SMTP Client settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none"> • Scan to Email Default [From:] Address: Set when the speed of the ethernet interface. To set the speed by the system, select Automatic. Another options for this setting are 10 Mbps (Half Duplex), 10 Mbps (Full Duplex), 100 Mbps (Half Duplex), 100 Mbps (Full Duplex), 1 Gbps (Half Duplex), and 1 Gbps (Full Duplex). • Scan to Email Auto Send to Self: Select this option to automatically send the scanned image to the sender along with the recipients. • Scan to Email Default Subject: Enter a default subject line for images sent using the scan to email function. • Scan to Email Default Body Text: Enter a default message for images sent using the scan to email function. • Scan to Email Print Confirmation Sheet: Set when a scan to email confirmation sheet will be printed: <ul style="list-style-type: none"> - On Errors Only: A report will be printed only if an error occurs during transmission. - Never: A report will never be printed. - Always: A report will always be printed when a fax is forwarded.
Address Book	<p>The Address Book setting is used to distribute a list of email addresses to multiple devices at once. To add users to the list, click the  button and enter the user's information. To remove a user from the list, click the  button. The data can also be exported as a .csv file, or pre-existing data can be imported as a .csv file.</p> <ul style="list-style-type: none"> • Address Book 1.0: Version 1.0 of the address book. This version is not supported by all devices. • Address Book 1.1: Version 1.1 of the address book. This version is not supported by all devices. • Address Book 2.0: Version 2.0 of the address book. This version is not supported by all devices.

Network



The following are the network settings available for changing:

COMPONENT	DESCRIPTION
Ethernet	<p>To add any of the Ethernet settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none"> • Ethernet Speed Rate: Enter the default sending email address for images scanned using the scan to email function.
IP Filtering	<p>To add any of the IP Filtering settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none"> • IP Filtering Enabled: Select this option to filter which IPs will have access to the network.
IPP	<p>To add any of the IPP settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none"> • IPP Enabled: Select this option to enable Internet Printing Protocol (IPP) for remote printing. • IPP Printer Name: Enter a user-friendly name for the IPP printer. • IPP Printer URI: Enter the URI of the IPP printer. • IPP Printer Information: Enter a description for the printer. • IPP More Printer Information: Enter more information for the printer. • IPP Printer Location: Enter the physical location of the printer. • IPP Multiple Operation Timeout: Enter (in seconds) how long the printer will wait for additional send-document or send-URI commands while a multi-document job is still open before taking any recovery actions. This should be at least 30 seconds for busy networks. • IPP Time to Keep Jobs in History: Enter (in seconds) how long the printer will keep completed IPP jobs in the job history. This should be at least 30 seconds for reliable job accounting and job completion notifications on busy networks. • IPP Operator Message: The message delivered to the user with device status information.
LPD	<p>To add any of the LPD settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none"> • LPR/LPD Protocol Enabled: Select this option to enable Line Printer Remote/Line Printer Daemon (LPR/LPD) for platform-independent printing. • LPR/LPD Protocol Port: Enter the port to use for LPR/LPD printing. 515 is set as default.
SLP	<p>To add any of the SLP settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none"> • SLP Enabled: Select this option to enable Service Location Protocol (SLP). • SLP Message Type: Set the User Datagram Protocol (UDP) message type for SLP discovery requests. Options for this setting are: <ul style="list-style-type: none"> - Multicast: Sends the message to a specific set of multiple destinations simultaneously. - Broadcast: Sends the message to all devices in the given range. • SLP Multicast Radius: Enter the UDP multicast radius (TTL or hop count) for SLP discovery requests. 255 is set as default. • SLP Registration Lifetime: Set the lifetime (in seconds) of SLP registration (how long the registration will be active).

COMPONENT	DESCRIPTION
SNMP Traps	<p>To add any of the SNMP Traps settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none"> • SNMP Authentication Traps Enabled: Select this option to enable the system to support generation of SNMP authentication failure traps.
TCP/IP	<p>To add any of the TCP/IP settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none"> • Dynamic DNS Registration: Select this option to enable dynamic DNS registration. • Domain Name: Enter the domain name of the DNS server. • Primary DNS Server: Enter the IP address of the primary DNS server. • Secondary DNS Server: Enter the IP address of the secondary DNS server. • Primary WINS Server: Enter the IP address of the primary WINS server. • Secondary WINS Server: Enter the IP address of the secondary WINS server.
UPnP	<p>To add any of the UPnP settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none"> • Auto IP: Enable Auto IP usage for link-local auto-configuration. • Multicast DNS: Enable DNS usage for printer advertisement. • SSDP: Enable Simple Service Discovery Protocol (SSDP) usage for printer advertisement via multicast address 239.255.255.250. • SSDP TTL: Enter the UPD multicast radius (TTL or hop count) for SSDP advertising.

Security

The following are the security settings available for changing:


COMPONENT	DESCRIPTION
Security	<p>To add any of the Security settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none"> • Printer Firmware Update Enabled: Enable software/firmware update operations.
SWS	<p>To add any of the SWS settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none"> • SWS Password Enabled: Enable the login ID/password requirement for accessing SyncThru. • SWS Login ID: Enter the administrative login ID for SyncThru. • SWS Login Password: Enter the administrative password for SyncThru. Select the Show Password option to display the actual password instead of *s.


Job Accounting



Only appears if the Job Accounting plug-in is installed.

The following are the job accounting settings available for changing:

COMPONENT	DESCRIPTION
Error Report	<p>To add any of the Error Reporting settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none"> • Error Reporting Enabled: Enable error reporting for the device.

COMPONENT	DESCRIPTION
Job Types	<p>To add any of the Job Types settings to the device, click Add in the pop-up window. To remove a setting that has been added, select the setting in the table and click the  button in the top-left corner of the table.</p> <ul style="list-style-type: none"> • Enable Copy Job: Enable copy jobs for users on this device. • Enable Fax Job: Enable fax jobs for users on this device. • Enable Print Job: Enable print jobs for users on this device. • Enable Scan Job: Enable scan jobs for users on this device.

Device Discovery


SyncThru™ 6 allows you to search your network for devices. You can schedule and configure discoveries to suit your needs. Once devices are discovered, their information is stored on the server. To discover devices, you have to choose a discovery method.


Initializing New Discovery Settings

To set up new discovery settings, follow these steps:


1. Select **Device > Device Management**, then click on **Device Discovery** in the toolbox.
2. Select which search procedure(s) to use (multiple selections are allowed): **Broadcast**, **IP range**, **SLP multicast**, **LDAP**, and/or **Enable local devices discovery (WMI)**. You can also use a CSV file with device information to import a list of specific devices.



If you already have a discovery options template, load it by clicking the **Load Template** () button.

COMPONENT	DESCRIPTION
Broadcast	<p>This sends a general SNMP request to all of the active devices on the local subnet and listens for responses from supported devices.</p> <p>Broadcast method is suitable for the following:</p> <ul style="list-style-type: none"> • searching a small network with few devices. • searching devices quickly. • searching a single subnet.
IP range	<p>This method searches for the devices within a range of IP addresses. SyncThru™ 6 can find devices on local or remote subnets. It can be slow on large networks because the system checks each IP address, including unused ones, to see if there is a device.</p> <p>IP Range method is suitable for the following:</p> <ul style="list-style-type: none"> • searching devices on local and remote subnets. • running a discovery for specific IP Ranges with different schedules. • limiting the scope of discovery on the network. • searching multiple IP ranges.
SLP multicast	<p>This method sends a single SLP request over the specific multicast address, 239.255.255.253, defined by RFC 2608. Only the devices which support the multicast IP address can respond to this request. SLP is similar to the Broadcast discovery except that it only looks for a specific device, which means that it does not generate as much network traffic and is less likely to lose device responses.</p> <p> The values of the Multicast address and Scope for Samsung devices are embedded in SyncThru™ 6. Port number 427 is always used for SLP discovery. Please make sure that SLP protocol is enabled on the devices. Otherwise, you need to contact your network administrator.</p> <p>SLP multicast method is suitable for the following:</p> <ul style="list-style-type: none"> • searching devices that support multicast broadcasts. • searching devices on a relatively small network.
LDAP	<p>This method requires your knowledge of LDAP and Active Directory domain. If you use LDAP discovery method, SyncThru™ 6 scans the Active Directory or LDAP server for the printers using LDAP protocol. First, you have to configure LDAP server information in Settings menu > Network Settings > LDAP Server.</p> <p>LDAP method is suitable for the following:</p> <ul style="list-style-type: none"> • searching devices on LDAP servers including Active Directory.

COMPONENT	DESCRIPTION
CSV Import	This method searches the devices with the specified IP addresses. If you have a IP address list of your devices, you can upload CSV file for easy and efficient discovery. There is no unnecessary packet during discovery because SyncThru™ 6 queries only to the specified IP addresses. CSV Import method is suitable for the following: <ul style="list-style-type: none"> • searching devices with a specific IP addresses list. • running a discovery for specific IP Ranges with different schedules. • limiting the scope of discovery on the network.
Discovery Options	Provides options for connection types to be searched. Click on Connection Settings to make changes to SNMP or WMI settings (see "Connection Settings" on page20).

3. Click the **Save Template** () button if you want to save the settings for future discoveries.
4. Click **Next**.
5. Adjust the scheduling for when device discovery is to take place.

COMPONENT	DESCRIPTION
Start Now	Select this option to make the changes immediately.
Scheduling	Set a later date on which the changes are to be made. <ul style="list-style-type: none"> • Date & Time: Select a date and time for the changes to be made. • Interval: Select how often the changes are to update. The changes will be updated on the same day/date and at the same time as the date/time selected for Date & Time.




Results of discovered devices can be found on **Device > Management History > Device Discovery History** and discovered devices will be in the **Ungrouped** group found at **Device > Device Management**.

Viewing Discovery Results

This section will explain the discovery results screen found at **Device > Management History > Device Discovery History**.

COMPONENT	DESCRIPTION
Tasks	This list shows discoveries that have been performed based on the filtering criteria. Clicking on an item in the list will display in the main pane the devices found by using the discovery's settings.

The calendar is a quick way to tell which dates have had a discovery performed and discoveries that are scheduled for the future. Dates that have a red triangle in the corner have discoveries: clicking on those dates will open a pop-up showing the name of those discoveries. Clicking on the date again will close the pop-up.

COMPONENT	DESCRIPTION
	Click this button to refresh the device list.
	Click this button to print the information in the device list.
	Click this button to open information about the discovery. Click the button again to close the information. A discovery that is in process can be paused or stopped from this window.
Devices	Information about the devices is displayed. The information can be sorted alphanumerically/reverse alphanumerically by clicking on a column header.

Driver Installation

The **Driver Installation** button provides options for installing drivers for your devices.

1. Select **Device > Device Management**.
2. Select a device for which the drivers will be installed.
3. Click **Driver Installation**.
The **Driver Installation** wizard opens.
4. Select to automatically find the driver file or to manually selected it from the uploaded drivers.



Driver files need to already be uploaded to the SyncThru server.

5. Click **Next**.
The driver download window will open.
6. Save and execute the setup file.
The driver will be automatically installed on your system.

Application Management

The **Application Management** button provides options for installing and managing applications on your devices.

Installing an Application

To install an application on one or more devices, follow these steps (at any time during the process, you can click **Cancel** to exit the process and close the window):

1. Select **Device > Device Management**.
2. Select the devices on which the application will be installed.
3. Click **Application Management** in the toolbox.
The **Application Management** wizard opens.
4. Select **Application installation**.
5. Click **Next**.
6. Select the application(s) to install.
7. Click **Next**.
8. Schedule the task.
9. Click **Finish**.



Only PAR files are accepted.

10. Click **Close**.

Uninstalling an Application

To uninstall an application from one or more devices, follow these steps (at any time during the process, you can click **Cancel** to exit the process and close the window):

1. Select **Device > Device Management**.
2. Select the devices from which the application will be removed.
3. Click **Application Management** in the toolbox.
The **Application Management** wizard opens.
4. Select **Application uninstallation**.
5. Click **Next**.
6. Select the application(s) to uninstall.
7. Click **Next**.
8. Schedule the task.
9. Click **Finish**.

Application Lifecycle Management

Application Lifecycle Management is used to start and stop applications running on devices. To manage applications, follow these steps (at any time during the process, you can click **Cancel** to exit the process and close the window):

1. Select **Device > Device Management**.
2. Select the devices on which the application will be installed.
3. Click **Application Management** in the toolbox.
The **Application Management** wizard opens.
4. Select **Application lifecycle control**.
5. Click **Next**.
6. Select the application(s) to control.
7. Click **Next**.
8. Select to either start or stop the application.
9. Click **Next**.
10. Schedule the task.
11. Click **Finish**.

License Activation

After installing an application, you will need to activate the license to allow full usage of the application. To activate the license, follow these steps (at any time during the process, you can click **Cancel** to exit the process and close the window):

1. Select **Device > Device Management**.
2. Select the devices on which the application will be installed.
3. Click **Application Management** in the toolbox.
The **Application Management** wizard opens.
4. Select **Activate license**.
5. Click **Next**.

6. Select the application(s) to activate.
7. Click **Next**.
8. Enter the license number for each application.
9. Click **Next**.
10. Schedule the task.
11. Click **Finish**.

License Deactivation

After installing an application, it may become necessary to deactivate its license. To deactivate the license, follow these steps (at any time during the process, you can click **Cancel** to exit the process and close the window):

1. Select **Device > Device Management**.
2. Select the devices on which the application is installed.
3. Click **Application Management** in the toolbox.
The **Application Management** wizard opens.
4. Select **Deactivate license**.
5. Click **Next**.
6. Select the application(s) to deactivate.
7. Click **Next**.
8. Schedule the task.
9. Click **Finish** to start the task.

Viewing Created Task History

Application Management history shows application tasks that have been performed using SyncThru™. See "Application Management History" on page 33.

Firmware Management

To upgrade one or more devices' firmware, follow these steps:

1. Select **Device > Device Management**.
2. Select the group to which the devices belong.
3. Select the devices for which to upgrade firmware.
4. Click **Firmware Management** in the toolbox.
The **Firmware Management** window opens.
5. Select a file to add and click **Add** at the bottom of the window.
If you want to upload a file from your local directory then click **File Upload** at the top of the window.
 - a. Enter the file information and click **Browse** to find the firmware file.
 - b. Click **Upload File** to add the file to the list of files that can be added.
6. Click **Next**.
7. Schedule the task by clicking on **Scheduling**, or start the task immediately by clicking on **Start Now**.
8. Click **Finish**.

A confirmation message will appear.



Clicking on **Firmware Management History** will redirect you to the **Firmware Management History** page.

9. Click **Close**.

Font/Form/Macro Management

The **Font/Form/Macro Management** function provides options for managing files stored on a device's storage unit. Follow the steps in the following sections to manage a device's files.

Adding a File

To upload a file to a device, follow these steps:



This process can also be performed by double-clicking on a device to expand the device's information and clicking on **Management**.


1. Select **Device > Device Management**.
2. Select the devices on which the file will be installed.
3. Click **Font/Form/Macro Management** in the toolbox.
The **Font/Form/Macro Management** wizard opens.
4. Select **Install**.
5. Click the checkbox(es) of the file(s) to add.

If the file does not exist, upload it by clicking  and click the checkbox(es) of the file(s).

6. Click **Next**.
7. Adjust the scheduling for when the setting changes are to take place.
The file will start being copied to the device's storage unit. Results of **Font/Form/Macro Management** can be checked under **Font/Form/Macro Management History** (see "Font/Form/Macro Management History" on page 35).
8. Click **Finish**.

Deleting a File

To delete a file from SyncThru, follow these steps:

1. Select **Device > Device Management**.
2. Double-click a device to open its information.
3. Click **Font/Form/Macro**.
4. Click the **Management** button.
5. Select the file(s) and click the  button.
6. Click **OK**.

Downloading a File

To download a file from SyncThru to a device, follow these steps:

1. Select **Device > Device Management**.
2. Double-click a device to open its information.
3. Click **Font/Form/Macro**.
4. Click the **Management** button.
5. Select the file(s) and click **Download**.



Only files whose “Persistence” field is not “Permanent” are downloadable.

Management History

The **Management History** sub-menu contains options for displaying the histories of firmware upgrades, file management, application management, and device configuration.

Application Management History

Application Management history shows application tasks that have been performed using SyncThru™. To view the application management history, follow these steps:

1. Select **Device > Management History > Application Management**.

The **Application Management** history page opens.

COMPONENT	DESCRIPTION
Tasks	This list shows application tasks that have been performed based on the filtering criteria. Clicking on an item in the list will display in the main pane the devices on which an application management task was performed.
Type	Use this pull-down menu to filter which type of application tasks are displayed. Options for this are All , In Progress , Pause , and Finished .
Filter	Use this pull-down menu to filter which type of firmware upgrade tasks are displayed. Options for this are All , Succeed , and Fail .
Operation	The name of the performed operation. This can be one of the following values: <ul style="list-style-type: none">• EAM Install task• EAM Start task• EAM Stop task• EAM Uninstall task• EAM Application Activate task• EAM Application Deactivate task
State	The state of performed operation. This can be one of the following values: <ul style="list-style-type: none">• WAITING• IN_PROGRESS• STOPPED• FAILED• SUCCEED
IP Address	Displays the device's IP address.
Device Serial Number	Displays the device's serial number.

The calendar is a quick way to tell which dates have had an application management task performed or have a task scheduled. Dates that have a red triangle in the corner have application management tasks: clicking on those dates will open a pop-up showing the name of those tasks. Clicking on the date again will close the pop-up.

Firmware Management History

Firmware Management history shows firmware upgrades that have been performed using SyncThru™. To view the firmware upgrade history, follow these steps:

1. Select **Device > Management History > Firmware Management History**.
The **Firmware Management History** page opens.

COMPONENT	DESCRIPTION
Tasks	This list shows firmware upgrades that have been performed based on the filtering criteria. Clicking on an item in the list will display in the main pane the devices on which the firmware upgrade was performed.
Filter	Use this pull-down menu to filter which type of firmware upgrade tasks are displayed. Options for this are All , Succeed , and Fail . <ul style="list-style-type: none"> • All: All devices in the firmware upgrade task will be displayed, regardless of result. • Waiting: Only devices in tasks that are waiting to begin. • In progress: Only devices in tasks that are currently in progress. • Stopped: Only devices that have firmware upgrading progress stopped by a user. • Failed: Only devices that firmware upgrading has failed for will be displayed. • Succeed: Only devices that firmware upgrading has succeeded for will be displayed.
Result	The result of upgrading the firmware of the device. After a firmware management task is finished, the result value will be either Success or Failed .
IP Address	Displays the device's IP address.
Serial Number	Displays the device's serial number.
Upgrade Date	Displays when the upgrading process was started.
File Name	Displays the firmware file name.
Start Main Version/NIC Version/Engine Version	Displays the initial firmware version for the specified device. If the task failed, these columns are not displayed.
Finish Main Version/NIC Version/Engine Version	Displays the final firmware version for the specified device. If the task failed, these columns are not displayed.
Error Code	Displays an error code if the task failed.

The calendar is a quick way to tell which dates have had a firmware upgrade performed and have firmware upgrades scheduled. Dates that have a red triangle in the corner have firmware upgrades: clicking on those dates will open a pop-up showing the name of those upgrade tasks. Clicking on the date again will close the pop-up.


Progress Panel

The progress panel located at the top of the main pane displays the overall progress of the upgrade process. Click on



to open the progress panel. The panel shows the following information for the currently selected firmware management task:

- **Execution Time**: The date and start/end time of the upgrading task.
- **Task State**: The state of the selected task.

The progress bar displays the current firmware upgrade progress (100% if finished). To close the panel, click the  button again. You can also control the firmware upgrade process by using the buttons available on the panel (pause, stop, and start).

Retrying a Firmware Management Task

You can also retry upgrading the firmware of specified devices by using the **Retry** button. The following are the available options:

- **Retry Failed**: Retry firmware management tasks for all devices that failed to upgrade.
- **Retry Selected**: Retry firmware management tasks for only the selected devices.

Some devices may have failed due to credentials being enabled on the device. To specify the credentials to use for these devices, follow these steps:

1. Select the necessary devices and click the **Set Credentials** button.
2. Click the **Retry** button at the top of the list.
The **Retry** menu is displayed.
3. Select the option.
A new firmware management task with the original firmware upgrade settings will be started for the devices.

Device Configuration History

Device Configuration History shows device configurations that have been performed using SyncThru™. To view the device configuration history, follow these steps:

1. Select **Device > Management History > Device Configuration History**.

The **Device Configuration History** page opens.

COMPONENT	DESCRIPTION
Task State	Displays whether or not the task completed successfully.
Start Time End Time	The times the task started and ended.
Devices Configured Devices Not Configured	The number of devices that were able to be configured and the number not able to be configured.

The calendar is a quick way to tell which dates have had a device configuration performed and have a device configuration scheduled. Dates that have a red triangle in the corner have configurations: clicking on those dates will open a pop-up showing the name of those tasks. Clicking on the date again will close the pop-up.

2. Select a task from the list in the left pane.



Double-clicking information in the list will open more information about the configured properties. This information will vary based on the property.

COMPONENT	DESCRIPTION
Tasks	This list shows device configurations that have been performed based on the filtering criteria. Clicking on an item in the list will display in the main pane the devices on which configuration was performed.
Filter	Use this pull-down menu to filter which type of configuration tasks are displayed. Options for this are All , Completed No Errors , Completed With Errors , Cancelled , and Finished .
Retry	Option to retry the selected tasks or all of the tasks.
Status	Displays whether or not the task completed successfully.
Device Name	Displays the device's name.
Device Model Name	Displays the device's model name.
Device Mac Address	Displays the device's MAC address.
Device Manufacturer	Displays the device's manufacturer.

Font/Form/Macro Management History

Font/Form/Macro Management History shows when files have been moved to or from the device's storage unit. To view the file storage history, follow these steps:

Select **Device > Management History > Font/Form/Macro Management History**.

The **Font/Form/Macro Management History** history page opens.

The calendar is a quick way to tell which dates have had a file storage task performed and have a file storage task scheduled. Dates that have a red triangle in the corner have file storage tasks: clicking on those dates will open a pop-up showing the name of those tasks. Clicking on the date again will close the pop-up.

3. Select a task from the list in the left pane.

COMPONENT	DESCRIPTION
Tasks	This list shows file storage tasks that have been performed based on the filtering criteria. Clicking on an item in the list will display in the main pane the devices on which a file storage task was performed.
Retry	Tries to perform the selected task again.
Filter	Use this pull-down menu to filter which type of font/form/macro tasks are displayed. Options for this are All , Succeed , and Fail . <ul style="list-style-type: none"> All: All devices in the font/form/macro upgrade task will be displayed, regardless of result. Waiting: Only devices in tasks that are waiting to begin. In progress: Only devices in tasks that are currently in progress. Stopped: Only devices that have font/form/macro upgrading progress stopped by a user. Failed: Only devices that font/form/macro upgrading has failed for will be displayed. Succeed: Only devices that font/form/macro upgrading has succeeded for will be displayed.

COMPONENT	DESCRIPTION
Result	Displays the result of the file storage task.
Information	Displays the name assigned to the file storage task.
Model Name	Displays the printer model affected by the task.
IP Address	Displays the printer's IP address.
Start Time	Displays the time the task was started.
Name	The name of the file.
File Type	Displays the type of file uploaded.
File Key	Displays the parsing key of the file.
Error Code	If an error occurs during the task, the error code is displayed here. Clicking on the error code will open the help file with more information about the code.

User


The **User** menu supports all the user-related operations such as user and user group management. This chapter gives you detailed information on the sub-menus under the **User** menu that help you manage users on the system.

User Group & List

The **User** menu provides options for adding users to **SyncThru** and assigning user roles.


Adding a User Group

To add a user group, follow these steps (at any time during the process, you can click **Cancel** to exit the process and close the window):

1. Select **User > User Management**.
2. Select the main group to which the new group will belong.
3. Click the  button in the left pane.
4. Enter the group's information.
5. Click **Add**.


Deleting a User Group

To delete a user group, follow these steps:

1. Select **User > User Management**.
2. Select the group(s) to delete.
3. Click the  button in the left pane.
A confirmation window opens.
4. Click **Yes**.

Editing a User Group

To edit a user group's information, follow these steps:


1. Select **User > User Management**.
2. Select the group to edit.
3. Click the  button in the left pane.
A confirmation window opens.
4. Click **Yes**.

Adding a User

To add an user to a group, follow these steps (at any time during the process, you can click **Cancel** to exit the process and close the window):




To import multiple users from CSV file or LDAP server, select **Import**.

1. Select **User > User Management**.
2. Select the group to which the users will be added.
3. Click the  button in the main pane.
4. Enter the user's information.
5. Click **Add**.

Deleting a User


To remove a user from a group, follow these steps:

1. Select **User > User Management**.
2. Select the group to which the users belong.
3. Select the user(s) to delete.
4. Click the  button in the main pane.
A confirmation window opens.
5. Click **Yes**.

Editing a User

To edit a user's information, follow these steps:

1. Select **User > User Management**.
2. Select the group to which the users belong.


3. Select the user(s) to edit.
4. Click the  button in the main pane.
The **Edit User** window opens.
5. Make changes to the user's information.
6. Click **Save**.

User Role Assignment

Roles can be assigned to users to give them specific sets of permissions for devices.

Assigning a Role

To assign a role to a user, follow these steps:

1. Select **User > User Management**.
2. Select the group to which the users belong.
3. Select users to which assign role(s).
4. Click **Role Assignment** in the toolbox.
The **Role Assignment** window opens.
5. To add a new role, follow these substeps:
 - a. Click the  button.
 - b. Enter a name for the role and select the permissions that will be assigned to the role.
 - c. Click **Add**.
6. Select the role to assign to the users.
7. Click **Execute**.

Viewing User Information

To view user information, follow these steps:

1. Select **User > User Management**.
2. Select the group to which the user belongs.
3. Select a sorting option from among **Ascending**, **Descending**, or **Custom**.
When selecting **Custom**, you can re-create the column list to view. Move the items from **Column List** to **Selected Column List**.
4. Click **Close**.

Mobile Dashboard






A new feature in SyncThru™ 6 is the ability to view widgets on your network-connected mobile device. Being able to monitor devices away from your desk is a useful new feature to assist in productivity and less down time for devices.

Overview

The Mobile Dashboard application is one of the latest additions to SyncThru™ 6, which is developed to access networked devices from anywhere. Mobile Dashboard enables users to efficiently manage and monitor network connected devices added to SyncThru™ 6 on a network-enabled, hand-held platform. This application integrates SyncThru™ 6 **Dashboard** widgets and displays them on the mobile device.

Application Navigation

The following are used to navigate within the Mobile Dashboard application:




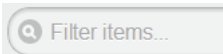
ICON	NAME	DESCRIPTION
	home	Returns to the home page.
	back	Returns to the previous web page.
	logout	Logs the user out of the application.
 / 	App Navigation	Navigates through the options and widgets in Mobile Dashboard.
	Refresh	Refreshes the information in the application.

Viewing Widgets

To view widgets on your mobile device, follow these steps:



Mobile Dashboard requires an active network for the application to run. Configure the network settings on your mobile device to gain access to the SyncThru™ 6 server.

1. Open a web browser on your mobile device and enter <SyncThru™ 6 server's URL>/m/index.html in the address bar.
2. Log-in to SyncThru™ 6.
3. Select the widget to display by scrolling through the widgets using the  and  buttons on the widget name bar at the top of the page (see "Understanding Widgets" on page 13 for information on the types of widgets).
4. Select the device group to view data for from the **Group name** pull-down list.
5. Pressing widget information below the group name will move to a screen with more information about the devices in that selection. For example, pressing **Error** on the **Device Status** widget screen will move to a page showing which devices belong to that data set.
 - a. Pressing the  next to a specific device will open a page with information about the selected device.
6. Limit which devices appear by entering a string in the filter field ().

File


The **File** menu supports all the file-related operations such as uploading application installation files, driver installation files, and files to store in the file storage. This chapter gives you detailed information on the sub-menus under the **File** menu that help you manage files on the system.

Plug-ins

The **File > Application > Plug-in** sub-menu provides options for remotely managing plug-in installation files stored in the SyncThru Admin 6 server's repository. These are for printing plug-ins that are installed at server level.


Uploading a Plug-in Installation File

To upload a plug-in installation file, follow these steps:

1. Select **File > Application > Plug-in**.
2. Click the  button.
The **Upload File** window opens.
3. Click **Browse** to find the file to upload (PAR format).
4. Click **Upload** to upload the file to the server.
The file will be listed in the **For Plug-in** list.

Removing a Plug-in Installation File



To remove a file from a server's file repository, follow these steps (at any time during the process, you can click **Cancel** to exit the process and close the window):

1. Select **File > Application > Plug-in**.
2. Select the file from the list.
3. Click on the  button.
4. Confirm the removal.
The file will be removed.

Viewing Files

To view what installation files have been uploaded to the server, follow these steps:

1. Select **File > Application > Plug-in**.

ITEM	DESCRIPTION
	Exports the file information as a .csv file.
	Prints the file information.
Name	The name of the plug-in.
Plug-in ID	The unique ID assigned to the plug-in.
Vender	The plug-in provider.
Version	The version of the plug-in.

Double-clicking on an installation file will expand the information to provide more details about the installation file. It is also possible to have several plug-ins included in one installation file.


ITEM	DESCRIPTION
Version	The version of the plug-in.
Type	The XOA plug-in's type: System , Platform , or Custom .
Provider	The unique ID assigned to the plug-in vendor.
Description	A description of the plug-in provided by the developers.
Signature	Displays whether or not the PAR file is signed.
Verified by	Displays whether or not the plug-in has been verified by Samsung.

Device Applications

The **File > Application > Device** sub-menu provides options for remotely managing device application installation files stored in the SyncThru Admin 6 server's repository. These are for applications that can be installed on individual, compatible devices.


Uploading an Application Installation File

To upload an application installation file, follow these steps:

1. Select **File > Application > Device**.
2. Click the  button.
The **Upload File** window opens.
3. Click **Browse** to find the file to upload (PAR format).
4. Click **Upload** to upload the file to the server.
The file will be listed in the **For Device Application** list.

Removing an Application Installation File



To remove a file from a server's file repository, follow these steps (at any time during the process, you can click **Cancel** to exit the process and close the window):

1. Select **File > Application > Device**.
2. Select the file from the list.
3. Click on the  button.
4. Confirm the removal.
The file will be removed.

Viewing Files

To view what installation files have been uploaded to the server, follow these steps:

1. Select **File > Application > Device**.

ITEM	DESCRIPTION
	Exports the file information as a .csv file.
	Prints the file information.
Package Name	The name of the file.
Provider	The application provider.
Release	The release version of the application
Description	A user entered description of the installation package.

Double-clicking on an installation file will expand the information to provide more details about the installation file. It is also possible to have several applications included in one installation file.

ITEM	DESCRIPTION
Name	The name of the application.
Application ID	The unique ID assigned to the application.
Vendor ID	The unique ID assigned to the application vendor.
Version	The version of the application.
Verification status	Displays whether or not the application has been verified by Samsung.

SNMP Agent

The **SNMP Agent** sub-menu provides options to add devices that are locally connected to a PC through a USB connection. The SNMP agent is installed on local PCs and discovers and adds local devices to SyncThru 6. SNMP agent executable files are uploaded and stored on the SyncThru server and can be downloaded by users to install on individual PCs.

Viewing SNMP Agent Information

To view the uploaded **SNMP Agent** executable files, follow these steps:

1. Select **File > Application > SNMP Agent**.
The **SNMP Agent Group** page opens.

The following table will describe the left pane.

COMPONENT	DESCRIPTION
All SNMP Agents	The All SNMP Agents section in the left pane displays the groups and sub-groups into which the files have been divided.

The main pane displays the files that are included in the group selected from the left side of the page.




To sort the information alphanumerically/reverse alphanumerically, click any column header to sort with that columns information.

COMPONENT	DESCRIPTION
Version	The version of the agent.
File Name	The name of the file.
OS	The operating system compatible with the agent.
OS Bit	The operating system bit compatible with the agent.
Date	The date the file was uploaded.
Installation	Click the button in this column to download the executable file.

Adding an SNMP Agent Group

Groups can only be added under the **Grouped** folder. There is no limit to the number of group levels that can be added and the steps for adding any group level will be the same. To add a group, follow these steps:


1. Select the group under which the new group is to be created.
2. Click the  button.

The **Add Group** window opens.

3. Enter the **Group Name** and **Description**.
4. Click **Add**.

Deleting an SNMP Agent Group

If a group is no longer needed, it can be deleted. The groups **All SNMP Agents**, **Ungrouped**, and **Grouped** cannot be deleted. To delete a group, follow these steps:

1. Select the group to be deleted.
2. Click the  button.

A confirmation window opens.

3. Click **Yes**.

Editing an SNMP Agent Group

If a group's functionality or name needs to be changed, this can be done by clicking on the edit button. The groups **All**, **Ungrouped**, and **Grouped** cannot be edited. To edit a group's information, follow these steps:


1. Select the group to be edited.

2. Click the  button.

The **Edit Group** window opens.

3. Enter the new **Group name** and **Description**.
4. Click **Add**.

Uploading an SNMP Agent File to the Server


1. Select **File > Application > SNMP Agent**.
2. Select the group from the left pane to which the file is to be added.
3. Click the  button from the main pane.
The **Upload File** window appears.
4. Click **Browse...** to select a driver file.
Files must be in EXE format.
5. Click the **Select** button to set the **Group name**.
6. Click **OK**.
7. Enter the files information.

COMPONENT	DESCRIPTION
File name	The name of the file.


COMPONENT	DESCRIPTION
Group name	The group to which the file is being added.
OS	The operating system compatible with the agent.
OS bit	The operating system bit compatible with the agent.
Description	Enter the description.
Application version	The version of the agent.

8. Click **Upload**.


Deleting an SNMP Agent File from the Server

1. Select **File > Application > SNMP Agent**.
2. Select the group from the left pane to which the file belongs.
3. Select the file to delete.
4. Click the  button from the main pane.
A confirmation window opens.
5. Click **Yes**.


Editing an SNMP Agent File's Information

1. Select **File > Application > SNMP Agent**.
2. Select the driver to be edited.
3. Click the  button from the main pane.
4. Modify the options.
5. Click **Yes**.

Exporting the File List

1. Select **File > Application > SNMP Agent**.
2. Select the files to export.
3. Click the  button.
4. Enter the file name.
5. Click **Yes**.

Printing the File List

1. Select **File > Application > SNMP Agent**.
2. Click the  button.
3. Select whether to print only the current page of files or the entire list.
A new window with the printable list opens.

Downloading an SNMP Agent File

1. Select **File > Application > SNMP Agent**.
2. Select the group from the left pane to which the file belongs.
3. Click the **Download** button in the **Installation** column to download the .exe file.

Font/Form/Macro



The **Font/Form/Macro** function provides options for managing files stored on a device's storage unit. Follow these procedures to manage a device's files:

Viewing Font/Form/Macro Files in SyncThru™

To view the stored files, follow these steps:



1. Select **File > Font/Form/Macro**.
The **Font/Form/Macro List** page opens.
The main pane displays the files that are included in the group selected from the left side of the page.

COMPONENT	DESCRIPTION
Font/Form/Macro Group	The Font/Form/Macro Group section in the left pane displays the groups and sub-groups into which the files have been installed.

COMPONENT	DESCRIPTION
	Exports the file information as a .csv file.
	Prints the file information.
Set File Key	This is only active when a PCL macro or PCL font file is selected. In case of selecting PS font and PS form, Set File Key is disabled. Click this button to modify the File Key of the selected file.
Name	The parsing name of the file.
File Type	The parsing type of the file.
File Key	The parsing key of the file.
Size	The size of the file.


Adding a Font/Form/Macro Files from a Desktop to SyncThru™

To upload a file from a desktop to SyncThru, follow these steps:

1. Select **File > Font/Form/Macro**.
2. Click the  button above the file list.
The **Upload File** window opens.
3. Click **Browse...** and find the file to upload.
 Only the given file types and ZIP files can be uploaded.
4. Click **Upload**.
The file will be uploaded.

Deleting a Font/Form/Macro File from SyncThru™

To delete a file from SyncThru, follow these steps:


1. Select **File > Font/Form/Macro**.
2. Select one or more files.
3. Click the  button.
A confirmation window opens.
4. Click **Yes**.

Updating a File Key

1. Select **File > Font/Form/Macro**.
2. Select one PCL macro or PCL font file.
3. Click **Set File Key**.
4. Enter a number between 0 and 32767 in the **File Key** field.
5. Click **OK** to update the key.

Exporting File Information

To export file information, follow these steps:

1. Select **File > Font/Form/Macro**.
2. Click the  button.
3. Select a save location for the file and save the file as a .csv file.

Firmware

The **File > Firmware** sub-menu provides options for remotely managing firmware files stored in the SyncThru™ Admin 6 server's repository, including uploading the firmware files from the SyncThru™ server and downloading the files from the server to a computer. Firmware for multiple devices can be updated at once instead of one-by-one. If credentials are enabled on the device, upgrading firmware will fail. You will need to configure the credentials with the **Connection Settings** button (see "Connection Settings" on page20).

Follow these steps to manage a device's firmware files:





This feature is only supported by Samsung devices.

Viewing Firmware Files

To view the firmware files stored in the SyncThru™ database, follow these steps:

1. Select **File > Firmware**.
The **Firmware List** page opens.

COMPONENT	DESCRIPTION
	Exports the file information as a .csv file.
	Prints the file information.
File Name	The name of the firmware file.
Size	The size of the firmware file.
Version	The firmware version.
Uploading Date	The date and time the firmware was uploaded.
Model	The type of device supported by the firmware.
Comment	Any text comment for the file.
Download Firmware	Displays the Download button to download the firmware file to your hard drive.

Uploading Firmware Files

To upload a firmware file to SyncThru, follow these steps:

1. Select **File > Firmware**.

2. Click the  button.

The **Upload New File** window opens.



The version can be alphanumeric, '_', or '-' (e.g. 1.0.0.0_EX, 1.0.0, 1.0 or 1) with each character separated by a space.

3. Enter the file information and click **Browse** to find the firmware file.
4. Click **Upload File** to upload the selected file to the server.
5. Click **OK**.


Downloading a Firmware File

To download a firmware file from SyncThru to store locally, follow these steps:


1. Select **File > Firmware**.
2. Select the file to download.
3. Click the **Download** button in the **Download Firmware** column.
4. Go to the directory where the file is to be saved.
5. Click **Save**.

Deleting Firmware File(s)

To delete firmware files, follow these steps:

1. Select **File > Firmware**.
2. Select the firmware file(s) to remove.
3. Click the  button.

Modifying a Firmware File

1. Select **File > Firmware**.
2. Select the specific firmware file you want to modify.
3. Click the  button.

You can modify the **Model**, **Version**, and **Comment** information, which may work as an identifier for the file.

Driver File Management


The **Driver** sub-menu provides a list of printer drivers that can be installed for discovered printers.

Viewing Driver Files


To view the drivers files, follow these steps:

1. Select **File > Driver**.
The **All Drivers** page opens.
2. Select a group from the left pane to view drivers assigned to the selected group.


Adding a Driver Group

1. Select **File > Driver**.
The **All Drivers** page opens.
2. Select the group that the new group is to be created under.
3. Click the  button in the left pane.
The **Add Group** window appears.
4. Enter the group name and description.
5. Click **Add**.


Modifying a Driver Group


1. Select **File > Driver**.
The **All Drivers** page opens.
2. Select the group to be modified.
3. Click the  button in the left pane.
The **Edit Group** window appears.
4. Make changes.
5. Click **OK**.

Deleting a Driver Group

1. Select **File > Driver**.
2. Select the group to be deleted.
3. Click the  button in the left pane.
A confirmation window appears.
4. Click **Yes**.


Uploading a Driver File to the Server

1. Select **File > Driver**.
2. Click the  button from the main pane.
The **Upload File** window appears.
3. Click **Browse...** to select a driver file.
Driver files must be in ZIP format. For Samsung printers, only upload "Universal Print Driver".
4. Click the **Select** button to set the **Group name**.
5. Click **OK**.
6. Set options.


COMPONENT	DESCRIPTION
OS	The operating system compatible with the driver.
OS bit	The operating system bit compatible with the driver.
Description	Enter the description.
Driver version	Enter the driver's version.
Driver model name	Enter the model name that is appropriate for the driver file.
Vendor	Enter the vendor name.
Supported models	Add the printer models supported by the driver, by clicking the  button. For Samsung drivers; select the "Samsung" check box.
Driver type	Select the driver's language type such as PCL or PS.
Default	Select this to make the driver default from among multiple drivers for the same device.

7. Click **Upload**.


Deleting a Driver File from the Server

1. Select **File > Driver**.
2. Select the driver to delete.
3. Click the  button from the main pane.
A confirmation window opens.
4. Click **Yes**.


Editing a Driver File's Information

1. Select **File > Driver**.
2. Select the driver to be edited.
3. Click the  button from the main pane.
4. Modify the options.
5. Click **Yes**.

Exporting the Driver File List

1. Select **File > Driver**.
2. Select the files to export.
3. Click the  button.
4. Enter the file name.
5. Click **Yes**.

Printing the Driver File List

1. Select **File > Driver**.
2. Click the  button.
3. Select whether to print only the current page of files or the entire list.
A new window with the printable list opens.

Reports

This chapter explains the report and analysis functionality SyncThru™ 6 provides.

Overview

SyncThru™ 6 provides reporting capabilities for devices. You can create, display, and send reports on statuses, usage, alerts, consumables, assets and accounting information. The data is collected in a database that can be used to generate reports.

Basically, SyncThru™ 6 analyzes devices' information with time, historical reports, current reports, and pro-active reports. A historical report is used to provide analysis for accumulated data and a proactive report is to provide forecasting based on the collected data. You can better understand your printing environment using these various reports.





Please click **Settings** menu, then in the left pane, **System > Data Management** to set the report time (see "Data Management" on page62).

Viewing the Report Categories

The following table describes what kinds of reports SyncThru™ 6 provides:

TYPE			DESCRIPTION
SLA	History	Operation Rate History	Shows how much time for which the device was working properly based on the time required to fix faults and faults that occur during working time.
		Supply Provision Rate History	Shows an overview of how long it has taken for supplies to be delivered and the corresponding faults corrected. For example, supply delivery time for toner low is set to 48 hours. If the service person does not deliver the toner within 48 hours, the "In Time Rate" is 0 and if it is delivered within the supply delivery time, the "In Time Rate" is 100.
		Trouble Fix Rate History	Shows the average resolution time for fixing faults and the total number of faults.
Supply	Historical	Supply Lifecycle Details	Shows toner lifecycle, such as when it was installed, generated low toner warnings, and more.
		Supply Lifecycle	Shows statistics for toner changing history including average time and counts.
	Current	Supply Current Information	Shows current consumables status and remaining level configured with supply type, toner type, and state.
	Forecast	Supply Forecast	Shows estimation for how many toners should be bought for the specified period configured with supply type, toner type, and state.
		Supply Details Forecast	Shows estimation for when to replace toner for the specified devices configured with supply type and toner type.
Assets	Current	Tray Information	Shows current tray information of devices.
	History	Assets Information History	Shows asset changes history for the following asset types for a select time period: <ul style="list-style-type: none">• IP• Location• Registration• Group changes

TYPE		DESCRIPTION	
Job Accounting	History	Device Usage	Shows accounting activity for each device and for users associated with it.
		User Usage	Shows accounting activity for users and jobs performed by users along with the devices with which the user is associated.
		User Group Usage	Shows accounting activity for user groups and users in the group, and a list of devices with which the user group is associated.
		User Group Summary Usage	Shows overall accounting activity for all user groups.
Device Usage	Current	Device Total Usage	Shows the current state of device usage count.
		Device Detailed Usage	Shows usage count grouped by various combinations.  <ul style="list-style-type: none"> This report is available only for Samsung devices. You can see "Units" in Report Settings or Analysis Settings. This option is for configuring unit for usage data. Available options are "Impressions" or "Sheets". Usage data collection works like this: Devices send impression count to SyncThru™ 6 and impression based report includes exact count. If you select a "Sheets" based report, SyncThru™ 6 calculates sheet count using impression count collected from devices. Therefore Sheet count is approximate Job Type is also an option for generating reports.
	History	Device Peak Usage History	Shows hourly distribution of printed pages based on total count information.
		Device Total Usage History	Shows how many pages were printed during the specified period. It uses total count information.
		Device Detailed Usage History	Shows usage count grouped by various combinations.  <ul style="list-style-type: none"> This report is available only for Samsung devices. You can see "Units" in Report Settings or Analysis Settings. This option is for configuring unit for usage data. Available options are "Impressions" or "Sheets". Usage data collection works like this: Devices send impression count to SyncThru™ 6 and impression based report includes exact count. If you select "Sheets" based report, SyncThru™ 6 calculates sheet count using impression count collected from devices. Therefore Sheet count is approximate. Job Type is also an option for generating reports.
Troubles	Current	Current Troubles	Shows current errors on devices configured by severity level and trouble open time.
	History	Trouble Status History	Shows the error history for devices configured by severity level and trouble open time.
		Device Availability History	Shows the downtime history for devices.
		Trouble Most Frequent History	Shows the errors occurring most frequently on devices.
		Trouble Recovery Time History	Shows how long the devices where in error status before being resolved by error type.
		Severity Recovery Time History	Shows how long the devices where in error status before being resolved by severity type.
Device	Current	Device List	Shows the current device list.
	History	Device Lifecycle History	Shows the history of devices in SyncThru™ 6 from discovery to deletion.

Report

Reports have a slightly different concept for analyzing devices' data from **Analysis**. You can see more options like **Schedule** and **Device List**, which lets you generate reports with individual devices. In the case of the **Report** menu, SyncThru™ 6 generates reporting data when you configure options and select devices, which is the main difference from the **Analysis** sub-menu. You can generate a wider variety of reports with the **Reports** menu.

With Reports, you can

- see the history for reports you created,
- generate various reports based on your configuration,
- schedule reports, and
- email reports.

Generating Reports

1. Select **Report > Report Creation & History**.
2. Click **Create Report** in the toolbox.
The **Create Report** wizard opens.
3. Select the report type you want to generate from the **Report Type**.
4. Click **Next**.
5. Each report type will have different options over the next few screens that can be selected. Select the options and click **Next** for each screen.
6. On the **Select Report Options** screen, name the report, select whether or not to email the report to a recipient.
7. Click **Next**.
8. Schedule when the report will be generated.
9. Click **Execute**.

You can view the generated reports on the **Report > Report Creation & History** main page.

Analysis

Analysis is to provide useful information with simple options. You can quickly and easily get the analysis since SyncThru™ 6 aggregates the analysis every time its database is updated.

With the Analysis menu, you can

- see an analysis based on a device group (not for an individual device),
- easily see different analyses by changing settings options, such as period,
- export analysis results to a PDF or CSV file,
- print the results, and
- send the results to a recipient via email.

Analyzing

To run an analysis, follow these steps:

1. Click **Report > Analysis**.
2. From **Analysis Type** in the left pane, select the analysis type to be performed.



See "Viewing the Report Categories" on page 48 for a list of analyses types (same as reports).

3. From **Device Group** in the left pane, select the group for which you want to see an analysis.
4. If necessary, change the settings in the **Settings** section in the main pane.

The results can be viewed in the **Analysis Results** section of the main pane.

Rule



Rule-based task automation allows the administrator to create rules and manage tasks according to the rule's conditions and actions. Any rule created is always bound to some event. Based on the selected event the number of available conditions and actions will be different.

This chapter includes:


- Adding/Editing a New Rule
- Deleting a Rule
- Events

Adding/Editing a New Rule

Follow these steps to add a new rule:

1. Select **Rule > Rule Management**.
2. Select an event from the left pane (see "Events" on page52 for a description of the events).
3. In the main pane, click  to add a new rule (see "Conditions" on page52 and "Actions" on page52 for information on conditions and actions). To edit a rule, check a rule name and click .


The **Add Rule Wizard** opens.

4. From the **Condition List**, select the condition(s) that you want to be met before the rule's action will trigger.
5. Click  to add the condition(s) to the **Rule** list.



You can add the same condition multiple times to the rule.

Some words in the **Rule** may appear as an underlined link when added to the **Rule** list. These items need to be changed to a specific condition. For example, if "group" appears in blue, click on the word "group" and select a specific group to apply to the rule.

6. Click **Next**.
7. From the **Action List**, select the action(s) that you want to take when the specified conditions are met.
Some words in the **Action List** may appear as an underlined link when added to the **Rule** list. These items need to be changed to a specific condition. For example, if "group" appears in blue, click on the word "group" and select a specific group to apply to the rule.
8. Click  to add the action(s) to the **Rule** list.




You can add the same action multiple times to the rule.

9. Click **Next**.
10. Enter the rule's information.
11. Click **Finish**.


Deleting a Rule

Follow these steps to delete a rule:

1. Select **Rule > Rule Management**.
2. Select the event that the rule has been applied to from the left pane.
3. Select the rule(s) to delete from the main pane.
4. Click .
5. Confirm the deletion.

Modifying a Rule

Follow these steps to delete a rule:

1. Select **Rule > Rule Management**.
 2. Select the event that the rule has been applied to from the left pane.
 3. Select the rule to modify from the main pane.
 4. Click .
- The **Modify Rule Wizard** opens.
5. Make changes.

Events

Each device event will have conditions that will need to be met before the given actions will be performed.


Events

There are currently five (5) device events that can be applied to devices. Each event will have mostly the same conditions to apply with very minor differences. The following are the events available in the **Event List** in the left pane:

RULE ELEMENT	DESCRIPTION
Device added to group	When a device has been added to a device group, it meets the rule's primary requirement.
Device removed from group	When a device has been removed from a device group, it meets the rule's primary requirement.
Device added to system	When a device has been added to the system, it meets the rule's primary requirement.
Device alert detected	When a device has an error that needs to be checked by an administrator, it meets the rule's primary requirement.
Device state changed	When a device's state changes, it meets the rule's primary requirement.

Conditions

Conditions are extra items that can be set by the user to be met before an action will activate. Some conditions will have parameters that need to be set by the user. These parameters will appear underlined in the condition text. The following are possible conditions that can be selected for some or all events:

CONDITION	DESCRIPTION
device in list	When the device in the event is in the selected device list the condition is met. Select a device and then click Add to add it to the list. This condition will act as a filter and test the device in the event against the list of selected devices. "list" is the parameter for this condition. Click on "list" to set the parameter.
device is manufactured not by Samsung Electronics, Ltd.	When a device is not manufactured by Samsung Electronics, the condition is met. This condition has no parameters.
device is manufactured by Samsung Electronics, Ltd.	When a device is manufactured by Samsung Electronics, the condition is met.
device property conditions	When a device's property meets the given condition for the given Property value , the condition is met. "conditions" is the parameter for this condition. Click on "conditions" to set the parameter. More than one parameter can be set by clicking on the  button.
device belongs to group group	When a device belongs to the selected group, the condition is met. "group" is the parameter for this condition. Click on "group" to set the parameter.
device group is group	When a device group is the selected group, the condition is met. "group" is the parameter for this condition. Click on "group" to set the parameter.
alert in list	When the selected alert occurs in the selected machine, the condition is met. "list" is the parameter for this condition. Click on "list" to set the parameter.

Actions

Alerts are the actions that will be taken when all of the conditions in a rule are met. Some actions will have parameters that need to be set by the user. These parameters will appear underlined in the action text. The following are possible actions that can be selected for events:

RULE ELEMENT	DESCRIPTION
apply connection settings	This action will allow the administrator to change the device's connection settings to the settings configured in the parameter. "connection settings" is the parameter for this action. Click on "connection settings" to set the connection settings to use.
add alert trap	This action will register SyncThru as a trap receiver for the selected devices.
move device to group	This action will move devices to the group specified in the parameter. "group" is the parameter for this action. Click on "group" to select the group.

RULE ELEMENT	DESCRIPTION
apply device configuration template	This action will allow the administrator to change the device configuration by applying the configuration template. "template" is the parameter for this action. Click on "template" to select the template to use for device configuration.
send message to Twitter	This action will allow the administrator to send a message to Twitter with the selected information. "message" is the parameter for this action. See "Twitter Notification" on page62 for information on configuring Twitter notifications. Click on "message" to set up the Twitter message.
send email message	This action will allow the administrator to send a message to a user with the selected information. "email" is the parameter for this action. Click on "email" to set up the email message to send.

Plug-in


The **Plug-in** menu provides options to install, start, stop, and uninstall plug-ins on the server.

Plug-in Management

The **Plug-in > Plug-in Management** sub-menu provides options for remotely managing plug-ins of the SyncThru Admin 6 server.

Installing a Plug-in

To install a new plug-in, follow these steps:

1. Select **Plug-in > Plug-in Management**.
2. Click the  button at the bottom of the left pane.

The **Install New Plug-in** window opens.




The installation file must be already uploaded to the server's file repository.

3. Click **Search** to look for a specific plug-in or scroll through the list of plug-ins available and select the plug-in.
4. Click **Next**.
5. Accept the license agreement and click **Next**.
6. Click **Install**.
7. Click **Close**.

Removing a Plug-in

To uninstall a plug-in, follow these steps:

1. Select **Plug-in > Plug-in Management**.
2. Select the application from the **Plug-in List** on the left.
3. Click the  button.
4. Confirm the uninstallation.
The plug-in will be removed.

Viewing Files

To view what plug-ins have been installed on the server, follow these steps:

1. Select **Plug-in > Plug-in Management**.
The installed plug-ins will be on the left side under **Plug-in List**.
2. To view a plug-in's information select it from the list.
The plug-in's information will be in the main pane.

ITEM	DESCRIPTION
Version	The version of the plug-in.
Plug-in ID	The unique ID assigned to the plug-in.
Vendor ID	The plug-in provider.
Run status	Displays whether the plug-in is enabled or disabled.
Start/Stop	Click to start/ stop the plug-in.
Description	A description of the plug-in provided by the developers.
Device Limit No	The maximum number of devices with which the plug-in can be used.

Starting a Plug-in

To start a plug-in, follow these steps:

1. Select **Plug-in > Plug-in Management**.
2. Select the plug-in from the **Plug-in List** on the left.
3. Click **Start** in the main pane.

Stopping a Plug-in

To stop a plug-in, follow these steps:

1. Select **Plug-in > Plug-in Management**.
2. Select the plug-in from the **Plug-in List** on the left.
3. Click **Stop** in the main pane.

Accounting

Accounting supports basic accounting functionality to track all jobs within your imaging and printing environments, and helps to save costs and reduce overuse. To start printing, users need to configure user account IDs and passwords with the printer driver settings that support the SyncThru™ 6. For scanning, copying or faxing, users need to enter valid IDs and passwords on the device when starting the jobs.

Setting Accounting

Enabling the Accounting Feature

To enable accounting on devices, follow these steps:

1. Select **Accounting > Accounting Management**.
2. Select the group from the left pane.
3. Select the devices from the main pane.
4. Click **Accounting Settings** in the toolbox.
5. Select **Enable job accounting**. You can also set an access code that will be required by users to use the device.
6. Click **Next**.
7. Schedule when the changes will start.
8. Click **Next**.
9. Click **Finish**.

Disabling the Job Account Feature

To disable accounting on devices, follow these steps:

1. Select **Accounting > Account Management**.
2. Select the group from the left pane.
3. Select the devices from the main pane.
4. Click **Accounting Settings** in the toolbox.
5. Select **Disable job accounting**.
6. Click **Next**.
7. Schedule when the changes will start.
8. Click **Next**.
9. Click **Finish**.




Resetting Accounting Usage

To reset accounting usage for a device, follow these steps:

1. Select **Accounting > Accounting Management**.
2. Double-click a device in the main pane to expand the device information.
3. Click the **Accounting** tab.
4. Click **Reset Accounting Usage**.

Viewing Accounting Job Records

To view job records, follow these steps:

1. Select **Accounting > Accounting Management**.
2. Select a device from the main pane.
3. Click **Job Records** in the toolbox.
4. The records can also be deleted (), exported (), or printed ().
5. Click **Close**.

Collecting Accounting Job Records

To collect job records from a device, follow these steps:

1. Select **Accounting > Accounting Management**.
2. Double-click a device in the main pane to expand the device information.
3. Click the **Accounting** tab.
4. Click **Collect Job Record**.

Setting Permissions

Permissions are used to assign user and group usage rights to devices. Once permissions are assigned, the permissions can be viewed by clicking on the **Modify Users** button.


Defining User or Group Permission

1. Select **Accounting > Accounting Management**.
2. Select the group from the left pane.
3. Select the devices from the main pane.
4. Click **Apply User Permission** or **Apply Group Permission** in the toolbox.
The **Apply User Permission** or **Apply Group Permission** window opens.
5. Select the users or group.
6. Click **Next**.
7. Set permissions by checking **Unlimited** or entering a specific number.
8. Click **Next**.
9. Schedule the changes.
10. Click **Next**.
11. Click **Finish**.

Viewing User or Group Permissions

1. Select **Accounting > Accounting Management**.
2. Select the group from the left pane.
3. Double-click a device in the main pane to expand the device information.
4. Click the **Accounting** tab.
5. Click **Modify Users** or **Modify Groups** to view the assigned permissions.

Importing User or Group Permissions

1. Select **Accounting > Accounting Management**.
2. Select the group from the left pane.
3. Check the device(s) from the main pane.
4. Click **Import Permission** in the toolbox.
The **Import Permission** window opens.
5. Select **Import user permission** or **Import group permission** and select the file to import.
 -  • The type of permissions file is CSV. The following should be column headers for a user permission file: UserId, CopyColor, CopyMono, PrintColor, PrintMono, Fax, Scan.
 - The following should be headers for a group permissions file: GroupId, CopyColor, CopyMono, PrintColor, PrintMono, Fax, Scan.
6. Click **Upload File**.
The file will be uploaded.
7. Click **Close**.

Exporting User or Group Permissions

1. Select **Accounting > Accounting Management**.
2. Select the group from the left pane.
3. Double-click a device in the main pane to expand the device information.
4. Click the **Accounting** tab.
5. Click **Export User Permission** or **Export Group Permission**.
6. Select to save or open the file.

Viewing the Management History

Viewing the Accounting History

1. Select **Accounting > Management History > Accounting History**.
The **History** page opens.
2. Select the date and task from the left pane.
Information about the task will appear in the main pane.

Viewing the Group Permissions History

1. Select **Accounting > Management History > Group Permission History**.
The **History** page opens.
2. Select the date and task from the left pane.
Information about the task will appear in the main pane.

Viewing the User Permissions History

1. Select **Accounting > Management History > User Permission History**.
The **History** page opens.
2. Select the date and task from the left pane.
Information about the task will appear in the main pane.

Settings

This chapter explains the **Settings** menu where you can configure basic settings for SyncThru™ 6.

Overview


There are seven (7) main categories in the **Settings** menu.

COMPONENT	DESCRIPTION
Network	<ul style="list-style-type: none">• Proxy: Configure proxy server settings (see "Proxy" on page57).• LDAP: Configure LDAP server settings (see "LDAP" on page58).• NTLM Domains: Configure NTLM domain settings (see "NTLM Domains" on page58).
Log	You can see SyncThru™ 6 log messages and configure logging options (See "Log" on page59).
System	<ul style="list-style-type: none">• HTTP Security: Configure SyncThru™ 6 web server settings, configure certificate, or authentication (see "HTTP Security" on page60).• User Role Management: (see "User Role Assignment" on page38.)• Large Paper Settings: Configure which paper sizes are considered large and which are considered small (see "Large Paper Settings" on page61).• SyncThru Discovery: See other SyncThru™ servers on the network (see "SyncThru Discovery" on page62).• File Management: Configure the maximum file size allowed for uploading (see "File Management" on page62).• Data Management: Configure how SyncThru™ 6 will handle old data (see "Data Management" on page62).
Notification	<ul style="list-style-type: none">• Twitter: Set up notifications via Twitter (see "Twitter Notification" on page62).• SMTP: Configure SMTP server settings (see "SMTP" on page64).
Tasks	<ul style="list-style-type: none">• Scheduled Tasks: Information related to tasks that are currently scheduled (see "Scheduled Tasks" on page65).• Completed Tasks: Information related to tasks that have been completed (see "Completed Tasks" on page65).
Device	<ul style="list-style-type: none">• Alert List: See the alerts (see "Alert List" on page65).• Blocked Devices: See the blocked devices that have been blocked when deleted from the Device List (see "Blocked Devices" on page68).• Connection: Configure SNMP default settings (SNMPv1, SNMPv2 and SNMPv3), SWS credentials and Account settings for locally connected devices (see "Connection" on page67).• Device Data Collection: Add/delete or arrange the schedule to collect the device's data information (see "Device Data Collection" on page67).• Passive Device Discovery: Configure passive discovery settings (see "Passive Device Discovery" on page66).• Device Supply Levels: Configure when alerts will be sent for supplies by device (see "Group Supply Levels" on page69).• Group Supply Levels: Configure when alerts will be sent for supplies by model group (see "Group Supply Levels" on page69).
Accounting	Configure accounting settings like job records collection intervals and the default access code (see "Accounting Settings" on page69).

Network

Proxy

You can configure a **Proxy** server for SyncThru 6's proxy and the features that use proxy settings, like Twitter notifications. Select **Settings > Network > Proxy**.

COMPONENT	DESCRIPTION
Direct connection to the internet	Select this item to connect network without any settings.
Load from system setting	If you already have a proxy server setting in your system, select this item to load it.
Manual proxy configuration	Select this item to enter options manually.
HTTP Proxy Port	The HTTP proxy server's IP address and port. Click Validate to test the connection. This is enabled if Manual proxy configuration is selected.
HTTPS Proxy Port	The HTTPS proxy server's IP address and port. Click Validate to test the connection. This is enabled if Manual proxy configuration is selected.
No proxy for	A list of hosts that do not require a proxy server connection. To add a new host to the list, click the  button and enter the host name. This is enabled if Manual proxy configuration is selected.
Enable proxy authentication	Select this option if the proxy server requires authentication to be used. Enter the User name and Password required. This is enabled if Manual proxy configuration is selected.
Test URL	Enter a web site outside of the intranet and click Send Test to test the proxy server's settings.


Applying a Proxy Server

1. From SyncThru™ 6, click **Settings** menu > **Network** > **Proxy**.
2. Set options.
3. Click **Apply**.


LDAP

You can configure **LDAP** servers for the LDAP-related features, such as device discovering with LDAP or using LDAP user accounts.


Adding an LDAP Server

1. Click **Settings**.
2. In the left pane, select **Network** > **LDAP**.
3. Click the  button in the **LDAP** panel.
The **Add LDAP Server** window appears.
4. Enter the LDAP server's information and click **Check Server** to test the connection.
5. Click **OK**.

Editing an LDAP Server

1. Click **Settings**.
2. In the left pane, select **Network** > **LDAP**.
3. Select the LDAP server to edit.
4. Click the  button in the **LDAP** panel.
The **Edit LDAP Server** window appears.
5. Type in the configuration you want to use.
6. Click **OK**.

Deleting an LDAP Server


1. Click **Settings**.
2. In the left pane, select **Network** > **LDAP**.
3. Select the LDAP servers you want to delete.
4. Click the  button in the **LDAP** panel.
After confirmation, the specified servers will be removed.

NTLM Domains

NTLM Domains (NT LAN Manager) are used for authentication where Kerberos is not being used. Other situations in which it is better to use NTLM instead would be the client is authenticating with a server using an IP address, the client is authenticating with a server that is in a different Active Directory, the client is authenticating with a server that doesn't belong to any domain, there is no Active Directory, or a firewall is blocking the ports required by Kerberos.

Adding an NTLM Domain

Follow these steps to add an NTLM Domain:


1. Click **Settings**.
2. In the left pane select **System > NTLM Domains**.
3. Click the  button.

The **Add NTLM Domain** window opens.


COMPONENT	DESCRIPTION
Domain name	The name of the NTLM domain.
PDC address	The address of the Primary Domain Controller (see "Glossary" on page 101 for a definition).
Login	(Optional) The login ID for the domain.
Password	(Optional) The password for the domain.

4. Enter the domain information.
5. Click **Validate** test the connection.
6. Click **Add**.

Editing an NTLM Domain

1. Click **Settings**.
2. In the left pane select **Network > NTLM Domains**.
3. Select a domain and click the () button.
The **Edit NTLM Domain** window opens.
4. Enter the new information.
5. Click **OK**.

Deleting an NTLM Domain

1. Click **Settings**.
2. In the left pane select **Network > NTLM Domains**.
3. Select the NTLM domain you want to delete.
4. Click the  button.
After confirmation, the selected domains will be removed.

Log

Event Log

You can see the log messages SyncThru™ 6 provides. Log messages are created by SyncThru™ 6 to record user activity. To view the log messages, follow these steps:

1. Click **Settings**.
2. In the left pane, select **Log > Event Log**.
The **Event Log** window opens.

COMPONENT	DESCRIPTION
Category	The application from which the log message originates.
Computer	The computer hosting SyncThru™ 6 from which the log message was created.
Description	Description of the logged event.
Event	The type of event that occurred (e.g., Login or Rule added).
Event Time	Time when the event was logged.
Event Type	Indicates the criticality level of the event: Information , Warning , Error , Success Audit , Failure Audit .
User ID	The user logged in when the logged action was performed.
Log Type	The type of log: Application or Security .

Debug Log

The **Debug Log** setting is used to select which logs are stored on the server. To set the debug log levels, follow these steps:

1. Click the **Settings**, then in the left pane, select **Log > Debug Log** to configure log messages.
2. Set an option to debug and click **Apply**.

HTTP Security

You can configure SyncThru™ 6 server settings including HTTPS connection and certification configuration. From SyncThru™ 6, click **Settings**, then in the left pane, select **System > HTTP Security**.

Configuring web server settings

SyncThru™ 6 is a web based management server. By default, it works with HTTP port, 8080. Or if your server works with HTTPS, it uses HTTPS port, 8081. Set the network information on **HTTP Port/HTTPS Port**.

- **To enable SSL:**

If you want to use a secure connection, you can use HTTPS by enabling the SSL. Click the checkbox for **Enable SSL**.



- If you enable SSL, all the communications between SyncThru™ 6 and your web browser are sent encrypted by HTTPS.
- Please make sure that your SyncThru™ 6 has a certificate. If there is no certificate, you cannot enable SSL (see "Creating Certificates" on page 60).

SSL and Certificates

If you want to use an SSL connection for security, you need to configure a certificate, which is required for the secured connection. SyncThru™ 6 does not provide the default certificate.

Creating Certificates

Click the **Settings** menu, then in the left pane, select **System > HTTP Security**.

- If the status is **Certificate configured**, there is already a certificate installed. In this case, you can see the details of the installed certificate with **Certificate Details** button (see "Viewing Certificates" on page 60).
- If the status is **Certificate Not Configured**, there is no certificate installed. Click **Certificate Configuration**. There are two options for certificate settings:
 - **Create Self-Signed Certificate**: Creates a certificate using SyncThru™ 6's provided functionality.
 - **Upload Existing Certificate**: Uploads the certificate already issued by the external or internal certificate authority.

Preparing a Certificate Signing Request

If there a Self-Signed Certificate which has to be signed by a Trusted Authority, it requires a CSR.

In the **Certificate Configuration** window, select the Self-Signed Certificate and click **Prepare**. This will generate a CSR text in a pop-up window which can be pasted in a file and sent to a Trusted Authority to verify the certificate

Viewing Certificates

If there is a certificate installed, click on **Certificate Details** to see the details of the installed certificate.

Enabling SSL Connection (HTTPS)

From SyncThru™ 6, click the **Settings** menu, then in the left pane, select **System > HTTP Security**. Select the checkbox for **Enable SSL**.



Please make sure that you enter `https://ip_address:https_port_number` in your web browser address bar when SSL is enabled. If you type `http://ip_address:https_port_number` or `https://ip_address` in the web browser address bar, the page will not load.

Disabling SSL Connection (HTTPS)

From SyncThru™ 6, click the **Settings** menu, then in the left pane, select **System > HTTP Security**. Deselect the checkbox for **Enable SSL**.



At any time, only one port (HTTP or HTTPS) will be available. Applications cannot be accessed over both HTTP HTTPS simultaneously.

Authentication

Authentication is for maintaining SyncThru™ 6 access rights. If you enable the **Authentication**, SyncThru™ 6 requires a user account when logging-in to SyncThru™ 6 via a web browser. Choose one of the **Authentication types** according to the security policy for your site. **Authentication types** are **Local Authentication**, **LDAP Authentication** and **Domain Authentication**.



- If a user using IE in Windows uses the domain account and if the user's domain account is registered in SyncThru™ 6, while **Domain Authentication** is on, SSO (Single Sign On) is applied when the user logs in to the PC. So, if the user opens SyncThru™ 6 from an SSO applied PC, the user does not need to log in to SyncThru™ 6: the user is automatically logged in.
- If you configure the authentication during setup, SyncThru™ 6 will use **Local Authentication**.

User Role Management

SyncThru™ 6 can assign user roles to users. A role is a set of permissions for using SyncThru™ 6 features. Once a role is assigned to a user, the user will have access to the permissions designated by the role.

For example, if account A has only device add permission, account A can use the device add feature only. If an account has Admin role, which is provided as a default, that account can use all the features after logging-in to SyncThru™ 6. After assigning a role to an account, you need to enable authentication then log in to SyncThru™ 6 to use this feature.


With User Roles, you can:

- view user roles.
- modify permissions for user roles (see "Modifying user roles" on page61).
- add/remove user roles (see "Adding user roles" on page61, "Deleting user roles" on page61).
- configure permissions for user roles.
- view the permissions assigned to the user role.



You can refer to "Role Model" matrix in RFC 3805 for adjusting this role function according to your site (see "Role reference" on page74).

Adding user roles


1. Click **Settings**.
2. In the left pane select **System > User Role Management**.
3. Click the  button in the **User Role List**.

The **Add Role** window appears.

4. Enter the role name and assign permissions for the role.
5. Click **Add**.

You can see the role in the list. You also can see the number of permissions in the list.

Deleting user roles

1. Click **Settings**.
2. In the left pane select **System > User Role Management**.
3. Select the role(s) you want to remove.
4. Click the  button in the **User Role List**.



Please make sure that the **Admin** role cannot be deleted.

Modifying user roles

1. Click **Settings**.
2. In the left pane select **System > User Role Management**.
3. Select the user account you want to modify.

4. Click the  button in the **User Role List**.

The **Modify Role** window appears.

5. Check or uncheck the permissions you want.
6. You can see the configured permissions within the window. Change permissions and click **OK**.



Please make sure that the **Admin** role cannot be modified. It has all the permissions and if any account has this **Admin** role, it has all the ability to do anything within SyncThru™ 6.

Large Paper Settings

Large Paper Settings allows you to determine which paper sizes are considered large and which are considered small for accounting purposes. To set the page settings, follow these steps:


1. Click **Settings**.
2. In the left pane select **System > Large Paper Settings**.
3. Set the paper ratio.
4. Click the arrows in the middle to move selected paper sizes from one side to the other in the **Large Paper Selection**.

COMPONENT	DESCRIPTION
Large paper ratio over small paper	The ratio determines how many large-sized paper pages will be counted per every one small-sized paper type for accounting and reporting purposes. For example, if the ratio is set to 2 and Ledger-size paper is in the large paper size side, every sheet of Ledger printed will count as 2 pages printed on reports and for accounting.
Large paper selection	Click the arrows in the middle to move selected paper sizes from one side to the other.
Apply	Click to save changes.

SyncThru Discovery

You may want to monitor who is managing the devices with SyncThru™ 6 or SyncThru™ 5. From SyncThru™ 6, click the **Settings** menu, then in the left pane, select **System** > **SyncThru Discovery**.

You can see all the SyncThru™ 6 URLs running on the network.

 SLP protocol is used for **SyncThru Discovery**.

Viewing SyncThru™ 6 Servers

You can open the specified SyncThru™ 6 server for checking discovery details.

From SyncThru™ 6, click the **Settings** menu, then in the left pane, select **System** > **SyncThru Discovery**. Click the **Go to SyncThru** button in the **Link** column for SyncThru™ 6.

Viewing SyncThru™ 5 Servers

You can open the specified SyncThru™ 5 server for checking discovery details.

From SyncThru™ 6, click the **Settings** menu, then in the left pane, select **System** > **SyncThru Discovery**. Click the **Go to SyncThru** button in the **Link** column for SyncThru™ 5.

File Management

Determines the maximum size of the repositories where files are stored and the maximum file size allowed for stored files.

 This applies to the firmware, driver, font/form/macro, device, PC agent, and plug-in file repositories.

COMPONENT	DESCRIPTION
Max repository size(MB)	The maximum size (in megabytes) of the file repository. The value can be between 10 and 10000.
Max file size(MB)	The maximum size allowed (in megabytes) for a file stored in the repository.
Apply	Click to save changes.

Data Management


Determines how reports and historical information will be saved on the server.

COMPONENT	DESCRIPTION
Report Cleanup Method	Options for when the system will delete reports. <ul style="list-style-type: none">• Disabled: Automatic deletion is disabled.• Automatic: Reports will be deleted automatically after they have been stored for the specified period in Data retention period.• Manual: Reports will be deleted on the date selected by the user.
Historical Data Cleanup Method	Options for when the system will delete saved data other than reports. <ul style="list-style-type: none">• Disabled: Automatic deletion is disabled.• Automatic: Reports will be deleted automatically after they have been stored for the specified period in Data retention period.• Manual: Reports will be deleted on the date selected by the user.
Device Group Data Management	Click Clean to remove groups that do not contain any devices.
Apply	Click to save changes.

Notification

Twitter Notification

Twitter Notification is also one of the proactive features of SyncThru™ 6. If you are responsible for managing devices, like replacing toner, you do not have to check SyncThru™ 6 or each device when using this feature. You can receive Twitter notification messages for events that occur on networked printing and imaging devices.

 There is a limit of 250 direct messages and 1000 tweets per day (about 128 tweets/30 minutes). For more information, see <https://support.twitter.com/articles/15364-about-twitter-limits-update-api-dm-and-following>

Even if an account has been blocked due to exceeding this tweet limitation, another account can be used: simply login from the **Twitter Notification** view with another account. To check if an account is blocked, follow these steps:

1. Click **Settings**.
2. In the left pane select **Log** > **Event Log**.
3. Search for or locate **Twitter Notification** in the **Category** column.

4. Check if the **Description** of the event starts with "E0501P5014" - this is the message send fail code. If this is the error code, then the account is currently blocked.

With Twitter Notification, you can

- view Twitter templates,
- register a Twitter template,
- modify a Twitter template, and
- un-register a Twitter template.

Viewing Twitter Notification Templates

Details can be viewed by double-clicking a template:

1. Click **Settings**.
2. In the left pane select **Notification > Twitter**.
3. Double-click a row in the template list.
The **Followers List** will drop down if the template is set up for direct messaging.
4. Double-click a row to close the information.

Registering a Twitter Notification Template

You may want to check if there is an alert on any device without opening SyncThru™ 6 or leaving your desk. SyncThru™ 6 can inform you if the devices have Twitter notifications set up.

1. Click **Settings**.
2. In the left pane select **Notification > Twitter**.
3. Click  in the **Twitter Notification Template List** panel.




If authentication is not completed, see Twitter Authentication.

4. Enter the template name.
5. Select the Twitter settings. If **Direct message** is selected, follow the sub-steps below.
 - a. Click **Select Follower**.
 - b. Select followers and move the followers to the right-side list.
 - c. Click **OK**.
6. Click **Add**.


Modifying a Twitter Notification Template

To modify a Twitter notification template, follow these steps:

1. Click **Settings**.
2. In the left pane select **Notification > Twitter**.
3. Select the template to modify.
4. Click .
5. Change the template name if necessary.
6. Update the Twitter settings. If **Direct message** is selected, follow the sub-steps below.
 - a. Click **Select Follower**.
 - b. Select followers and move the followers to the right-side list.
 - c. Click **OK**.
7. Click **Save**.

Un-registering a Twitter Notification Template

To remove an alert notification if the specified alert notification is no longer needed, follow these steps:

1. Click **Settings**.
2. In the left pane select **Notification > Twitter**.
3. Select the template to remove.
4. Click .



If the template has a blue dot icon in the template list, the template is used by a **Rule** and is protected from deletion.

Twitter Authentication

Signing Up and Registering in Twitter

Before using Twitter notifications, user has to create an account and register SyncThru™ Admin 6 as an application. For more details please see the following URLs:

- Create an account: <http://support.twitter.com>
- Register an application: <http://dev.twitter.com/apps/new>



Web Site: IP address with the port number where SyncThru Admin 6 has been installed.


Application Type > Access: select read and write

The screenshot shows the Twitter Developers 'Application Details' and 'Application Type' forms. The 'Application Details' section includes fields for Name, Description, and WebSite, each with a 'Notification Unit' label. The 'Application Type' section includes a radio button for 'Read and Write' and a 'Callback URL' field. The 'Access' section is also visible, showing 'Read and Write' selected.

After completing the two steps above, users can get the consumer key and secret from Twitter.

Twitter Authentication

Before getting Twitter notifications, users have to get authentication first. Follow these steps to get authentication:

1. Click **Settings**.
2. In the left pane select **Notification > Twitter**.
3. Click  in the **Twitter Notification Template List** panel.
4. Enter the **Consumer key** and **Consumer secret**.
5. Click **Confirm** to get authentication.



Make sure the authorizing account is the same as the application owner's account.

A pop-up window will open with a pin code.

6. Enter the code in the **Pin code** field and click **Confirm**.

Access token / Access token secret will be saved from SyncThru automatically.

After completing authentication, new templates can be created.



To update the **Consumer key** and **Consumer secret**, click **Edit** and update the **Consumer key** and **Consumer secret**, then repeat steps 4 and 5.

Usage in Rule

Twitter notification is used as an **Action** in **Rule Management**.

1. In the **Rule** wizard's step 2 screen, select **send Twitter message** and click the down arrow button.
2. Click message text
3. Set the properties' text length like {DeviceIpAddress:10} and include customized messages if necessary (total message length should not be longer than 120 characters).
4. Select one template to specify how the message will be sent.
5. Click **OK**.

According to the event and the conditions, the message will be sent.

SMTP

You can configure the **SMTP** server for the SMTP-related features, such as device discovering with SMTP or using SMTP user accounts.

Adding the SMTP Server

1. Click **Settings**.
2. In the left pane select **Notification > SMTP**.

COMPONENT	DESCRIPTION
SMTP server	The SMTP server's IP address.
SMTP port	The server's port number.
SMTP requires authentication	Check this item to use a login system to access to the SMTP server.
Email address from	Enter the email address to get reply mail from users.
SMTP SSL enable	Enable SSL (Secure Socket Layers) to ensure secure data transfer over the Internet.

3. Enter the server's information.
4. Test the connection by entering a recipient email address in the **Email address to:** field and click **Send Test**.
5. Click **Apply**.

Tasks

Scheduled Tasks

Scheduled Tasks allows you to view all scheduled tasks in this page as either a list or a calendar. Clicking on the **List** or **Calendar** button located at the top of the pane will toggle the views between list view and calendar view.

List View

The list view will display the tasks in a list.

COMPONENT	DESCRIPTION
Type	The source of the tasks.
Name	The name of the task.
Schedule	The schedule name is the same as the history name of the device's function.
Next Execution Time	The time at which the task will be executed again.
User	The ID of the user that created the task.

Calendar View

The calendar will display a large calendar with a red triangle on dates with tasks. Mousing over these dates will open a bubble with task names.

Completed Tasks

Completed Tasks allows you to view all completed tasks in this page as either a list or a calendar. Clicking on the **List** or **Calendar** button located at the top of the pane will toggle the views between list view and calendar view.

List View

The list view will display the tasks in a list.

COMPONENT	DESCRIPTION
Type	The type of task performed.
Name	The name of the task.
Schedule	The schedule name is the same as the history name of the device's function.
Start Time	The date and time at which the task started.
End Time	The date and time at which the task ended.
User	The ID of the user that created the task.

Calendar View

The calendar will display a large calendar with a red triangle on dates with tasks. Holding the mouse over these dates will open a bubble with task names.

Device

The following are the items that can be configured in the **Device** settings menu.


Alert List

You can see the alerts notification in the **Alert List** panel.

COMPONENT	DESCRIPTION
All categories	List of user-created categories.
Alert Name	The configured name of the alert notification.
Severity	Displays the severity level of the alert.
Toner Level	Displays the toner level percentage required to activate the alert.
Recovery Time	The recovery time of the alerts.

Adding an Alert Category

Adding a category allows users to few specific sets of alerts. For example, you can create a category for tray alerts and add alerts that are related to tray or paper errors. To add an alert category, follow these steps:

1. Click **Settings**.
2. In the left pane select **Device > Alert List**.
3. Click the **Alert Category** button.
The **Alert Category Setup** window appears.
4. Click the  button.
5. Enter the **Category name**.
6. Select the category in the left side.
7. Move the alert items from the right-side list.
8. Click **OK**.

Changing Alert Information

Severity Level and **Toner Level** information for alerts can be changed here as well. To change alert information, follow these steps:

1. Click **Settings**.
2. In the left pane select **Device > Alert List**.
3. Find the alert to change.
4. Change the **Severity Level** or **Toner Level** in the respective columns by selecting the option from the pull-down menu or changing the toner level percentage.
5. Click **Apply**.

Passive Device Discovery

SyncThru™ 6 can be set up to discovery devices passively without intervention from users.

Passive discovery literally means that SyncThru™ 6 works passively. That is, devices send packets first and SyncThru™ 6 detects the packets. Passive discovery is quiet because SyncThru™ 6 does not start sending any packet first. SyncThru™ 6 does not propagate any network traffic unless a device announces itself. There are two types of passive discoveries.

From SyncThru™ 6, click the **Settings** menu, then in the left pane, select **Device > Passive Device Discovery**.

- **Enable mDNS discovery:** If you enable mDNS discovery, SyncThru™ 6 starts listening for UDP traffic via port 5353. Devices announce packets continuously and SyncThru™ 6 detects them. With this method, you can discovery all mDNS compatible devices.
- **Enable SLP discovery:** If you enable SLP discovery, SyncThru™ 6 starts listening for UDP traffic via port 427. When devices are powered on, they announce packets and SyncThru™ 6 detects. Only Samsung devices will be discovered. (SLP multicast address is 239.255.255.253.)

The following information is provided about the discovered devices:

COMPONENT	DESCRIPTION
Status	The device's status when discovered.
Result Description	The detailed description for the status. For example the status Success can have Device Already Exists or new device details.
Algorithms	The common view for discovery results.
Discovered Time	The time at which the device was discovered.
Host Name	The host name of the device.
IP Address	The IP address of the device.
Serial No.	The serial number of the device.
MAC Address	The MAC address of the device.
Model Name	The model of the device.

Connection

You can configure various connection settings for communication between SyncThru™ 6 and devices. To change these settings, click the **Settings** menu, then in the left pane, select **Device > Connection**.

COMPONENT	DESCRIPTION
SNMP settings	<ul style="list-style-type: none">• SNMP timeout: The time the connection will remain idle (in milliseconds) before disconnecting.• SNMP retry count: The number of retries when SNMP communication fails.
SNMP v1/v2 settings	<ul style="list-style-type: none">• SNMP Read Community: The default read community name SyncThru™ 6 uses. When discovering a device, if the read community name value is different from the one here, SyncThru™ 6 cannot bring device information nor update other information. Usually public is set as a default name for read community name and so is SyncThru™ 6. Custom communities can be specified in Connection Settings (see "Connection Settings" on page20).• SNMP Write Community: The default write community name SyncThru™ 6 uses. When configuring a device, if the write community name value is different from the one here, configuration will not work properly.
SNMP v3 settings	<p>SNMPv3 provides higher security than previous versions of SNMP. If your devices enable only SNMPv3 and SyncThru™ 6 has no settings for SNMPv3, communication between devices and SyncThru™ 6 will always fail. If your devices are using SNMPv3, you need to configure the following options to be the same as what the devices have.</p> <ul style="list-style-type: none">• Context name: A collection of management information accessible by an SNMP entity.• User name: The user name used to access the SNMP server.• Security mode: Options for this are None, Auth or Auth and Privacy. Selecting Auth specifies that only user authentication is performed; Auth and Privacy specifies that user authentication and user privacy are being performed.• Authentication protocol: Select what algorithm is used during user authentication. Options for this are HMAC-MD5 or HMAC-SHA.• Authentication password: The authentication key used for HMAC.• Privacy protocol: Select what type of encryption to use for the Privacy Key: AES or DES. This is active only if Auth and Privacy is selected for Security mode.• Privacy password: The string used to encrypt the privacy key in the privacy algorithm.
Embedded web server settings	<ul style="list-style-type: none">• EWS Login ID: Enter the EWS login ID.• EWS Login Password: Enter the EWS login password.• EWS port: Enter the EWS port number.
Local device settings	<ul style="list-style-type: none">• Windows account login: Enter the Windows account login ID.• Windows account password: Enter the Windows account login password.


Device Data Collection

Data Collection Schedules


You can configure the schedule to collect status data from all devices registered with SyncThru™ 6.

Adding a Schedule

To add a new data collection schedule, follow these steps:


1. Click **Settings**.
2. In the left pane select **Device > Device Data Collection**.
3. Click the  button in the **Data Collection Schedules** section.
The **Add Schedule** window opens.
4. Enter a name and select the time interval for how often the schedule will run.
5. Click **Configure List of Properties**.
6. Move the properties you want to collect from the left side to the right side.
7. Click **OK**.
8. Click **Add**.

Deleting a Schedule

1. Click **Settings**.
2. In the left pane select **Device > Device Data Collection**.
3. Select the schedule to be removed.
4. Click the  button in the **Data Collection Schedules** section.

Confirm the deletion.

Modifying a Schedule

1. Click **Settings**.
2. In the left pane select **Device > Device Data Collection**.
3. Select the schedule you want to modify.
4. Click the  button.
The editing window opens.
5. Change the properties and click **Modify schedule**.

Starting a Data Collection Task

1. Click **Settings**.
2. In the left pane select **Device > Device Data Collection**.
3. Select a schedule to start.
4. Click **Start Instance Now**.
5. Click **Yes**.

Data Collection History

You can view data collection tasks that have been completed.

Viewing a Task

1. Click **Settings**.
2. In the left pane select **Device > Device Data Collection**.
3. Select a task from the **Data Collection History** section.
4. Click **List of Properties**.
The **List of Properties** window opens with the information collected by the data collection task.
5. Click **Close**.

Deleting a Schedule

1. Click **Settings**.
2. In the left pane select **Device > Device Data Collection**.
3. Select the schedule(s) you want to remove in the **Data Collection History**.
4. Click **Delete**.
Confirm the deletion.

Blocked Devices

You can block devices you do not need to manage via SyncThru™ 6. Devices are added to **Blocked devices** list when you delete the device from the **Devices List** with the **Delete devices from the system and block** option. Blocked devices are not added to the **Devices List** when SyncThru™ 6 discovers devices. To see the blocked devices list, click the **Settings** menu, then in the left pane, select **Device > Blocked devices**. If you want to manage the devices which have been blocked, delete the devices from the **Block Devices**. SyncThru™ 6 will then find the devices again and add them to the **Devices List**.




Blocked devices will be grayed out in the **Found Device List** (see "Viewing Discovery Results" on page30).


Device Supply Levels


Device Supply Levels is used to configure when alerts will be sent for supplies.

Adding a New Setting

To add a new **Device Supply Levels** setting, follow these steps:

1. Click **Settings**.
2. In the left pane select **Device > Device Supply Levels**.
3. Click the  button.
The **Device Setup** window opens.


COMPONENT	DESCRIPTION
Toner Level Settings	<ul style="list-style-type: none">• No Toner: The percentage remaining at which a no toner error will be displayed.• Low Toner: The percentage remaining at which a low toner warning will be displayed.• Low Toner Early Warning: The percentage remaining at which an early warning will be displayed.
Device Groups Dynamic Groups	Groups from which to select devices.
	Click on this to add a new device to the list.

COMPONENT	DESCRIPTION
	Click on this to remove a device from the system. This button is only active once a device is selected in the list.
Connection Settings	See "Connection Settings" on page20. This button is only active once a device is selected in the list.
Filter	Filters the devices in the list by the selected criteria.

4. Set the **Toner Level Settings** and select the devices.
5. Click **OK**.

Deleting a Setting

To delete a **Device Supply Levels** setting, follow these steps:


1. Click **Settings**.
2. In the left pane select **Device > Device Supply Levels**.
3. Select the setting(s) from the list.
4. Click the  button.
Confirm the deletion.

Group Supply Levels

Group Supply Levels is used to configure when alerts will be sent for supplies by model group.

Adding a New Setting

To add a new **Group Supply Levels** setting, follow these steps:

1. Click **Settings**.
2. In the left pane select **Device > Group Supply Levels**.
3. Click the  button.


The **Model Group Setup** window opens.

COMPONENT	DESCRIPTION
Toner Level Settings	<ul style="list-style-type: none"> • No Toner: The percentage remaining at which a no toner error will be displayed. • Low Toner: The percentage remaining at which a low toner warning will be displayed. • Low Toner Early Warning: The percentage remaining at which an early warning will be displayed.
Select Device Model Group Settings	Model groups for which settings can be configured. This is only available for Samsung devices.

4. Set the **Toner Level Settings** and select the model groups.
5. Click **OK**.

Deleting a Setting

To delete a **Group Supply Levels** setting, follow these steps:

1. Click **Settings**.
2. In the left pane select **Device > Group Supply Levels**.
3. Select the setting(s) from the list.
4. Click the  button and confirm the deletion.

Accounting

Accounting Settings

Job Accounting allows you to manage job accounts for SyncThru™ 6 itself.

COMPONENT	DESCRIPTION
Default access code	When you enable Job Accounting for devices, SyncThru™ 6 uses this value as an access code unless you enter a custom access code. You can change the default access code here. SyncThru™ will use Default access code as a default.

COMPONENT	DESCRIPTION
Reset usage interval	If you enable the Job Accounting feature, you need to reset the usage account periodically. For example, if your company allows employees to print 100 pages each month, you can set this option to every month. If you want to check the usage quarterly and charge bills, set this option to the end of every 3 months.
Job records collection interval	SyncThru™ gathers all of the job records from the devices periodically. This is for the interval for collecting data from the devices. You can change this interval for your own purposes.
Send email notification to user about remaining usage limit	If you check this option and set the remaining usage (percentage), SyncThru™ sends an email when the remaining usage (percentage) value is reached. A user who has received this email can ask the administrator to increase his/her allowed page count.
Notification interval	The time interval for sending notification emails.
Send email to following also	When sending a notification email you can also send it to other people, like the device manager, for reference.

Backup & Restore

This chapter provides instructions for backing-up and restoring SyncThru™ 6 databases and settings.

Getting Started

Backing up the SyncThru™ 6 databases is an important step in ensuring your information is safe in the case of an unforeseeable event. The backed-up databases can be restored from the back-up files and make sure that everything is kept running smoothly without disruption.

Constraints

The following are the current limitations involved with creating back-up files:

- Only PostgreSQL or Microsoft SQL are supported.
- Only entire databases can be backed-up and restored.
- Backing-up and restoration can only be performed for the same database type: you can't restore a PostgreSQL database with a Microsoft SQL backup file.
- Only SyncThru™ 6 databases can be backed-up and restored.

Pre-Requisites

Perform one of the following procedures before attempting to back up the SyncThru™ 6 database:

1. Install SyncThru™ 6.
2. Make sure the database has data to back up (i.e., perform some operations in SyncThru™ 6).
3. Stop SyncThru™ 6 (see "Stopping SyncThru™ 6" on page 9) and make sure no other application is using the database.
4. The backup/restore application will be installed under **<SyncThru6 Installation Folder>\Tools\BackupRestore**.
5. Install Java 5 or Java 6 and set the JAVA_HOME environment variable to point to the installed Java location (usually **<SyncThru6 Installation Folder>\Tools\jre1.6.0_30**).

or

1. Install SyncThru™ 6.
2. Edit the files backup.bat and restore.bat by replacing all occurrences of %java_home% with the Java install location with SyncThru™ 6 (usually **<SyncThru6 Installation Folder>\Tools\jre1.6.0_30**).

Backup

To back-up the SyncThru™ 6 solutions database, follow these steps:

1. Edit the file backup.properties and set the database connection settings for the database to be backed up.



Connection settings can be taken from the db.properties file stored under **<SyncThru6 Installation Folder>\UniThruTarget Platform**.

2. Edit the configuration_files.properties file and add any solution files that need to be backed-up.



The file paths must be relative to the solutions root installation folder.

3. Execute backup.bat.
4. Enter the path to the solution's installation root folder (e.g, **C:\Program Files\Samsung Network Printer Utilities\SyncThru Admin 6**).
5. If the backup is successful, messages similar to the following will be displayed:
 - Location of Database backup folder: .../BackupRestore/backup/data/
 - Location of Configuration backup folder: .../BackupRestore/backup/config/
 - Location of backup file: .../BackupRestore/backup_....bk
6. Delete any new files created in the folders except for the new .bk file.
7. Check that the .bk file, which is a .zip file, contains two folders: config and data.
The "config" folder contains files from the solution platform directory, and the "data folder" contains two xml files: db.schema-<db-server>.xml and db.data-<db-server>.xml.


Restore

To restore the SyncThru™ 6 solutions database, follow these steps:

1. Use the database client to delete and recreate the solution database.
2. Edit the restore.properties file and set the database connection settings for the database to be restored.



Connection settings can be taken from the db.properties file stored under **<SyncThru6 Installation Folder>\UniThruTarget Platform**.

3. Execute restore.bat.
4. Enter the path to the solution's installation root folder (e.g, **C:\Program Files\Samsung Network Printer Utilities\SyncThru Admin 6**).
5. Provide the backup file's file name obtained from the backup procedure.
 The file must be in the same directory as restore.bat.
6. After restoration is complete, two messages should be displayed: "Database Restore Completed!" and "Configuration Files Restore Completed!"
7. Verify that the database data has been correctly restored.
8. Verify that the contents of the restore file are okay.
9. Start SyncThru™ 6 with the restored database.

Data reference

This chapter includes:

- MIB reference
- Data matrix
- Role reference

MIB reference

Generic support

SyncThru™ 6 uses SNMP queries to gather information from printers. How much information is displayed and what functionality is provided depends on the printer's own ability to respond to SNMP queries.

SyncThru™ 6 supported devices

Any printing and imaging device directly connected to the network that supports SNMP and the standard printer MIB (RFC 1759) is supported.

Network SNMP Printers and MFPs should support the following Request for Comments (RFC) standards:

- RFC 1213 (MIB-II for TCP/IP)
- RFC 1759 (Printer MIB v1)
- RFC 3805 (Printer MIB v2)
- RFC 3806 (Printer Finishing MIB)
- RFC 1514 / RFC 2790 (Host Resources MIB v1, v2)

Samsung private MIB

For Samsung devices, SyncThru™ 6 provides much more information and functionality.

- Samsung Host Resources MIB
- Samsung Service Monitor MIB
- Samsung Diagnostics MIB
- Samsung File Storage MIB
- Samsung General MIB

Data matrix

Data vs. Information

SyncThru™ 6 collects raw data from devices such as device status and generates useful information based on the collected data. You can see the data categories SyncThru™ 6 manages in the table below.

	DATA	INFORMATION
	Raw data from devices	<ul style="list-style-type: none">• Usually for Analysis & Reports or Dashboard• Generation based on raw data
Device	<ul style="list-style-type: none">• Properties such as model name: You can see this data in the Device Management menu.• Files: You can see the file repository for managing firmware or font/macro/form files.• Alerts	You can see various reports in the Report menu, including proactive analysis. Additionally, Dashboard provides useful statistics for you to monitor devices efficiently. Most of all, you can get alert notifications without accessing SyncThru™ 6. These features help you manage devices without leaving your desk.
User	<ul style="list-style-type: none">• User accounts and roles• Usage and permissions if Job Accounting is installed.	SyncThru™ 6 provides customized UI for users. If Job Accounting is installed - various reports will be provided using raw data.
SyncThru™ 6 itself	<ul style="list-style-type: none">• Server configuration settings• Help• Log and history• Active tasks	

Collecting data from devices

Data collection from devices is one of the most important jobs SyncThru™ 6 performs since the primary usage of SyncThru™ 6 is to manage devices. Devices have hundreds of properties and you cannot get all the properties in real time; therefore, SyncThru™ 6 categorizes the properties as follows:

CATEGORY	DESCRIPTION	PROPERTIES	KEEP IN DB	UPDATE DB	DEFAULT UPDATE INTERVAL
Identity	<ul style="list-style-type: none">To use for identifying devicesNo change over time after initialization	<ul style="list-style-type: none">Hardware addressSerial number	Yes	No	N/A
Properties. 1	<ul style="list-style-type: none">To collect often for monitoring device statusChanges are always there over time	<ul style="list-style-type: none">Device status	Yes	Yes	10 minutes
Properties. 2	<ul style="list-style-type: none">To collect periodicallyChanges are expected over time (not more frequently than Properties.1)	<ul style="list-style-type: none">Alerts (Troubles)ConsumablesUsage countersTotal page countColor page countMono page count	Yes	Yes	1 hour
Properties. 3	<ul style="list-style-type: none">To collect periodicallyChanges happen seldomly	<ul style="list-style-type: none">LocationModel nameHost nameStorage filesTray information and other properties	Yes	Yes	24 hours

Role reference

The following tables are based on RFC3805:

Role assignment help

The following table helps you to assign roles to users:

REQUIRED AREA	DESCRIPTION	SYNCTHRU™ 6 FEATURE	USER ROLE
Notification of events	Receive notification of the existence of a defined printer event. An event can be of many types, including warnings, errors, job stage completion, and etc.	Click Settings menu > Device > Alert List .	<ul style="list-style-type: none">OperatorTechnician
Printer configuration	Query the current configuration of a printer	To see the Configuration window, select Device > Device Management > Select the devices for which to change settings > Device Configuration tab.	<ul style="list-style-type: none">System managerInstaller
Printer consumables	Determine the current state of any and all consumables within a printer	<ul style="list-style-type: none">Click the Dashboard menuClick Device > Device Management.	<ul style="list-style-type: none">OperatorCapacity plannerAccountant
Internal printer status	Determine the current status of the printer	<ul style="list-style-type: none">Click the Dashboard menuClick the Devices menu > Device Management.	<ul style="list-style-type: none">OperatorTechnicianSystem Manager

What does the....do?

The following table explains each role:

ROLE	DESCRIPTION
User (USER)	A person or application that submits print jobs to the printer: typically viewed as the "end user" within the overall printing environment.
Operator (OP)	A person responsible for maintaining a device on a day-to-day basis, including such tasks as filling empty media trays, emptying full output trays, replacing toner cartridges, clearing simple paper jams, etc.
Technician (TECH)	A person responsible for repairing a malfunctioning device, performing routine preventive maintenance, and other tasks that typically require advanced training on the printer internals. An example of a "technician" would be a manufacturer's Field Service representative or other person formally trained by the manufacturer or similar representative.
System Manager (MGR)	A person responsible for configuration and troubleshooting of components involved in the overall printing environment, including printers, print queues and network connectivity issues. This person is typically responsible for ensuring the overall operational integrity of the device system components, and is typically viewed as the central point of coordination among all other roles.
Help Desk (HELP)	A person responsible for supporting users in their printing needs, including training users and troubleshooting users' printing problems.
Asset Manager (AM)	A person responsible for managing an organization's printing system assets (primarily printers). Such a person needs to be able to identify and track the location of printing assets on an ongoing basis.
Capacity Planner (CP)	A person responsible for tracking the usage of printing resources on an ongoing basis for the purpose of planning printer acquisitions and/or placement of printers based on usage trends.
Installer (INST)	A person or application responsible for installing or configuring printing system components on a local system.
Accountant (ACCT)	A person responsible for tracking the usage of printing resources on an ongoing basis for the purpose of charging Users for resources used.

Troubleshooting

This chapter gives helpful information for what to do if you face an error.

Common errors

Cannot access SyncThru™ 6 from a browser

User actions

- Make sure that the URL and port number you type in the web browser are correct.
- Check if your browser is supported by SyncThru™ 6.
- Ask your administrator.

Administrator actions

- Check if SyncThru™ 6 is running. If the server is not running, you need to restart the service. If the service is running, restart the system.
- Check if you can access SyncThru™ 6 from your host machine, where SyncThru™ 6 is installed. If you can access SyncThru™ 6 from the host machine, but cannot access it from any remote machine, you may have a network issue that is preventing communication between the browser and the SyncThru™ 6 host machine.
- Ask your network administrator. You need to check your network policy, especially security issues.
- Check the security settings, like the firewall, of the remote machine. If the port number of SyncThru™ 6's service is blocked by your network manager or firewall, you may have this problem.
- If you have unchecked the firewall configuration at the installation time, you may face this problem. Check the firewall settings. By default, SyncThru™ 6 will configure the firewall exceptions automatically unless you change the setting.

Cannot upload files to SyncThru™ 6

Using Internet Explorer

If you are using Internet Explorer as a client and SyncThru™ 6 is HTTPS enabled, you may face issues while uploading files to the SyncThru™ 6 server. To resolve this issue, follow these steps:

1. Go to Internet Explorer menu > **Tools**.
2. Click **Internet Options** then select the **Advanced** tab.
3. In the **Settings** section, uncheck the "Use TLS 1.0" checkbox under **Security**.
4. Click **OK** to save the settings.

Using Firefox, Chrome, or Safari

If you are using Firefox, Chrome, or Safari as a client, uploading files to the SyncThru™ 6 server is not supported.

Cannot open context sensitive help in SyncThru™ 6

If you are using Safari as a client and SyncThru™ 6 is HTTPS enabled, you may face issues in opening context sensitive help in SyncThru™ 6. To resolve this issue, do one of the following:


1. Click the **Settings** icon in the browser's toolbar.
2. Uncheck **Block pop-up windows**.

or

1. In the **Edit** menu, uncheck **Block pop-up windows**.

Cannot find some network-connected devices

Administrator actions

- Make sure that the specified devices are turned on.
- From the Windows **Start** menu, select **Run** and type in **cmd**. A window appears. Then, type in **ping** and the specified IP address to confirm network connectivity.
- The devices might have a network communication problem. Check the network configuration of the specified devices, such as a protocol status.
- Check SNMP community names. Verify that SNMP GET community names contain **public**.
- If you know the IP addresses of the devices that you want to find, you can add the devices using the  button located in the **Device List**.
- If you used **Broadcast** discovery method,
 - Run the discovery when there is less network traffic. If your network is busy, SyncThru™ 6 might not discover some devices.
 - Try another discovery method, **IP Range** or **CSV Import** method. If some devices are not on the same subnet, **Broadcast** discovery might not find them.
- If you used **SLP** discovery method,

- Make sure that the devices support multicast broadcasts. If the devices do not, try another discovery method.
- Check whether the router is multicast-enabled or not. If the router is not enabled, the multicast packet does not go out of the router. You need to ask the network administrator to enable the multicast on the router.
- If you used **IP Range** discovery method,
 - Check if the **IP Range** for the discovery reflects the network that is being scanned. Your network monitoring system might consider the discovery as being an attack to your network. If so, contact and inform your network administrator when running this discovery.
 - If SyncThru™ 6 still cannot find the devices, the devices might have a network communication problem. Check the network configuration of the specified devices, such as a protocol status.

Unable to find locally connected devices

Device is connected to the remote computer in the local network. However, local device discovery cannot find the device.

Administrator actions

- Check if the local device account and local device password configured on the started discovery are correct. This account should have administrator privileges on the remote computer in order to perform discovery.
- If the operating system of the remote computer is Windows XP/Vista and non-domain configuration is used, check if guest user is not blocked on the remote computer. Also, the **Simple File Sharing** option in **Windows Explorer** should be cleared.
- WMI service uses DCOM to communicate with the remote computer. If you use a network firewall, it should be configured properly in order to allow DCOM connectivity. Refer to the user manual of your network firewall to configure it. If your system has Windows XP embedded firewall, check the Windows user manual.



You can see more information on the Microsoft web site (<http://www.microsoft.com>) for solutions to problems with DCOM and WMI.

Local device discovery fails


In the latest version of Windows, local device discovery fails if SyncThru™ 6 service is started under “Local System” user.

Administrator actions

- A possible solution is to start the SyncThru™ 6 service under an administrator account.
- This issue is still being resolved.

Incorrect device status appears

User & Administrator actions

- If your network is busy or has a high level of network traffic, SyncThru™ 6 might miss some packets.
- Make sure the device is turned on.
- Refresh the devices list by clicking the  button.
- If this still happens, ask your network administrator about your network communication status.

Device status for locally connected device is not displayed

SyncThru™ 6 found locally connected device, but the status is not displayed.

Administrator actions

Local device discovery shows additional information for Samsung devices if the special **WMI Provider** has been installed on the remote computer and the locally connected device should support Samsung's USB interface. This **WMI Provider** component is automatically installed on the remote computer during local device discovery. The **WMI Provider** supports devices which are connected using USB interface only. If the device can provide additional information, the status will be displayed.

- Check if your network firewall allows SyncThru™ 6 to access the network.
- If the operating system of the remote computer is Microsoft Windows 2003 Server, you might need to add the **MSI WMI Provider** component using **Add or Remove Programs** on the **Control Panel**. Use the **Add/Remove Windows Components** feature.

Uploading and updating firmware is taking too long

Administrator actions

- There might be a network communication problem in your site. Ask your network administrator first.
- There might be a file size issue. It can take a longer time when uploading/updating a large file.

When a device is selected in the File Storage menu, the files list (font/ macro/ form) is not displayed

- Make sure the following are correct:
 - Selected device is on the network.
How to check: From the Windows **Start** menu, select **Run** and type in **cmd**. Press enter then type in **ping** and the specified IP address to confirm network connectivity in the command window.
 - Selected device supports SyncThru™ 6 **File Storage** feature.
 - The device has at least one file. This problem can happen because the device doesn't have any files.
- If you still have trouble with this, contact the network administrator.

When uploading files into the specified devices, even though files are uploaded successfully, the result always says failed.

- Make sure the following settings are correct:
 - Check if there is any other SNMP trap server running on the computer where SyncThru™ 6 is installed. If so, that trap server may intercept traps via 162 port and SyncThru™ 6 cannot get any traps. Thus, the result is always failed as SyncThru™ 6 recognizes the connection time-out.
 - If SyncThru™ 6 is installed on the Windows XP with Service Pack 2, port 162 should be added in the **Exceptions**

list of **Windows Firewall** configuration in **Windows Security Center**. (If you have unchecked the firewall configuration during the installation, you need to check the firewall settings on the server.)

Configuration History always says "Failed"

- Make sure the following settings are correct:
 - Check if your devices supports Samsung Private MIBs. (All the items in **Configuration** have dependency with MIB information inside the device. Only **Location**, **Contact**, and **Host Name** are linked to public MIB, RFC1213. See "MIB reference" on page73)
 - Check if your devices have **SNMP Write Community** name correctly. SNMP settings should be required because this **Configuration** uses SNMP SET command.
 - Check if your devices' **SNMP Write Community** name is same as SyncThru™ 6's **SNMP Write Community** name. Otherwise, SNMP communication between your devices and SyncThru™ 6 always fails. (See "Connection" on page67 for details)

Cannot find devices using LDAP discovery

- Check the shared Windows printer port format, IP_<ip-addr> (case insensitive, e.g. IP_19.168.1.100), is the only supported printer port format in discovering devices. The LDAP discovery scans the shared Windows printers in **Active Directory** when it is used to find the network-connected devices. The LDAP discovery extracts IP address information from the printer port name of printer sharing. The port name is parsed and the IP address is used for communication. When a port name does not contain a valid IP address, the network device may not be discovered.

Cannot use some ports for HTTP/HTTPS configuration

- The following list of TCP ports are blocked by Flash Player. You may get an error if you try to use these ports for either HTTP or HTTPS configuration:

PORT	USAGE	PORT	USAGE	PORT	USAGE	PORT	USAGE
20	ftp data	42	name	113	auth	587	smtp
21	ftp control	43	nickname	115	sftp	601	syslog
1	tcpmux	53	domain	117	uucp-path	636	ldap+ssl
7	echo	77	priv-rjs	119	nntp	993	ldap+ssl
9	discard	79	finger	123	ntp	995	pop3+ssl
11	systat	87	ttylink	135	loc-srv/ epmap	2049	nfs
13	daytime	95	supdup	139	netbios	4045	lockd
15	netstat	101	hostriame	143	imap2	6000	x11
17	qotd	102	iso-tsap	179	bgp		
19	chargen	103	gppitnp	389	ldap		
22	ssh	104	acr-nema	465	smtp+ssl		
23	telnet	109	pop2	512	uucp		
25	smtp	110	pop3	556	remotefs		
37	time	111	sunrpc	563	nntp+ssl		

- For more information, please refer to the AS3 Developer Guide: http://help.adobe.com/en_US/as3/dev/as3_devguide.pdf

Frequently Asked Questions

This chapter gives answers to frequently asked questions.

FAQ

How do I access SyncThru Web Admin Service after installing?

From a web browser

Type in one of the following addresses.

- `http://server_name.domain:port_number`
- `http://ip_address:port_number`



- "server_name.domain" is the hostname of the SyncThru™ 6 host machine.
- "ip_address" is the IP address of the machine where SyncThru™ 6 is installed.
- "port_number" is the port number that you entered during the installation.

From the Start menu

From the **Start** menu, click **Program > Samsung Network Printer Utilities > SyncThru™ 6 > SyncThru™ 6**.

Is Window XP Service Pack 2 supported by SyncThru™ 6?

SyncThru Web Admin Service supports Windows XP Service Pack 2 if the firewall is disabled or if the following ports are enabled:

- **5432**: PostgreSQL port number if you use PostgreSQL
- **8080**: HTTP default port, or if you configure another port number for HTTP, the specified port number should be enabled
- **8081**: HTTPS default port, or if you configure another port number for HTTPS, the specified port number should be enabled
- **427**: SLP Multicast discovery port number
- **161**: SNMP communication port
- **162**: Traps listening port number
- **5353**: mDNS discovery port number

Where can I get the version information for SyncThru™ 6?

After SyncThru™ 6 is installed, open SyncThru™ 6 with a supported web browser.

Click **About** located in the top-right portion of the browser. Version information and database information are located here.

Is there any way to speed up device discovery time?

Basically, **Broadcast** and **SLP** are the discovery methods with the highest speed while **IP Range** and **CSV Import** work slowly. If you have a speed problem with discovering devices, check the discovery strategy recommended in the **Discovery** section (see "Device Discovery" on page29).

In addition, you can use another options for discovery: passive discovery settings.

From SyncThru™ 6, click the **Settings** menu > **Settings** > **Device Management** > **Discovery**.

Passive SLP discovery or passive mDNS discovery works faster without the network traffic issue.

For **IP Range**, refer to the followings:

- **IP Range** discovery checks every IP address. If the range includes many unused IP addresses, SyncThru™ 6 will check those addresses, which causes the discovery time problem. If you can ask your network administrator about the IP addressing schemes and network environments, or if you already know them, this discovery can be faster.
- You can configure the specific range of IP addresses according to your network environments.
- If you want to use multiple, distinct **IP Range** settings, you can schedule your own discoveries (See "Device Discovery" on page29).



SyncThru™ 6 recommends you to run discoveries during off-hours if possible. However, all the devices should be turned on in this case.

What is the purpose of group management?

Device groups make it easier to find the devices, check their statuses, and perform maintenance and other administrative operations. For example, if you create groups by your own physical location, you can monitor or manage them easily.



A single device can belong to an unlimited number of the groups.

Can I downgrade from current SyncThru™ 6 to a previous version with the same database?

Basically, downgrading is not supported by SyncThru™ 6 because we cannot expect any changes in the future, such as database schema, which means that a previous version you want to reinstall will not support updating database schema from current SyncThru™ 6 to previous version schema. Therefore, if you want to reinstall previous version of SyncThru™ 6, we recommend you create a new database table.

How do I contact the Samsung printer service for questions about SyncThru™ 6?

You can contact Samsung at their web site: <http://www.samsungprinter.com>.

There are so many postgres.exe tasks in task manager even though one database is running. Is this normal behavior?

This is normal behavior of PostgreSQL. PostgreSQL makes around 8 to 10 tasks in task manager for a PostgreSQL database.

How do I encrypt the database property file (db.properties) in SyncThru™ 6 using Encrypting File System (EFS) in Windows?

EFS is automatically used in Windows to encrypt your confidential data when it is stored on the hard disk. The administrator must understand the risks of key management (i.e., if the user forgets the password or fails to back up the encryption key, the encrypted file cannot be restored). It is advised to encrypt the *db.properties* file in SyncThru to protect the database information from misuse by users that could represent a risk to data security.

To encrypt you data by using EFS, follow these steps:



EFS is not available in Windows XP Home Edition.

1. Open Windows Explorer.
2. Right-click the file or folder to encrypt and select **Properties**.
3. Select the **General** tab.
4. Click the **Advanced** button.
5. Select **Encrypt contents to secure data**.
6. Click **OK**.
7. Click **OK**.

Creating a Recovery Agent

Users can create one of the following recovery key agents based on their work environment:

- **Domain-Based Recovery Agent**
Allows an account to read or recover data encrypted by using EFS, you must make the account a recovery agent.
- **Local Recovery Agent**
In a non-domain environment, such as on a standalone computer or in a workgroup, you can create a local recovery agent. Creating a local recovery agent might be helpful if the computer is shared by multiple users.

See <http://technet.microsoft.com/en-us/library/cc875821.aspx> for more information.

Security reference

This chapter explains features SyncThru™ 6 provides for security.

This chapter includes:

- SSL communication (HTTPS)
- User authentication
- SNMPv3
- User credentials

SSL communication (HTTPS)

SSL (RFC5246) stands for Secure Sockets Layer. It is cryptographic protocol that provides secure communication on the network. If you enable SSL, all the data from your browser to SyncThru™ 6 server is encrypted.

Related parts are as follows:

- From SyncThru™ 6, click **Settings** menu > **System** > **HTTP Security**.

User authentication

For controlling access to the SyncThru™ 6 server itself, an authentication feature is provided. If you enable authentication, only registered users can open SyncThru™ 6. SyncThru™ 6 requires a login ID and password.

Additionally, registered users have different roles, which include permissions for SyncThru™ 6 operations.

Related parts are as follows:

- From SyncThru™ 6, click **Settings** menu > **System** > **User Role Management**.
- From SyncThru™ 6, click **Settings** menu > **System** > **HTTP Security**.

SNMPv3

You can configure the security settings for the devices which support SNMPv3 security (RFC2571). These devices will not report any status information until you set up the security configuration. The SNMPv3 protocol encrypts the information being sent between SyncThru™ 6 and the devices.

Related parts are as follows:

- From SyncThru™ 6, click **Device** > **Device Management**. Select a device then click the **Connection Settings** button.
- From SyncThru™ 6, click **Settings** menu > **Device** > **Connection**.

User credentials

The embedded web servers of the Samsung devices support user credentials for security (You can see the setting in SWS, SyncThru Web Service: **Maintenance** > **Security**). If the security option is enabled, you need to configure user credentials for SyncThru™ 6 because some features of SyncThru™ 6 use HTTP protocol. That means only an Administrator of SWS can do the jobs from SyncThru™ 6 if device security is enabled.

Related parts are as follows:

- From SyncThru™ 6, **Device** > **Device Management**. Select a device then click the **Connection Settings** button.
- From SyncThru™ 6, click **Settings** menu > **Device** > **Connection**.

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Glossary



- The following glossary will help familiarize you with SyncThru™ 6 by understanding the terminologies commonly used in this admin guide.
- The definitions of the below terms are mostly cited from:
A) <http://en.wikipedia.org> and B) www.ietf.org/rfc.html.

Account

In SyncThru™ 6, having an account means you have the right to access the device or system.

Console

Console is the device's LCD display.

CSV

Comma Separated Values (CSV) is a type of file format. CSV is used to exchange data between disparate applications. The file format, as it is used in Microsoft Excel, has become a pseudo standard throughout the industry, even among non-Microsoft platforms.

DBMS

Database Management System

DNS server

Domain Name Server (DNS) is a system that stores information associated with domain names in a distributed database on networks, such as the Internet or an intranet.

SWS

Embedded Web Server is a web server embedded in the device. You can access it by typing in the IP address or the Host name on the address bar of a web browser.

Firewall

Firewall is an integrated collection of security measures designed to prevent unauthorized electronic access to a networked computer system. It is also a device or set of devices configured to permit, deny, encrypt, decrypt, or proxy all computer traffic between different security domains based upon a set of rules and other criteria.

FTP

File Transfer Protocol (FTP) is a commonly used protocol for exchanging files over any network that supports the TCP/IP protocol (such as the Internet or an intranet).

HTTP

Hypertext Transfer Protocol (HTTP) is a communications protocol. Its use for retrieving inter-linked text documents (hypertext) led to the establishment of the World Wide Web.

HTTPS

Hypertext Transfer Protocol over Secure Socket Layer or https is a URI scheme used to indicate a secure communication such as payment transactions and corporate information systems.

IP

Internet Protocol (IP) address is a unique number that devices use in order to identify and communicate with each other on a network utilizing the Internet Protocol standard.

IPv6

Internet Protocol version 6 (IPv6) is an Internet Layer protocol for packet-switched internet works. IPv4 is currently[update] the dominant Internet Protocol version, and was the first to receive widespread use. The Internet Engineering Task Force (IETF) has designated IPv6 as the successor to version 4 for general use on the Internet.

IPP

Internet Printing Protocol (IPP) defines a standard protocol for printing as well as managing print jobs, media size, resolution, and so forth. IPP can be used locally or over the Internet to hundreds of printers, and also supports access control, authentication, and encryption, making it a much more capable and secure printing solution than older ones.

LDAP

The Lightweight Directory Access Protocol (LDAP) is a networking protocol for querying and modifying directory services running over TCP/IP.

LPD

Line Printer Daemon protocol/Line Printer Remote protocol (or LPD, LPR) also known as the Berkeley printing system, is a set of programs that provide printer spooling and network print server functionality for Unix-like systems.

MAC

Media Access Control (MAC) data communication protocol sub-layer, also known as the Medium Access Control, is a sublayer of the Data Link Layer specified in the seven-layer OSI model (layer 2).

mDNS

Multicast DNS (mDNS) is a protocol that is used by Apple Inc. It uses similar APIs to the unicast DNS system but implemented differently.

MFP

Multi Function Printer/Peripheral (MFP) is an office machine that includes the following functionality in one physical body, so as to have a printer, a copier, a fax, a scanner and etc.

MIB

A management information base (MIB) stems from the OSI/ISO Network management model and is a type of database used to manage the devices in a communications network. It comprises a collection of objects in a (virtual) database used to manage entities (such as routers and switches) in a network.

OPC drum

Organic Photo Conductor (OPC) is a mechanism that makes a virtual image for print using a laser beam emitted from a laser printer, and it is usually green or gray colored and a cylinder shaped. An exposing unit of a drum is slowly worn away by its usage of the printer, and it should be replaced appropriately since it gets scratches from grits of a paper."

Primary Domain Controller (PDC)

The PDC is a server located on a Windows domain. The PDC controls access to the domain.

Plug-in

In SyncThru™ 6, plug-in is an additional feature that you can add to SyncThru™ 6.

POP3

Post Office Protocol version 3 (POP3) is an application-layer Internet standard protocol used by local email clients to retrieve email from a remote server over a TCP/IP connection.

PostgreSQL

PostgreSQL is an object-relational database management system (ORDBMS). It is released under a BSD-style license and is thus free software.

RFC

In computer network engineering, a Request for Comments (RFC) is a memorandum published by the Internet Engineering Task Force (IETF) describing methods, behaviors, research, or innovations applicable to the working of the Internet and Internet-connected systems.

RFC 3805

Printer MIB version 2. This document provides definitions of models and manageable objects for printing environments. The objects included in this MIB apply to physical, as well as logical entities within a printing device.

RSS

Really Simple Syndication (RSS 2.0) is a family of Web feed formats used to publish frequently updated works—such as blog entries, news headlines, audio, and video—in a standardized format. RSS feeds can be read using software called an "RSS reader", "feed reader", or "aggregator", which can be web-based or desktop-based. A standardized XML file format allows the information to be published once and viewed by many different programs. The user subscribes to a feed by entering the feed's URI (often referred to informally as a "URL", although technically, those two terms are not exactly synonymous) into the reader or by clicking an RSS icon in a browser that initiates the subscription process.

Site Manager

A site manager is a program running on a remote site that performs the operations related to that particular site, including device discovery and data collection.

SLP

Service Location Protocol (SLP, srvloc) is a service discovery protocol that allows computers and other devices to find services in a local area network without prior configuration. (RFC 2608)

SMB

Server Message Block (SMB) is a network protocol mainly applied to share files, printers, serial ports, and miscellaneous communications between nodes on a network. It also provides an authenticated Inter-process communication mechanism.

SMTP

Simple Mail Transfer Protocol (SMTP) is the standard for e-mail transmissions across the Internet. SMTP is a relatively simple, text-based protocol, where one or more recipients of a message are specified, and then the message text is transferred. It is a client-server protocol, where the client transmits an email message to the server.

SNMP

Simple Network Management Protocol (SNMP) is a component of the Internet Protocol Suite as defined by the Internet Engineering Task Force (IETF). SNMP is used in network management systems to monitor network-attached devices for conditions that warrant administrative attention. It consists of a set of standards for network management, including an Application Layer protocol, a database schema, and a set of data objects.

SSDP

SSDP is the basis of the discovery protocol of universal plug-and-play.

SSL

Transport Layer Security (TLS) Protocol and its predecessor, Secure Sockets Layer (SSL), are cryptographic protocols that provide security and data integrity for communications over TCP/IP networks such as the Internet.

SSO

Single sign-on (SSO) is a method of access control that enables a user to log in once and gain access to the resources of multiple software systems without being prompted to log in again.

SWS

SyncThru Web Service(SWS) is an embedded web server for Samsung devices.

TCP

Transmission Control Protocol (TCP) is one of the core protocols of the Internet Protocol Suite. TCP is so central that the entire suite is often referred to as "TCP/IP."

TCP/IP

The Transmission Control Protocol (TCP) and the Internet Protocol (IP); the set of communications protocols that implement the protocol stack on which the Internet and most commercial networks run.

Trap

Trap is used to report an alert or other asynchronous event about a managed subsystem. In SNMPv1, asynchronous event reports are called traps while they are called notifications in later versions of SNMP.

UDP

User Datagram Protocol (UDP) is one of the core members of the Internet Protocol Suite, the set of network protocols used for the Internet. With UDP, computer applications can send messages, sometimes known as datagrams, to other hosts on an Internet Protocol (IP) network without requiring prior communications to set up special transmission channels or data paths. UDP is sometimes called the Universal Datagram Protocol. UDP uses a simple transmission model without implicit hand-shaking dialogues for guaranteeing reliability, ordering, or data integrity. Thus, UDP provides an unreliable service and datagrams may arrive out of order, appear duplicated, or go missing without notice.

UPnP

Universal Plug and Play (UPnP) is a set of computer protocols promulgated by the UPnP Forum. The goals of UPnP are to allow devices to connect seamlessly and to simplify the implementation of networks in the home (data sharing, communications, and entertainment) and in corporate environments for simplified installation of computer components. UPnP achieves this by defining and publishing UPnP device control protocols built upon open, Internet-based communication standards.

WINS server

Windows Internet Name Service (WINS) is Microsoft's implementation of NetBIOS Name Service (NBNS), a name server and service for NetBIOS computer names. Effectively WINS is to NetBIOS names, what DNS is to domain names — a central mapping of host names to network addresses. Like DNS it is broken into two parts, a Server Service (that manages the encoded Jet Database, server to server replication, service requests, and conflicts) and a TCP/IP Client component which manages the client's registration, renewal of names and takes care of queries.

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