#### Machines with a display screen

#### **Connecting in PBC mode**

- 1 Press and hold the (WPS) button on the control panel for more than 2 seconds.
  - The machine starts waiting for up to two minutes until you press the WPS (PBC) button on the access point (or wireless router).
- Press the WPS (PBC) button on the access point (or wireless router).
  - The messages are displayed on the display screen in the order below:
  - **aConnecting:** The machine is connecting to the access point (or wireless router).
  - **bConnected:** When the machine is successfully connected to the wireless network, the WPS LED light stays on.
  - **cAP SSID:** After completing the wireless network connection process, the AP's SSID information appears on the display.
- Insert the supplied CD into the CD-ROM drive and proceed to install the software following the directions on the screen. When the "Connect Printer" screen appears, select the Network (Ethernet/Wireless) connection.

#### **Connecting in PIN mode**

- 1 Press and hold the (WPS) button on the control panel for more than 2 seconds.
- The eight-digit PIN appears on the display.
  - You need to enter the eight-digit PIN within two minutes on the computer that is connected to the access point (or wireless router).
  - The messages are displayed on the display screen in the order below:
  - **aConnecting:** The machine is connecting to the wireless network.
  - **bConnected:** When the machine is successfully connected to the wireless network, the WPS LED light stays on.
  - **cSSID Type:** After completing the wireless network connection process, the AP's SSID information is displayed on the LCD display.
- Insert the supplied CD into the CD-ROM drive and proceed to install the software following the directions on the screen. When the "Connect Printer" screen appears, select Network (Ethernet/Wireless) connection.

#### Machines without a display screen

#### **Connecting in PBC mode**

- Press and hold the (WPS) button on the control panel for about 2 4 seconds until the status LED blinks quickly.
  - The machine starts connecting to the wireless network. The LED blinks slowly for up to two minutes until you press the PBC button on the access point (or wireless router).
- Press the WPS (PBC) button on the access point (or wireless router).
  - **a**The light blinks fast on the WPS LED. The machine is connecting to the access point (or wireless router).
  - **b**When the machine is successfully connected to the wireless network, the WPS LED light stays on.
- Insert the supplied CD into the CD-ROM drive and proceed to install the software following the directions on the screen. When the "Connect Printer" screen appears, select the Network (Ethernet/Wireless) connection.

#### **Connecting in PIN mode**

- The network configuration report, including PIN, must be printed (see "Printing a network configuration report" on page 134).
  - In ready mode, press and hold the (S) (Cancel or Stop/Clear) button on the control panel for about 5 seconds. You can find your machine's PIN.
- Press and hold the (WPS) button on the control panel for more than 4 seconds until the status LED stays on.
  - The machine starts connecting to the access point (or wireless router).
- You need to enter the eight-digit PIN within two minutes on the computer that is connected to the access point (or wireless router).
  - The LED blinks slowly for up to two minutes until you enter the eight-digit PIN.
  - The WPS LED blinks in the order below:
  - **a**The light blinks fast on the WPS LED. The machine is connecting to the access point (or wireless router).
  - **b**When the machine is successfully connected to the wireless network, the WPS LED light stays on.
- Insert the supplied CD into the CD-ROM drive and proceed to install the software following the directions on the screen. When the "Connect Printer" screen appears, select the Network (Ethernet/Wireless) connection.

#### Re-connecting to a network

When the wireless function is off, the machine automatically tries to re-connect to the access point (or wireless router) with the previously used wireless connection settings and address.



In the following cases, the machine automatically re-connects to the wireless network:

- The machine is turned off and on again.
- The access point (or wireless router) is turned off and on again.

#### **Canceling the connection process**

To cancel the wireless network connection when the machine is connecting to the wireless network, press and release the (Cancel or Stop/Clear) on the control panel. You need to wait 2 minutes to re-connect to the wireless network.

#### **Disconnecting from a network**

To disconnect the wireless network connection, press the  $\mbox{\em G}$  (WPS) button on the control panel for more than two seconds.

- When the Wi-Fi network is in idle mode: The machine is immediately disconnected from the wireless network and the WPS LED turns off.
- When the Wi-Fi network is being used: While the machine waits until the current job is finished, the light blinks fast on the WPS LED. Then, the wireless network connection is automatically disconnected and the WPS LED turns off.

#### Using the menu button



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

Before starting, you will need to know the network name (SSID) of your wireless network and the Network Password if it is encrypted. This information was set when the access point (or wireless router) was installed. If you do not know about your wireless environment, please ask the person who set up your network.



After completing the wireless network connection, you need to install a machine driver to print from an application (see "Installing driver over the network" on page 137).

- 1 Press the 🗐 (**Menu**) button on the control panel.
- Press Network > Wireless > WLAN Settings.
- Press the **OK** to select the setup method you want.
  - •Wizard (recommended): In this mode, the setup is automatic. The machine will display a list of available networks from which to choose. After a network is chosen then printer will prompt for the corresponding security key.
  - •Custom: In this mode, users can give or edit manually their own SSID, or choose the security option in detail.

#### **Setup using Windows**



Shortcut to the **Wireless Setting** program without the CD: If you have installed the printer driver once, you can access the **Wireless Setting** program without the CD. From the Start menu, select **Programs** or **All Programs** > **Samsung Printers** > **your printer driver name** > **Wireless Setting Program**.

#### Access point via USB cable

#### Items to prepare

- Access point
- Network-connected computer
- Software CD that was provided with your machine
- A machine installed with a wireless network interface
- USB cable

#### **Creating the infrastructure network**

- 1 Check whether the USB cable is connected to the machine.
- Turn on your computer, access point, and machine.
- Insert the supplied software CD into your CD-ROM drive.
- Click Start Installation.
- Read the License Agreement, and select I accept the terms of the License Agreement. Then, click Next.
- Select "Wireless network setup with a USB cable" in "Connect Printer" and click Next.

After searching, the window shows the wireless network devices. Select the name (SSID) of the access point you are using and click **Next**.



If you cannot find the network name you want to choose, or if you want to set the wireless configuration manually, click **Advanced Setting**.

- Enter the wireless Network Name: Enter the SSID of the access point (SSID is case-sensitive).
- Operation Mode: Select Infrastructure.
- Authentication: Select an authentication type.

**Open System:** Authentication is not used, and encryption may or may not be used, depending on the need for data security.

**Shared Key:** Authentication is used. A device that has a proper WEP key can access the network.

**WPA Personal or WPA2 Personal:** Select this option to authenticate the print server based on a WPA Pre-Shared Key. This uses a shared secret key (generally called Pre Shared Key pass phrase), which is manually configured on the access point and each of its clients.

- Encryption: Select the encryption (None, WEP64, WEP128, TKIP, AES, TKIP AES).
- Network Password: Enter the encryption Network Password value.
- Confirm Network Password: Confirm the encryption Network Password value.
- WEP Key Index: If you are using WEP Encryption, select the appropriate WEP Key Index.



The wireless network security window appears when the access point has security settings.

If your printer supports Wi-Fi Direct, its corresponding screen will appear.

Click Ok and Next.



- Wi-Fi Direct option appears on the screen only if your printer supports this feature.
- Can start to build Wi-Fi Direct by using Samsung Easy Printer Manager (see "Setting up Wi-Fi Direct" on page 165).
- Network Name(SSID): The default Network Name is the model name and the maximum length is 22 characters (not including "Direct-xx-").
- Network Password is the numeric string, and the size is 8 ~ 64 characters.
- When the wireless network set up is completed, disconnect the USB cable between the computer and machine. Click Next.
- Click **Next** when the **Printers Found** window appears.
- 11 Select the components to be installed. Click **Next**.
- After selecting the components, you can also change the machine name, set the machine to be shared on the network, set the machine as the default machine, and change the port name of each machine. Click **Next**.

If you want to register your machine with the Samusng web site and receive useful information, click On-line Registration. If not, click Finish.

#### Ad hoc via USB cable

If you do not have an access point (AP), you may still connect the machine wirelessly to your computer by setting up an ad-hoc wireless network by following the simple steps below.

#### Items to prepare

- Network-connected computer
- Software CD that was provided with your machine
- A machine installed with a wireless network interface
- USB cable

#### Creating the ad hoc network in Windows

- 1 Check whether the USB cable is connected to the machine.
- Turn on your computer and the wireless network machine.
- Insert the supplied software CD into your CD-ROM drive.
- Click Start Installation.

- Read the License Agreement, and select I accept the terms of the License Agreement. Then, click Next.
- Select "Wireless network setup with a USB cable" in "Connect Printer" and click Next.
- 7 After searching the wireless networks, a list of wireless networks your machine has searched appears. Click the **Advanced Settings** button.



- Enter the wireless Network Name: Enter the SSID name you want (SSID is case-sensitive).
- Operation Mode: Select ad hoc.
- Channel: Select the channel. (Auto Setting or 2412 MHz to 2467 MHz).
- Authentication: Select an authentication type.
   Open System: Authentication is not used, and encryption may or may
  - **Open System:** Authentication is not used, and encryption may or may not be used, depending on the need for data security.
  - **Shared Key:** Authentication is used. A device that has a proper WEP key can access the network.
- **Encryption:** Select the encryption (None, WEP64, WEP128).
- Network Password: Enter the encryption Network Password value.
- **Confirm Network Password:** Confirm the encryption Network Password value.
- **WEP Key Index:** If you are using WEP Encryption, select the appropriate **WEP Key Index**.

The wireless network security window appears when the ad hoc network has security enabled.

Select **Open System** or **Shared Key** for the authentication and click **Next**.

- WEP (Wired Equivalent Privacy) is a security protocol preventing unauthorized access to your wireless network. WEP encrypts the data portion of each packet exchanged on a wireless network using a 64-bit or 128-bit WEP encryption key.
- The window showing the wireless network setting appears. Check the settings and click **Next**.



Before entering the IP address for the machine, you must know the computer's network configuration information. If the computer's network configuration is set to DHCP, the wireless network setting should also be DHCP. Likewise, if the computer's network configuration is set to Static, the wireless network setting should also be Static.

If your computer is set to DHCP and you want to use the Static wireless network setting, you must contact the network administrator to get the static IP address.

#### For the DHCP method

If the IP address assignment method is DHCP, check if DHCP is shown in the **Wireless Network Setting Confirm** window. If it shows Static, click **Change TCP/IP** to change the assignment method to **Receive IP** address automatically (DHCP).

#### For the Static method

If the IP address assignment method is Static, check if Static is shown in the **Wireless Network Setting Confirm** window. If it shows DHCP, click **Change TCP/IP** to enter the IP address and other network configuration values for the machine.

For example,

If the computer's network information is as shown follows:

-IP address: 169.254.133.42 -Subnet Mask: 255.255.0.0

Then, the machine's network information should be as below:

-IP address: 169.254.133.43

-Subnet Mask: 255.255.0.0 (Use the computer's subnet mask.)

-Gateway: 169.254.133.1

- The Wireless Network Setting Complete window appears. Click Next.
- When the wireless network settings are completed, disconnect the USB cable between the computer and machine. Click **Next**.
- 11 Click **Next** when the **Printers Found** window appears.
- 19 Select the components to be installed. Click **Next**.
- After selecting the components, you can also change the machine name, set the machine to be shared on the network, set the machine as the default machine, and change the port name of each machine. Click **Next**.
- 14 If you want to register your machine with the Samusng web site and receive useful information, click On-line Registration. If not, click Finish.

#### **Setup using Macintosh**

#### Items to prepare

- Access point
- Network-connected computer
- Software CD that was provided with your machine
- A machine installed with a wireless network interface

USB cable

#### Access point via USB cable

- 1 Check whether the USB cable is connected to the machine.
- 7 Turn on your computer, access point, and machine.
- Insert the supplied software CD into your CD-ROM drive.
- Double-click the CD-ROM icon that appears on your Macintosh desktop.
- Double-click the MAC\_Installer folder > Installer OS X icon.
- Click Continue.
- **7** Read the license agreement and click **Continue**.
- Click Agree to agree to the license agreement.
- When the message that warns that all applications will close on your computer appears, click **Continue**.
- Click Wireless Network Setting button on the User Options Pane.
- After searching, the window shows the wireless network devices. Select the name (SSID) of the access point you are using and click **Next**.



When you set the wireless configuration manually, click Advanced Setting.

- **Enter the wireless Network Name:** Enter the SSID of the access point (SSID is case-sensitive).
- Operation Mode: Select Infrastructure.
- Authentication: Select an authentication type.

**Open System:** Authentication is not used, and encryption may or may not be used, depending on the need for data security.

**Shared Key:** Authentication is used. A device that has a proper WEP key can access the network.

**WPA Personal or WPA2 Personal:** Select this option to authenticate the print server based on the WPA Pre-Shared Key. This uses a shared secret key (generally called Pre Shared Key pass phrase) that is manually configured on the access point and each of its clients.

- Encryption: Select the encryption. (None, WEP64, WEP128, TKIP, AES, TKIP, AES)
- **Network Password:** Enter the encryption Network Password value.
- Confirm Network Password: Confirm the encryption Network Password value.
- WEP Key Index: If you are using WEP Encryption, select the appropriate
   WEP Key Index.

The wireless network security window appears when the access point has security enabled.



- Can start to build Wi-Fi Direct by using Samsung Easy Printer Manager (see "Setting up Wi-Fi Direct" on page 165).
- Network Name(SSID): The default Network Name is the model name and the maximum length is 22 characters (not including "Direct-xx-").
- Network Password is the numeric string, and the size is 8 ~ 64 characters.
- When the wireless network settings are completed, disconnect the USB cable between the computer and machine.
- Wireless network set up is completed. After the installation is finished, click **Quit**.



After completing the wireless network connection, you need to install a machine driver to print from an application (see "Installation for Macintosh" on page 127).

#### Ad hoc via USB cable

If you do not have an access point (AP), you may still connect the machine wirelessly to your computer by setting up an ad hoc wireless network by following these simple directions.

#### Items to prepare

- Network-connected computer
- Software CD that was provided with your machine
- A machine installed with a wireless network interface
- USB cable

#### Creating the ad hoc network in Macintosh

- 1 Check whether the USB cable is connected to the machine.
- Turn on your computer and the wireless network machine.
- 2 Insert the supplied software CD into your CD-ROM drive.
- Double-click the CD-ROM icon that appears on your Macintosh desktop.
- 5 Double-click the MAC\_Installer folder > Installer OS X icon.
- Click Continue.
- 7 Read the license agreement and click **Continue**.
- Click **Agree** to agree to the license agreement.
- When the message that warns that all applications will close on your computer appears, click **Continue**.
- 10 Click Wireless Network Setting button on the User Options Pane.

11 After searching the wireless networks, a list of wireless networks your machine has searched appears. Click the **Advanced Settings** button.



- **Enter the wireless Network Name:** Enter the SSID name (SSID is case-sensitive).
- Operation Mode: Select ad hoc.
- **Channel:** Select the channel (**Auto Setting** or 2412 MHz to 2467 MHz).
- Authentication: Select an authentication type.
   Open System: Authentication is not used, and encryption may or may not be used, depending on the need for data security.
  - **Shared Key:** Authentication is used. A device that has a proper WEP key can access the network.
- **Encryption:** Select the encryption (None, WEP64, WEP128).
- Network Password: Enter the encryption Network Password value.
- Confirm Network Password: Confirm the encryption Network Password value.
- WEP Key Index: If you are using WEP Encryption, select the appropriate
   WEP Key Index.

The wireless network security window appears when the ad hoc network has security setting.

Select Open System or Shared Key for the authentication and click Next.

 WEP (Wired Equivalent Privacy) is a security protocol preventing unauthorized access to your wireless network. WEP encrypts the data portion of each packet exchanged on a wireless network using a 64-bit or 128-bit WEP encryption key.

The window showing the wireless network settings appears. Check the settings and click **Next**.



Before entering the IP address for the machine, you must know the computer's network configuration information. If the computer's network configuration is set to DHCP, the wireless network setting should also be DHCP. Likewise, if the computer's network configuration is set to Static, the wireless network setting should also be Static.

If your computer is set to DHCP and you want to use Static wireless network setting, you must contact the network administrator to get the static IP address.

#### For the DHCP method

If the IP address assignment method is DHCP, check if DHCP is shown in the **Wireless Network Setting Confirm** window. If it shows Static, click **Change TCP/IP** to change the assignment method to **Receive IP** address automatically (DHCP).

#### · For the Static method

If the IP address assignment method is Static, check if Static is shown in the **Wireless Network Setting Confirm** window. If it shows DHCP, click **Change TCP/IP** to enter the IP address and other network configuration values for the machine.

For example,

If the computer's network information is shown as follows:

-IP address: 169.254.133.42 -Subnet Mask: 255.255.0.0

Then, the machine's network information should be as shown below:

-IP address: 169.254.133.43

- -Subnet Mask: 255.255.0.0 (Use the computer's subnet mask.)
- -Gateway: 169.254.133.1
- When the window that tells you that the network cable connection is confirmed appears, disconnect the network cable and click **Next**.

  If the network cable is connected, it may have trouble finding the machine when configuring the wireless network.
- 11 The wireless network connects according to the network configuration.
- Wireless network set up is completed. After installation is finished, click **Quit**.



After completing the wireless network connection, you need to install a machine driver to print from an application (see "Installation for Macintosh" on page 127).

#### Using a network cable



Machines that do not support the network port will not be able to use this feature (see "Rear view" on page 22).

Your machine is a network compatible machine. To enable your machine to work with your network, you will need to perform some configuration procedures.



- After completing the wireless network connection, you need to install a machine driver to print from an application (see "Installing driver over the network" on page 137).
- See your network administrator, or the person that set up your wireless network, for information about your network configuration.

#### Items to prepare

- Access point
- Network-connected computer
- Software CD that was provided with your machine
- A machine installed with a wireless network interface
- Network cable

#### Printing a network configuration report

You can identify the network settings of your machine by printing a network configuration report.

See "Printing a network configuration report" on page 134.

#### **IP setting using SetIP Program (Windows)**

This program is used to manually set the network IP address of your machine using its MAC address to communicate with the machine. The MAC address is the hardware serial number of the network interface and can be found in the **Network Configuration Report**.

See "Setting IP address" on page 134.

#### Configuring the machine's wireless network

Before starting you will need to know the network name (SSID) of your wireless network and the Network Password if it is encrypted. This information was set when the access point (or wireless router) was installed. If you do not know about your wireless environment, please ask the person who set up your network.

To configure wireless parameters, you can use **SyncThru™ Web Service**.

#### Using SyncThru™ Web Service

Before starting wireless parameter configuration, check the cable connection status.

- 1 Check whether or not the network cable is connected to the machine. If not, connect the machine with a standard network cable.
- Start a web browser such as Internet Explorer, Safari, or Firefox and enter your machine's new IP address in the browser window.

For example,



- Click Login on the upper right of the SyncThru™ Web Service website.
- Type in the ID and Password then click Login.
  - ·ID: admin
  - Password: sec00000
- When the SyncThru™ Web Service window opens, click Network Settings.
- Click Wireless > Wizard.



**Wizard** will help you setup the wireless network configuration. However, if you want to set the wireless network directly, select **Custom**.

- Select the one Network Name(SSID) in the list.
  - •SSID: SSID (Service Set Identifier) is a name that identifies a wireless network, access points, and wireless devices attempting to connect to a specific wireless network must use the same SSID. The SSID is case sensitive.
  - Operation Mode: Operation Mode refers to the type of wireless connections (see "Wireless network name and Network Password" on page 148).
    - -**Ad-hoc**: Allows wireless devices to communicate directly with each other in a peer-to-peer environment.
    - -Infrastructure: Allows wireless devices to communicate with each other through an access point.



If your network's **Operation Mode** is **Infrastructure**, select the SSID of the access point. If the **Operation Mode** is **Ad-hoc**, select the machine's SSID. Note that "portthru" is the default SSID of your machine.

- Click **Next**.
  - If the wireless security setting window appears, enter the registered password (Network Password) and click **Next**.
- The confirmation window appears, please check your wireless setup. If the setup is right, click **Apply**.



Disconnect the network cable (standard or network). Your machine should then start communicating wirelessly with the network. In case of Ad-hoc mode, you can use a wireless LAN and wired LAN simultaneously.

Insert the supplied CD into the CD-ROM drive and proceed to install the software following the directions on the screen. When the "Connect Printer" screen appears, select the Network (Ethernet/Wireless) connection.

- Type in the **ID** and **Password**, then click **Login**.
  - ·ID: admin
  - Password: sec00000
- 5 When the SyncThru™ Web Service window opens, click Network Settings.
- 6 Click Wireless > Custom.
  You can also turn the Wi-Fi network on/off.

#### Turning the Wi-Fi network on/off



If your machine has a display, you can also turn on/off the Wi-Fi from the machine's control panel using the **Network** menu.

- 1 Check whether the network cable is connected to the machine. If not, connect the machine with a standard network cable.
- Start a web browser such as Internet Explorer, Safari, or Firefox and enter your machine's new IP address in the browser window.

For example,



Click **Login** on the upper right of the SyncThru<sup>™</sup> Web Service website.

#### **Setting the Wi-Fi Direct for mobile printing**

Wi-Fi Direct is an easy-to-setup peer-to-peer connecting between method for your between a printer and mobile device that supports Wi-Fi Direct that provides a secure connection and better throughput than ad hoc mode.

With Wi-Fi Direct, you can connect your printer to a Wi-Fi Direct network while concurrently connecting to an access point, You can also use a wired network and a Wi-Fi Direct network simultaneously so multiple users can access and print documents both from Wi-Fi Direct and from a wired network.



- You cannot connect to the internet through the mobile device in use Wi-Fi Direct.
- The supported protocol list may differ from your model, Wi-Fi Direct networks do NOT support IPv6, network filtering, IPSec, WINS, and SLP services.
- Up to four mobile devices can connect to Wi-Fi Direct at one time.

#### **Setting up Wi-Fi Direct**

You can enable Wi-Fi Direct feature by one of the following methods.

#### From the USB cable-connected computer(recommended)

• After the driver installation is complete, Samsung Easy Printer Manager can be set and changes in the Wi-Fi Direct can be made.



Samsung Easy Printer Manager is Available for Windowsand Macintosh OS users only.

- -From the Start menu, select Programs or All Programs > Samsung
   Printers > Samsung Easy Printer Manager > Device Settings > Network.
  - •Wi-Fi Direct On/Off: Select On to enable.

- Device Name: Enter the printer's name for searching for your printer on a wireless network. By default, the device name is the model name.
- •IP Address: Enter the IP address of the printer. This IP address is used only for the local network and not for the infrastructure wired or wireless network. We recommend using the default local IP address (the default local IP address of the printer for Wi-Fi Direct is 192.168.3.1)
- Group Owner: Activate this option to assign the printer the Wi-Fi
  Direct group's owner. The Group Owner acts similar to a wireless
  access point. We recommend activating this option.
- •Network Password: If your printer is a Group Owner, a Network Password is required for other mobile devices to connect to your printer. You can configure a Network Password yourself, or can remember the given Network Password that is randomly generated by default.

#### From the machine (Machines with a display screen)

- Select **Network** > **Wireless** > **Wi-Fi Direct** from the control panel.
- Enable Wi-Fi Direct.

#### From the network-connected computer

If your printer is using a network cable or a wireless access point, you can enable and configure Wi-Fi Direct from SyncThru™ Web Service.

- Access SyncThru<sup>™</sup> Web Service, select Settings > Network Settings > Wireless > Wi-Fi Direct.
- Enable or disable Wi-Fi Direct and set other options.



- For Linux OS users,
  - -Print an IP network configuration report to check the output (see "Printing a network configuration report" on page 134).
  - -Access SyncThru Web Service, select Settings > Network Settings > Wireless > Wi-Fi Direct.
  - -Enable or disable Wi-Fi Direct.

#### Setting up the mobile device

- After setting up Wi-Fi Direct from the printer, refer to the user manual of the mobile device you are using to set its Wi-Fi Direct.
- After setting up Wi-Fi Direct, you need to download the mobile printing application (For example: Samsung Mobile printer) to print from your smartphone.



- When you have found the printer you want to connect to from your mobile device, select the printer and the printer's LED will blink. Press the WPS button on the printer and it will be connected to your mobile device.
- If your mobile device does not support WPS, you need to enter the "Network Password" of a printer instead of pushing the WPS button.

#### What is Samsung MobilePrint?

**Samsung MobilePrint** is a free application that enables users to print photos, documents, and web pages directly from your smartphone or tablet. **Samsung MobilePrint** is not only compatible with your Android, Windows and iOS smart phones but also with your iPod Touch and tablet PC. It connects your mobile device to a network connected Samsung printer or to a wireless printer through a Wi-Fi access point. Installing a new driver or configuring network settings isn't necessary – just simply install the **Samsung MobilePrint** application, and it will automatically detect compatible Samsung printers. Besides printing photos, web pages, and PDFs, scanning is also supported. If you have Samsung multfunction printer, scan any document into a JPG, PDF, or PNG format for quick and easy viewing on your mobile device.

#### **Downloading Samsung MobilePrint**

To download **Samsung MobilePrint**, go to the application store (Samsung Apps, Android Market, App Store, Marketplace) on your mobile device, and just search for "**Samsung MobilePrint**." You can also visit iTunes for Apple devices or Marketplace for Windows devices on your computer.





#### **Supported Mobile OS**

- Android OS 2.1 or higher
- · iOS 4.0 or higher
- Windows Phone 7 or higher

#### **Supported devices**

- iOS 4.0 or higher: iPod Touch, iPhone, iPad
- Android 2.1 or higher: Galxy S, Galaxy S2, Galaxy Tab, and Android mobile devices

 Windows Phone 7 or higher: Samsung Focus, Omnia7, and OmniaW, and Windows mobile devices

#### **Troubleshooting**

#### **Problems during setup or driver installation**

#### **Printers Not Found**

- Your machine may not be turned on. Turn on your computer and the machine.
- USB cable is not connected between your computer and machine. Connect the machine to your computer using the USB cable.
- The machine does not support wireless networking. Check the machine's user's guide included on the software CD supplied with your machine and prepare a wireless network machine.

#### **Connecting Failure - SSID Not Found**

- The machine is unable to find the network name (SSID) you have selected or entered. Check the network name (SSID) on your access point and try connecting again.
- Your access point is not turned on. Turn on your access point.

#### **Connecting Failure - Invalid Security**

 Security is not configured correctly. Check the configured security on your access point and machine.

#### **Connecting Failure - General Connection Error**

• Your computer is not receiving a signal from your machine. Check the USB cable and your machine's power.

#### **Connecting Failure - Connected Wired Network**

• Your machine is connected with a wired network cable. Remove the wired network cable from your machine.

#### **PC Connection Error**

- The configured network address is unable to connect between your computer and machine.
  - -For a DHCP network environment

The receives the IP address automatically (DHCP) when computer is configured to DHCP.

-For a Static network environment

The machine uses the static address when the computer is configured to static address.

For example,

If the computer's network information is as shown below:

•IP address: 169.254.133.42

•Subnet Mask: 255.255.0.0

Then the machine's network information should be as below:

•IP address: 169.254.133.43

•Subnet Mask: 255.255.0.0 (Use the computer's subnet mask.)

•Gateway: 169.254.133.**1** 

#### Other problems

If problems occur while using the machine on a network, check the following:



For information on the access point (or wireless router), refer to its own user's guide.

- Your computer, access point (or wireless router), or machine may not be turned on.
- Check the wireless reception around the machine. If the router is far from the machine or there is an obstacle, you might have difficulty receiving the signal.
- Cycle the power for the access point (or wireless router), machine, and computer. Sometimes cycling the power can recover network communication.

- Check whether firewall software (V3 or Norton) is blocking the communication.
  - If the computer and the machine are connected on the same network and it cannot be found when searching, firewall software might be blocking the communication. Refer to the user's guide for the software to turn it off and try searching for the machine again.
- Check whether the machine's IP address is allocated correctly. You can check the IP address by printing the network configuration report.
- Check whether the access point (or wireless router) has a configured security (password). If it has a password, refer to the access point (or wireless router) administrator.
- Check the machine's IP address. Reinstall the machine driver and change the settings to connect to the machine on the network. Due to the characteristics of DHCP, the allocated IP address could change if the machine is not used for a long time or if the access point has been reset.
   Register the product's MAC address when you confogure the DHCP server on the access point (or wireless router). Then you can always use the IP address that is set with the MAC address. You can identify the Mac address of your machine by printing a network configuration report (see "Printing a network configuration report" on page 134).
- Check the wireless environment. You might not be able to connect to the network in the infrastructure environment where you need to type in a user's information before connecting to the access point (or wireless router).
- This machine only supports IEEE 802.11 b/g/n and Wi-Fi. Other wireless communication types (e.g., Bluetooth) are not supported.

- When using the ad hoc mode, in operating systems such as Windows Vista, you might need to set the wireless connection setting every time you use the wireless machine.
- You cannot use infrastructure mode and ad hoc mode at the same time for Samsung wireless network machines.
- The machine is within the range of the wireless network.
- The machine is located away from obstacles that could block the wireless signal.
  - Remove any large metal objects between the access point (or wireless router) and the machine.
  - Make sure the machine and wireless access point (or wireless router) are not separated by poles, walls, or support columns containing metal or concrete.
- The machine is located away from other electronic devices that may interfere with the wireless signal.
  - Many devices can interfere with the wireless signal, including a microwave oven and some Bluetooth devices.
- Whenever the configuration of your access point (or wireless router) changes, you must do the product's wireless network setup again.



# 3. Useful Setting Menus

This chapter explains how to browse the current status of your machine, and the method of setting for advanced machine setup.

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## Before you begin reading a chapter

This chapter explains all the features available for this series' models to help users easily understand the features. You can check the features available for each model in the Basic Guide (see "Menu overview" on page 30). The following are tips for using this chapter

- The control panel provides access to various menus to set up the machine or use the machine's functions. These menus can be accessed by pressing 🗐 (Menu).
- Some menus may not appear on the display depending on options or models. If so, it is not applicable to your machine.
- For models that do not have the 🗐 (Menu) on the control panel, this feature is not applicable (see "Control panel overview" on page 23).
- Some menu names may differ from your machine depending on its options or the models.

## **Print menu**



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

- Press 🗐 (Menu) > Print Setup on the control panel.
- Or press **Setup** > **Machine Setup** > **Print Setup** on the touch screen.

ltem	Description
Orientation	Selects the direction in which information is printed on a page.
Copies	You can enter the number of copies using the number keypad.
Resolution	Specifies the number of dots printed per inch (dpi). The higher the setting, the sharper printed characters and graphics.
Darkness	Lightens or darkens the print on the page. The <b>Normal</b> setting usually produces the best result. Use the <b>Light</b> toner density setting to save toner.
Darken Text	Prints text darker than on a normal document.
Emulation	Sets the emulation type and option.

#### **Copy feature**



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

- Press (copy) > [ (Menu) > Copy Feature on the control panel.
- Or press **Setup** > **Machine Setup** > **Default Setting** > **Copy Default** on the touch screen.
- Or press **Copy** > select the menu item you want on the touch screen.

ltem	Description
<ul><li>Scan Size</li><li>Original Size</li></ul>	Sets the image size.
Copies	You can enter the number of copies using the number keypad.

Item	Description
	Reduces or enlarges the size of a copied image (see "Reduced or enlarged copy" on page 61).
Reduce/Enlarge	If the machine is set Eco mode, reduce and enlarge features are not available.
Darkness	Adjusts the brightness level to make a copy that is easier to read, when the original contains faint markings and dark images (see "Darkness" on page 60)
Contrast	Adjusts the contrast level to scan an original that is easier to read, when the original contains too faint or too dark contents (see "Contrast" on page 61)
Original Type	Improves the copy quality by selecting the document type for the current copy job (see "Original" on page 61)
Original Orientation	Sets the original image's orientation.
Layout	Adjusts the layout format such as poster, clone, ID copy, 2/4-up, booklet, etc.

Item	Description
<ul><li>Copy Collation</li><li>Collate Copy</li></ul>	Set the machine to sort the copy job. For example, if you make 2 copies of a 3 page original, one complete 3 page document will print followed by a second complete document.
	• <b>On:</b> Prints output in sets to match the sequence of originals.
	<ul> <li>Off: Prints output sorted into stacks of individual pages.</li> </ul>

Item	Description
<ul><li>2-up or 4-up</li><li>N-up Copy</li></ul>	Reduces the size of the original images and prints 2 or 4 pages onto one sheet of paper.
	This copy feature is available only when you load originals into the document feeder.

ltem	Description
Item Poster Copy	Prints a single-page document onto 4 (Poster 2x2), 9 (Poster 3x3), or 16 (Poster 4x4) sheets of paper, for the purpose of pasting the sheets together to form one poster-size document.
	<ul> <li>This copy feature is available only when you place originals on the scanner glass.</li> <li>Your original is divided into 9 portions. Each portion is scanned and printed one by one in the following order:</li> <li>1 2 3</li> <li>4 5 6</li> </ul>
	7 8 9

Item	Description
	Prints multiple original images on a single page. The number of images is automatically determined by the original image and the paper size.
Clone Copy	
	This copy feature is available only when you place originals on the scanner glass.
	<ul> <li>You cannot adjust the copy size using Reduce/Enlarge for the Clone Copy feature.</li> </ul>

ltem	Description
Book Copy	The Book Copy feature allows you to copy an entire book. If the book is too thick, lift the cover until its hinges are caught by the stopper and then close the cover. If the book or magazine is thicker than 30 mm, start copying with the cover open.  • Off: Does not use this feature.  • Left Page: Use this option to print left page of the book.  • Right Page: Use this option to print right page of the
	<ul><li><b>Both Page:</b> Use this option to print both pages of the book.</li></ul>
	This copy feature is available only when you place originals on the scanner glass.

Item	Description
	The machine automatically prints on one or both sides of the paper, which are then folded to produce a booklet with all of the pages in the correct sequence.
Booklet <sup>a</sup>	The machine will reduce and correctly adjust the position of each image to fit on the selected paper.
	Prints an image without its background. This copy feature removes the background color and can be helpful when copying an original containing color in the background, such as a newspaper or a catalog.
Adjust Bkgd	Off: Does not use this feature.
Aujust Drigu	Auto: Optimizes the background.
	• Enhance Lev.1~2: The higher the number is, the more vivid the background is.
	• Erase Lev.1~4: The higher the number is, the lighter the background is.

ltem	Description
	Allows you to create a binding edge for the document. The image can be adjusted up or down on the page and/or shifted to the right or left.
Margin Shift copying	
	Off: Does not use this feature.
	• <b>Auto Center:</b> Automatically copy in the center of the paper. This feature is available only when you place originals on the scanner glass.
	Custom Margin: Enter the left, right, top, bottom margin using Number keypad.

Item	Description
	Allows you to erase spots, drill holes, fold creases and staple marks along any of the four edges of a document.
	Off: Does not use this feature.
Edge Erase copying	• <b>Small Original:</b> rases the edge of the original if it is small. This feature is available only when you place originals on the scanner glass.
	• Hole Punch: Erases the marks of bookbinding holes.
	Book Center: Erases the middle part of the paper which is black and horizontal, when you copy a book. This feature is available only when you place originals on the scanner glass.
	Border Erase: Enter the left, right, top, bottom margin using Number keypad.
Gray Enhance copying	When you make a copy in gray scale, use this feature to get better quality of copy-output.

Item	Description
Watermark copying	The watermark option allows you to print text over an existing document. For example, you use it when you want to have large gray letters reading "DRAFT" or "CONFIDENTIAL" printed diagonally across the first page or all pages of a document.
Duplex <sup>a</sup>	You can set the machine to print copies on both sides of paper.  Off: Prints in normal mode.  1->2Side Short  1->2Side Long

Item	Description
Duplex (continue)	· 2->1Side $ A^{AA} \rightarrow A^{AA} B^{BB} $ · 2->2Side $ A^{AA} \rightarrow A^{AA} $ · 2->1Side ROT2
	$ \begin{array}{c}                                     $

a. Not supported SCX-472xFN Series.

#### **Copy Setup**



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

To change the menu options:

Press  $(copy) > \frac{1}{2}$  (Menu) > Copy Setup on the control panel.

ltem	Description
Change Default	Resets the value or setting to the printer's out-of-box state.

#### **Fax Feature**



- Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).
- Some features and optional goods may not be available depending on model or country (see "Features by models" on page 5).

- Press (fax) > (Menu) > Fax Feature on the control panel.
- Or press **Setup** > **Machine Setup** > **Default Setting** > **Fax Default** on the touch screen.
- Or press **Fax** > select the menu item you want on the touch screen.

ltem	Description
<ul><li>Scan Size</li><li>Original Size</li></ul>	Sets the image size.
Contrast	Adjusts the contrast level to scan an original that is easier to read, when the original contains too faint or too dark contents.

Item	Description
Darkness	Adjusts the brightness level to scan an original that is easier to read, when the original contains faint markings and dark images (see "Darkness" on page 60).
Resolution	The default document settings procedure good results when using typical text-based originals. However, if you send originals that are of poor quality, or contain photographs, you can adjust the resolution to produce a higher quality fax (see "Resolution" on page 68).
Duplex <sup>a</sup>	prints the received fax on both sides of paper.
Multi Send	Sends a fax to multiple destinations (see "Sending a fax to multiple destinations" on page 66).
	You cannot send a color fax using this feature.
Delay Send	Sets your machine to send a fax at a later time when you will not be present (see "Delaying a fax transmission" on page 237).
	You cannot send a color fax using this feature.

ltem	Description
Priority Send	Scans the original into memory and immediately transmits it when the current operation is finished. Priority transmission will interrupt a sending to multiple destinations between stations (example, when the transmission to station A ends, before transmission to station B begins) or between redial attempts (see "Sending a priority fax" on page 238).
Forward	<ul> <li>Forwards the received or sent fax to other destination by a fax or PC. If you are out of office but have to receive the fax, this feature may be useful.</li> <li>See "Forwarding a sent fax to another destination" on page 238.</li> <li>See "Forwarding a received fax" on page 239.</li> </ul>
Secure Receive	Stores the received fax in memory without printing out. To print received documents, you need to enter the password. You can prevent your received faxes from being accessed by unauthorized people (see "Receiving in secure receiving mode" on page 243).
Add Page	Adds additional documents to a reserved delay fax job (see "Adding documents to a reserved fax" on page 237).
Cancel Job	Cancels the delayed fax job which is saved in memory (see "Canceling a reserved fax job" on page 238).

a. Not supported SCX-472xFN Series.

#### **Sending setup**



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

- Press (fax) > (Menu) > FaXx Setup > Sending on the control panel.
- Or press **Setup** > **Machine Setup** > **Default Setting** > **Fax Default** on the touch screen.

ltem	Description
Redial Times	Sets the number of redial attempts. If you enter 0, the machine will not redial.
Redial Term	Sets the time interval before automatic redialling.
Prefix Dial	Sets a prefix of up to five digits. This number dials before any automatic dial number is started. It is useful for accessing a PABX exchange.
ECM Mode	Sends faxes using error correction mode (ECM) to makes sure the faxes are sent smoothly without any error. It may take more time.

Item	Description
Send Report	Sets the machine to print a report whether a fax transmission was successfully completed or not. If you select <b>On-Error</b> , the machine prints a report only when a transmission is not successful.
Image TCR	Prints a transmission report with a minimized image of the first page of the fax sent.
Dial Mode	Sets the dialing mode to either tone or pulse. This setting may not be available depending on your country.
Toll Save	Sends faxes at a preset toll-saving time to save on call costs. This setting may not be available depending on your country.
Setup Wizard	Makes it easy to configure the necessary fax options such as machine ID, fax number, etc.

#### **Receiving setup**



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

- Press (fax) > (Menu) > Fax Setup > Receiving on the control panel.
- Or press **Setup** > **Machine Setup** > **Default Setting** > **Fax Default** on the touch screen.

Item	Description
Receive Mode	Selects the default fax receiving mode.
Ring To Answer	Specifies the number of times the machine rings before answering an incoming call.
Stamp RCV Name	Automatically prints the page number, and the date and time of reception at the bottom of each page of a received fax.
Rcv Start Code	Initiates fax reception from an extension phone plugged into the EXT socket on the back of the machine. If you pick up the extension phone and hear fax tones, enter the code. It is preset to *9* at the factory.
Auto Reduction	Automatically reduces an incoming fax page to fit the size of the paper loaded in the machine.
Discard Size	Discards a specific length from the end of the received fax.
Junk Fax Setup	Blocks any unwanted faxes that you stored in the memory as junk fax numbers. This setting may not be available depending on your country.

ltem	Description
DRPD Mode	Enables a user to use a single telephone line to answer several different telephone numbers. You can set the machine to recognize different ring patterns for each number. This setting may not be available depending on your country (see "Receiving faxes using DRPD mode" on page 242).
Duplex Print <sup>a</sup>	Prints the received fax data on both sides of the paper. You can save the paper usage.
<ul><li>Doc Box Saving</li><li>Document Box Saving</li></ul>	Stores received faxes in the common box. This menu only appears when an optional mass storage device (HDD) drive has been installed (see "Variety feature" on page 8).

a. Not supported SCX-472xFN Series.

### Scan menu

#### **Scan feature**



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

- Press  $(scan) > \frac{1}{\sqrt{2}}$  (Menu) > Scan Feature on the control panel.
- Or press Setup > Machine Setup > Default Setting > Scan Default on the touch screen.
- Or press **Scan** > select the menu item you want on the touch screen.

ltem	Description
<ul><li> USB Default</li><li> USB</li></ul>	Sets scan destination to a USB. You scan the originals and save the scanned image to a USB device.
<ul><li> Email Default</li><li> Send Email</li><li> Custom Email</li></ul>	Sets scan destination to an email. You scan the originals and email the scanned image to destinations (see "Scanning to email" on page 226).
<ul><li>FTP Default</li><li>FTP</li></ul>	Sets scan destination to an FTP server. You scan the originals and send the scanned image to an FTP server (see "Scanning to FTP/SMB server" on page 227).

Item	Description
<ul><li>SMB Default</li><li>SMB</li></ul>	Sets scan destination to an SMB server. You scan the originals and send the scanned image to an SMB server (see "Scanning to FTP/SMB server" on page 227).
Send Report	Prints a confirmation report showing whether the scanned image sending was successful.
Local PC	Sets scan destination to a usb-connected computer. You scan the originals and save the scanned image to a directory such as <b>My Documents</b> (see "Basic Scanning" on page 64).
Network PC	Sets scan destination to a network-connected computer. You scan the originals and save the scanned image to a directory such as <b>My Documents</b> (see "Scanning from network connected machine" on page 225).
Document Box	Sets scan destination to a <b>Document Box</b> . You scan the originals and send the scanned image to the storage which called <b>Document Box</b> in the machine.
Shared Boxes	Sets scan destination to a shared folder. You can create and use the shared folder (see "Using shared folder features" on page 246).

## Scan menu

#### **Scan setup**



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

- Press  $(scan) > \frac{1}{\sqrt{2}}$  (Menu) > Scan Setup on the control panel.
- Or press **Setup** > **Machine Setup** > **Default Setting** > **Scan Default** on the touch screen.

Item	Description
<ul><li>Scan Size</li><li>Original Size</li></ul>	Sets the image size.
Original Type	Sets the original document's type.
Resolution	Sets the image resolution.
Color Mode	Sets the color mode.
File Format	Sets the file format in which the image is to be saved. If you select BMP, JPEG, TIFF, or PDF, you can select to scan multiple pages.
Darkness	Adjusts the brightness level to scan.

ltem	Description
Contrast	Adjust the contrast level to scan lighter or darker than the original.

## System setup

#### **Machine setup**



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

- Press (Menu) > System Setup > Machine Setup on the control panel.
- Or press **Setup** > **Machine Setup** > **Initial Setup** on the touch screen.

Item	Description
Machine ID	Sets the machine ID which will be printed at the top of each fax page that you send.
Fax Number	Sets the fax number which will be printed at the top of each fax page that you send.
Date & Time	Sets the date and time.
Clock Mode	Selects the format for displaying time between 12 hr. and 24 hr.
Form Menu	Off: Prints in normal mode.
	• Single Form: Prints all page using the first form.
	Double Form: Prints the front page using the first form and the back page using the second form.

ltem	Description
Select Form	Form overlay is images stored on the printer's mass storage device (HDD) as a special file format that can be printed in layers on any document.
HDD Spooling	When <b>On</b> , stores documents on the mass storage device (HDD) for network printing.
Language	Sets the language of the text that appears on the control panel display.
Default Mode	Sets the machine's default mode among fax mode, copy mode, or scan mode.
Default Paper Size	You can set the default paper size to use.
PowerSave	Sets how long the machine waits before going to power save mode.  When the machine does not receive data for an extended
	period of time, power consumption is automatically lowered.
Scan PWR Save	Sets how long the machine's scanner part waits before going to power save mode.
	When the scanner does not receive data for an extended period of time, power consumption is automatically lowered.
System Timeout	Sets the time that the machine remembers previously used copy settings. After the timeout, the machine restores the default copy settings.

ltem	Description
Job Timeout	Sets the length of time the printer waits before printing the last page of a print job that does not end with a command to print the page.
	You can set the condition to wake up from power-save mode. Set the item on.
Wakeup Event	<ul> <li>Button Press: When you press any button except power button, the machine wake up from the power save mode.</li> </ul>
	<ul> <li>Scanner: When you insert paper in the document feeder, the machine wake up from the power save mode.</li> </ul>
	• <b>Printer:</b> When you open or close the scan unit, the machine wake up from the power save mode.
	Determine whether or not the machine continues printing when it detects the paper does not match the paper settings.
Auto Continue	Off: If a paper mismatch occurs, the machine waits until you insert the correct paper.
	<ul> <li>On: If a paper mismatch occurs, an error message will display. The machine waits for about 30 second, then automatically clear the message and continue printing.</li> </ul>
Altitude Adj.	Optimize print quality according to the machine's altitude.
<ul> <li>Altitude</li> <li>Adjustment</li> </ul>	antique.

Item	Description
Auto CR	Allows you to append the required carriage return to each line feed, which is useful for Unix or DOS users.
Firmware Version	Shows the product's firmware version.
AutoComplete	Provides suggestions while you type an email address or fax number. This enables you to find and select the data without typing it in completely.
<ul><li>Tray Chaining</li><li>Auto Tray Switch</li></ul>	Determine whether or not the machine continues printing when it detects the paper does not match. For example, if both tray 1 and tray 2 are filled with the same size paper, the machine automatically prints from tray 2 after the tray 1 runs out of paper.
	This option does not appear if you selected <b>Auto</b> for <b>Paper Source</b> from printer driver.
Paper Substitution	Automatically substitutes the printer driver's paper size to prevent the paper mismatch between Letter and A4. For example, if you have A4 paper in the tray but you set the paper size to Letter in the printer driver, the machine prints on A4 paper and vice versa.
Paper Mismatch	Determine whether to disregard the paper mismatch error or not. Select <b>Off</b> , then the machine does not stop printing even if the paper mismatches.

ltem	Description	
PrintBlankPage	The printer detects the printing data from computer whether a page is empty or not. You can set to print or skip the blank page.	
Multi-Bin	<ul><li>Mode: Selects the multi-bin mode you want to use.</li><li>Default Bin: Selects the bin to use as a default.</li></ul>	
<b>Default Source</b>	Sets the tray to use as a default.	
Address Book	Views or prints the phone book or email address list.	
Maintenance	<ul> <li>Clean Drum: Cleans the OPC drum of the cartridge by printing a sheet.</li> <li>Clean Fuser: Cleans the fuser by printing a sheet.</li> <li>CLR Empty Msg.: This option appears only when toner cartridge is empty.</li> <li>Supplies Info.: Allows you to check how many pages are printed and how much toner is left in the cartridge.</li> <li>TonerLow Alert: If toner in the cartridge has run out, a message informing the user to change the toner cartridge appears. You can set the option for this message to appear or not.</li> <li>Paper Stacking: If you use a machine in a humid area, or you are using the damp print media caused by a high humidity, the print-outs on the output tray may be curled and may not be stacked properly. In this case, you can set the machine to use this function to let print-outs stacked firmly. But, using this function will make the print speed slow.</li> </ul>	

ltem	Description	
Import Setting	Imports data stored on a USB memory stick to the machine.	
Export Setting	Exports data stored on a USB memory stick to the machine.	
Toner Save	Activating this mode extends the life of your toner cartridge and reduces your cost per page beyond what one would experience in the normal mode, but it reduces print quality.	
Quiet Mode	You can reduce the printing noise by turning this menu on. However, the printing speed and quality may be declined.	
	<ul> <li>Allows you to save print resources and enables ecofriendly printing.</li> <li>Default Mode: Select whether to turn the Eco mode on or off.</li> </ul>	
Eco Settings	On force (On-Forced): Sets the Eco mode on with password. If a user wants to turn the Eco mode on/off, the user needs to enter the password.  • Select Template (Select Temp.): Selects the eco	
Clear Setting	template set from the SyncThru™ Web Service.  Restores the machine's factory default settings.	

### Paper setup



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

#### To change the menu options:

- Press \$\frac{1}{2}\$ (Menu) > System Setup > Paper Setup on the control panel.
- Or press **Setup** > **Machine Setup** > **Paper Setup** on the touch screen.

ltem	Description	
Paper Size	Sets the paper size as A4, Letter, or other paper sizes, according to your requirements.	
Paper Type	Chooses the type of the paper for each tray.	
Paper Source	Selects from which tray the paper is used.	
Margin	Sets the margins for the document.	
Tray Confirm	Activates the tray confirmation message. If you open and close a tray, a window asking you whether to set the paper size and type for the tray just opened appears.	

### Sound / Volume



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

#### To change the menu options:

- Press (Menu) > System Setup > Sound/Volume on the control panel.
- Or press Setup > Machine Setup > Initial Setup > Sound/Volume on the touch screen.

ltem	Description
Key Sound	Turns the key sound on or off. With this option set to on, a tone sounds each time a key is pressed.
Alarm Sound	Turns the alarm sound on or off. With this option set to on, an alarm tone sounds when an error occurs or fax communication ends.

ltem	Description
	Turns on or off the sounds from the telephone line through the speaker, such as a dial tone or a fax tone. With this option set to <b>Comm.</b> which means the speaker is on until the remote machine answers.
Speaker	You can adjust the volume level using <b>On Hook Dial</b> . You can adjust the speaker volume only when the telephone line is connected. <b>a</b> Press (fax) on the control panel. <b>b</b> Press <b>On Hook Dial</b> . A dial tone sounds from the speaker. <b>c</b> Press the arrows until you hear the volume you want. <b>d</b> Press <b>On Hook Dial</b> to save the change and return to ready mode.
Ringer	Adjusts the ringer volume. For the ringer volume, you can select off, low, middle, and high level.

### Report



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

To change the menu options:

- Press 🗐 (Menu) > System Setup > Report on the control panel.
- Or press **Setup** > **Machine Setup** > **Reports** on the touch screen.

ltem	Description
Menu Map	Prints the menu map which shows the layout and current settings of this machine.
All Reports	Prints all kinds of reports that this machine provides.
Configuration	Prints a report on the machine's overall configuration.
<ul><li>Supplies Info.</li><li>Supplies Information</li></ul>	Prints supplies' information page.
Address Book	Prints all of the email addresses currently stored in the machine's memory.

Item	Description
Demo Page	Prints the demo page to check whether your machine is printing properly or not.
Fax Send	Prints a transmission report including the fax number, the number of pages, the elapsed time of the job, the communication mode, and the communication results for fax job. You can set up your machine to automatically print a transmission confirmation report after each fax job.
Fax Sent	Prints information on the faxes you have recently sent.
Fax Received	Prints information on the faxes you have recently received.
Email Sent	Prints information on the emails you have recently sent.
<ul><li>Scheduled Jobs</li><li>Fax Scheduled Jobs</li></ul>	Prints the document list currently stored for delayed faxes along with the starting time and type of each operation.
JunkFax	Prints the fax numbers specified as junk fax numbers.
<ul><li>Network Conf.</li><li>Network Configuration</li></ul>	Prints information on your machine's network connection and configuration.

ltem	Description
<ul><li>User Auth</li><li>Local User Authentication</li></ul>	Prints the authorized users who are allowed to use the email function.
PCL Font	Prints the PCL font list.
<ul><li>PS Font</li><li>PS3 Font</li></ul>	Prints the PS/PS3 font list.
EPSON Font	Prints the EPSON font list.
KSC5843 Font	Prints the KS5843 font list.
KSC5895 Font	Prints the KS5895 font list.
KSSM Font	Prints the KSSM font list.
<ul><li>Net User Auth</li><li>Network User Authentication</li></ul>	Prints the users and their IDs who logged in the domain.
Usage Counter	Prints a usage page. The usage page contains the total number of pages printed.
Fax Options	Prints the information of a fax reports.
<ul><li>Stored Job List</li><li>Stored Jobs</li></ul>	Prints jobs currently stored in the optional memory or on a mass storage device (HDD).
<ul><li>Completed Job</li><li>Completed Jobs</li></ul>	Prints list of completed jobs.

ltem	Description
<ul><li>Accounting Report</li><li>Accounting</li></ul>	This is used only available when Job Accounting is enabled from the SyncThru™ Web Admin Service. You can print a report of printout counts for each user.

#### Maintenance



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

#### To change the menu options:

- Press (Menu) > System Setup > Maintenance on the control panel.
- Or press Setup > Machine Setup > Initial Setup on the touch screen.

ltem	Description
CLR Empty Msg.	When toner cartridge is empty, this option appears. You can clear the empty message.
Ignore Toner	You can set the machine to ignore the toner empty message and continue printing except incoming faxes.

ltem	Description
Supplies Life	Shows the supply life indicators (see "Monitoring the supplies life" on page 76.)
TonerLow Alert	Customizes the level to alert toner low or toner empty (see "Setting the toner low alert" on page 77).
<ul><li>Serial Number</li><li>Serial No.</li></ul>	Shows the machine's serial number. When you call for service or register as a user on the Samsung website, you can find this.
Paper Stacking	Enables the automatic linking feature for trays. when one tray is not available for paper empty or mismatch, this option allows your printer to feed paper from another available tray.
Color	Allows you to adjust the color setting such as contrast level, color registration, color density, etc.
Ram Disk	Sets some part of ram disk to the job storage area. Using the storage area activates the job manage menu (see "Job manage" on page 193). This allows the data from your computer to be sent to the print queue of the ram disk.

### **Clear setting**



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

#### To change the menu options:

- Press (Menu) > System Setup > Clear Setting on the control panel.
- Or press **Setup** > **Machine Setup** > **Restore Options** on the touch screen.

Item	Description
All Setting	Clears all of the data stored in memory and resets all of your settings to the factory default.
Printer Setup	Restores all of the printer options to the factory default.
Paper Setup	Restores all of the paper options to the factory default.
<ul><li>Fax Setup</li><li>Fax Default</li></ul>	Restores all of the fax options to the factory default.
<ul><li>Copy Setup</li><li>Copy Default</li></ul>	Restores all of the copy options to the factory default.

ltem	Description
<ul><li>Scan Setup</li><li>Scan Default</li></ul>	Restores all of the scan options to the factory default.
System Setup	Restores all of the system options to the factory default.
Network Setup	Restores all of the network options to the factory default. (Reboot required.)
Address Book	Clears all of the email address entries stored in memory.
<ul><li>Fax Sent</li><li>Sent Report</li></ul>	Clears all records of sent faxes.
Email Sent	Clears all records of sent emails.
<ul><li>Fax Received</li><li>Fax RCV Report</li><li>Rcvd Report</li></ul>	Clears all records of received faxes.

### Job manage



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

To change the menu options:

• Press [ (Menu) > System Setup > Job Manage on the control panel.

ltem	Description
Active Job	Shows the print job lists that are waiting to be printed.
Store Job	Shows the print job lists that are stored on the disk.
File Policy	If the memory already has the same name when you entered a new file name, you can rename or overwrite it.

### **Image overwrite**



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

• Press 🗐 (Menu) > System Setup > ImageOverwrite on the control panel.

ltem	Description
Manual	You can overwrite the embedded USB memory to clear all of the data stored in.

### **USB** setup



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

• Press **USB** on the touch screen.

Option	Description
Print From	Views the file list from the <b>File Navigation</b> . Select a file to print.
Scan to USB	Sets scan destination to a USB. You scan the originals and save the scanned image to a USB device.
File Manage	Views the file list from the <b>File Navigation</b> . Select a file to delete. You can format the USB device.
Show Space	Shows the remaining space.

### **Emulation setup**



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

Press 🗐 (Menu) > Print Setup > Emulation on the control panel.

ltem	Description
Emulation Type	The machine language defines how the computer communicates with the machine.
Setup	Sets the detailed settings for the selected emulation type.

### **Email setup**



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

• Press **Setup** > **Machine Setup** > **Email Setup** on the touch screen.

Option	Description
SMTP Server	Sets the SMTP server configuration.
Send to Self	Sets to send the mail to yourself so that you can back up the email or use as a reminder.
<b>Default To Address</b>	Sets an email destination address as a default one.
<b>Default From</b>	Sets a sender's email address as a default one.
Default Subject	Sets an email's subject as a default one.

### Address book setup



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

Press Setup > Machine Setup > Address Book on the touch screen.

Option	Description
PhoneBook	Adds, views, prints or deletes the phone book list. You also can create a group.
Email	Adds, views, prints or deletes the email list. You also can create a group.

### **Document box setup**



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

#### **Doc Box Feature**

Press (Menu) > Document Box > Doc Box Feature on the control panel.

Option	Description
Add From Scan	Stores scanned documents in a box. The stored file will be named automatically as "yearmonthdayhourminutesecond".
Task From Box	Prints a document from a box.

#### **Doc Box Setup**

• Press (Menu) > Document Box > Doc Box Setup on the control panel.

Option	Description
Add From Scan	Sets the default options for storing the document to a box.
Task From Box	Sets the default options for printing the document from a box.

### **Network setup**



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

- Press (Menu) > Network on the control panel,
- Or press **Setup** > **Machine Setup** > **Network Setup** on the touch screen.

Option	Description	
TCP/IP (IPv4)	Selects the appropriate protocol and configure parameters to use the network environment.	
	There are lots of parameters to be set. If you are not sure, leave as is, or consult the network administrator.	
TCP/IP (IPv6)	Selects this option to use the network environment through IPv6 (see "IPv6 configuration" on page 145).	
Ethernet Speed	Configure the network transmission speed.	
802.1x	You can selects the user authentication for network communication. For detailed information consult the network administrator.	

Option	Description
Wireless	Selects this option to use the wireless network.
Clear Setting	Reverts the network settings to the default values. (Reboot required.)
<ul><li>Network Conf.</li><li>Network Configuration</li></ul>	This list shows information on your machine's network connection and configuration.
Net. Activate	You can sets whether to use Ethernet on or off.
Http Activate	You can sets whether to use SyncThru <sup>™</sup> Web Service or not.

# **Admin setup**

Item	Description	
Password Protect	Sets the password to access the <b>Admin Setup</b> menu. Select <b>On</b> to use this option and enter the password.	
Change Password	Changes the machine's password for accessing the <b>Admin Setup</b> .	
	Clean Fuser: Cleans the fuser by printing a sheet. The printed sheet has toner debris on it.	
	• <b>CLR Empty Msg.:</b> Prevents the <b>TonerLow Alert</b> message from appearing on the display.	
	• <b>Supplies Info.:</b> Allows you to check how many pages are printed and how much toner is left in the cartridge.	
Maintenance	TonerLow Alert: If toner in the cartridge has run out, a message informing the user to change the toner cartridge appears. You can set the option for this message to appear or not.	
	• Ram Disk: Enables/disables RAM disk to manage jobs. Depending on the installed optional memory size, you can set the RAM disk size to between 32 and 64 MB. This option does not appear if you have installed mass storage device (HDD).	

## **Custom setup**

This menu appears only when the **XOA** (eXtensible Open Architecture) web application is installed. Contact the administrator to use this menu.



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

• Press  $\frac{1}{\sqrt{2}}$  (Menu) > Custom on the control panel.



# 4. Special Features

This chapter explains special copying, scanning, faxing, and printing features.

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•	Storing email address	202
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•	Using shared folder features	246
•	Using memory/hard drive features	247

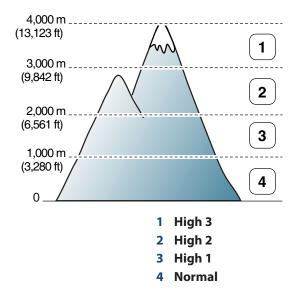


- The procedures in this chapter are mainly based on Windows 7.
- It may be necessary to press **OK** to navigate to lower-level menus for some models.

# Altitude adjustment

Print quality is affected by atmospheric pressure, which is determined by the height of the machine above sea level. The following information will guide you on how to set your machine for the best print quality.

Before you set the altitude value, determine the altitude where you are.



You can set the altitude value from **Device Settings** in Samsung Easy Printer Manager program or **Machine** section in Printer Settings Utility program.

- For Windows and Macintosh users, see "Device Settings" on page 257.
- For Linux users, see "Using Smart Panel" on page 260.



- If your machine is connected to the network, you can set the altitude via SyncThru™ Web Service (see "Using SyncThru™ Web Service" on page 252).
- You can also set the altitude in System Setup option on the machine's display (see "Menu overview" on page 30).

# **Storing email address**

You can set up address book with the email addresses you use frequently via SyncThru<sup>™</sup> Web Service and then easily and quickly enter email addresses by entering the location numbers assigned to them in address book.

### Storing on your machine

To scan and send an image as an email attachment, you need to set up email address using SyncThru<sup>™</sup> Web Service.

- Access the SyncThru<sup>™</sup> Web Service (see "Using SyncThru<sup>™</sup> Web Service" on page 252).
- Click **Login** on the upper right of the SyncThru<sup>™</sup> Web Service website.
- Type in the **ID** and **Password** then click **Login**.
  - ID: admin
  - Password: sec00000
- Click Address Book > Individual > Add.
- Select the **Speed No.** and enter e-mail address and fax number.



If you need to set SMB or FTP sever information, check SMB or FTP and set the information.

- Click Apply.
- If you make a group, click **Address Book** > **E-mail Group** > **Add Group**.
- Select the **Speed No.** and enter **Group Name**.



You can easily add individual address if you check Yes for Add individual(s) after this group is created.

Click Apply.

#### Searching for an email address

### Searching sequentially through memory

Select (scan) > (Address Book) > Search & Send > Select an address group > All on the control panel.

Or select Setup > Machine Setup > Next > Address Book > Email > **View List** > **Individual** or **Group** on the touch screen.

Search through the entire memory in index (numerical) order, and select the name and address you want.

# **Storing email address**

### Searching with a particular first letter

- 1 Select (scan) on the control panel.
- Press (Address Book) > Search & Send > Select an address group > ID on the control panel.
- Enter the first few letters of the name you want.
- Press the arrows until the name and number you want appears.

## **Entering various characters**

As you perform various tasks, you may need to enter names and numbers. For example, when you set up your machine, you enter your name or your company's name, and the fax number. When you store fax numbers or email addresses in memory, you may also enter the corresponding names.

#### **Entering alphanumeric characters**

Press the button until the correct letter appears on the display. For example, to enter the letter O, press 6, labeled with MNO. Each time you press 6, the display shows a different letter, M, N, O, m, n, o and finally 6. To find the letter that you want to enter, see "Keypad letters and numbers" on page 204.



- You can enter a space by pressing 1 twice.
- To delete the last digit or character, press the left/right or up/down arrow button.

### **Keypad letters and numbers**



- Special character sets may differ from your machine depending on its options or the models.
- Some of the follow key values may not appear depending on the job you are doing.

Key	Assigned numbers, letters, or characters
1	@/.'1
2	ABCabc2
3	DEFdef3
4	GHIghi4
5	JKLjk15
6	M N O m n o 6
7	PQRSpqrs7
8	TUVtuv8
9	WXYZwxyz9
0	& + - , 0
*	*%^_~!#\$()[]
	(These symbols are available when you type for network authentication.)
#	#= ?":{}<>;
	(These symbols are available when you type for network authentication.)

# Setting up the fax address book

You can set up speed number with the fax numbers you use frequently via SyncThru™ Web Service and then easily and quickly enter fax numbers by entering the location numbers assigned to them in address book.

### Registering a speed dial number

Select (fax) > (Address Book) > New & Edit > Speed Dial on the control panel.

Or select **Setup** > **Machine Setup** > **Next** > **Address Book** > **Phone Book** > **View List** > **Individual** > **(options)** > **Add** on the touch screen.

**)** Enter a speed dial number and press **OK**.



If an entry is already stored in the number you choose, the display shows the message to allow you to change it. To start over with another speed dial number, press (Back).

- **2** Enter the name you want and press **OK**.
- 4 Enter the fax number you want and press **OK**.
- 5 Press the (X) (Cancel or Stop/Clear) button to return to ready mode.

#### **Using speed dial numbers**

When you are prompted to enter a destination number while sending a fax, enter the speed dial number at which you stored the number you want.



- For a one-digit (0-9) speed dial number, press and hold the corresponding digit button on the number keypad for more than 2 seconds.
- For a two- or three-digit speed dial number, press the first digit button(s) and then hold down the last digit button for more than 2 seconds.
- You can print the address book list by selecting (fax) >
   (Address Book) > Print.

### **Editing speed dial numbers**

Select (fax) > (Address Book) > New & Edit > Speed Dial on the control panel.

Or select Setup > Machine Setup > Next > Address Book > Phone Book > View List > Individual on the touch screen.

- 2 Enter the speed dial number you want to edit and press **OK**.
- **?** Change the name and press **OK**.

# Setting up the fax address book

- Change the fax number and press **OK**.
- Press (X) (Cancel or Stop/Clear) to return to ready mode.

#### Registering a group dial number

- Select (fax) > (a) (Address Book) > New & Edit > Group Dial on the control panel.
  - Or select Setup > Machine Setup > Next > Address Book > Phone **Book** > **View List** > **Group**> (options) > **Add** on the touch screen.
- Enter a group dial number and press **OK**.

If an entry is already stored in the number you choose, the display shows the message to allow you to change it. To start over with another speed dial number, press 🖄 (Back).

- Search by entering the first few letters of the speed dial's name to put in the group.
- Select the name and number you want and press **OK**.
- Select **Yes** when **Another Number?** appears.
- Repeat step 3 to include other speed dial numbers into the group.

- When you have finished, select **No** when **Another Number?** appears and press **OK**.
- Press (x) (Cancel or Stop/Clear) to return to ready mode.

#### **Editing group dial numbers**

- Select (fax) > (Address Book) > New & Edit > Group Dial on the control panel.
  - Or select Setup > Machine Setup > Next > Address Book > Phone **Book** > **View List** > **Group** on the touch screen.
- Enter the group dial number you want to edit and press **OK**.
- Enter a new speed dial number to add and press **OK**, then **Add?** appears. Enter a speed dial number stored in the group and press **OK**, **Delete?** appears.
- Press **OK** to add or delete the number.
- Repeat step 3 to add or delete more numbers.
- Select **No** at the **Another Number?** and press **OK**.
- Press (x) (Cancel or Stop/Clear) to return to ready mode.

# Setting up the fax address book

### Searching address book for an entry

There are two ways to search for a number in memory. You can either scan from A to Z sequentially, or you can search by entering the first letters of the name associated with the number.

- Select ct (fax) > (Address Book) > Search&Dial > Speed Dial or Group Dial on the control panel.
- Enter All or ID and press OK.
- Press the name and number or the keypad button labeled with the letter you want to search.
  - For example, if you want to find the name "MOBILE," press the 6 button, which is labeled with "MNO."
- Press (x) (Cancel or Stop/Clear) to return to ready mode.

#### **Printing address book**

You can check your ( (Address Book) settings by printing a list.

- Select ct (fax) > (Address Book) > Print on the control panel.
- The machine begins printing.

# Registering authorized users

If you have connected your machine to a network and set up the network parameters correctly, you can scan and send images over the network. To send a scanned image through email or via network server safely, you must register account information of authorized users to your local machine using SyncThru™ Web Service.

- Access the SyncThru<sup>™</sup> Web Service (see "Using SyncThru<sup>™</sup> Web Service" on page 252).
- 2 Click **Login** on the upper right of the SyncThru<sup>™</sup> Web Service website.
- Type in the **ID** and **Password** then click **Login**.
  - ·ID: admin
  - Password: sec00000
- ✓ Click Security > User Access Control > Authentication.
- Select **Local Authentication** in the **Authentication Method**, and click **Apply**.
- Click **OK** in the confirmation pop-up window.
- Click User Profile > Add.
- Enter User Name, Login ID, Password, Confirm Password, E-mail Address, and Fax Number.



You can easily add individual address if you check **Yes** for **Add individual(s) after this group is created**.

Click **Apply**.



- For basic printing features, refer to the Basic Guide (see "Basic printing" on page 54).
- This feature may not be available depending on model or optional goods (see "Features by models" on page 5).

### **Changing the default print settings**

- Click the Windows Start menu.
- Select Control Panel > Devices and Printers.
- Right-click on your machine.
- Select Printing preferences.



If **Printing preferences** has a ▶, you can select other printer drivers connected to the selected printer.

- Change the settings on each tab.
- Click **OK**.



If you want to change the settings for each print job, change it in **Printing Preferences**.

### Setting your machine as a default machine

- 1 Click the Windows **Start** menu.
- Select Control Panel > Devices and Printers.
- Select your machine.
- Right-click your machine and select Set as Default Printer.



If **Printing preferences** has a ▶, you can select other printer drivers connected to the selected printer.

#### **Using advanced print features**



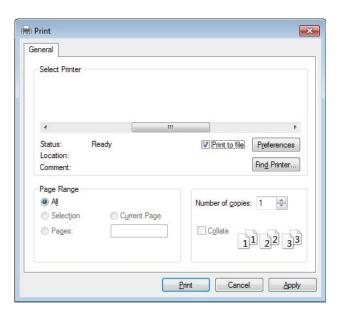
**XPS printer driver**: used to print XPS file format.

- See "Features by models" on page 5.
- The XPS printer driver can be installed only on Windows Vista OS or higher.
- Install optional memory when an XPS job does not print because the printer is out of memory.
- For models that provide XPS driver on the software CD:
  - -You can install the XPS printer driver when you insert the software CD into your CD-ROM drive. When the installation window appears, select Advanced Installation > Custom Installation. You can select the XPS printer driver in the Select Software and Utilities to Install window.
- For models that provide XPS driver from the Samsung website, www.samsung.com > find your product> Support or downloads.

#### **Printing to a file (PRN)**

You will sometimes need to save the print data as a file.

1 Check the **Print to file** box in the **Print** window.



- Click Print.
- Type in the destination path and the file name, and then click **OK**.

  For example, **c:\Temp\file name**.



If you type in only the file name, the file is automatically saved in **My Documents**, **Documents and Settings**, or **Users**. The saved folder may differ, depending on your operating system or the application you are using.

#### **Understanding special printer features**

You can use advanced printing features when using your machine.

To take advantage of the printer features provided by your printer driver, click **Properties** or **Preferences** in the application's **Print** window to change the print settings. The machine name, that appears in the printer properties window may differ depending on the machine in use.



- · Some menus may not appear on the display depending on options or models. If so, it is not applicable to your machine.
- Select the **Help** menu or click the **window** or press **F1** on your keyboard and click on any option you want to know about (see "Using help" on page 57).

Item	Description	
Multiple Pages per Side	Selects the number of pages to print on a single sheet of paper. To print more than one page per sheet, the pages will be reduced in size and arranged in the order you specify. You can print up to 16 pages on one sheet.	
1 2		

ltem	Description
Poster Printing	Prints a single-page document onto 4 (Poster 2x2), 9 (Poster 3x3), or 16 (Poster 4x4) sheets of paper, for the purpose of pasting the sheets together to form one poster-size document.
▲ 3×3	Select the <b>Poster Overlap</b> value. Specify <b>Poster Overlap</b> in millimeters or inches by selecting the radio button on the upper right of <b>Basic</b> tab to make it easier to paste the sheets together.
	Prints your document on both sides of a sheet of paper and arranges the pages so that the paper can be folded in half after printing to produce a booklet.
Booklet Printing <sup>ab</sup>	<ul> <li>If you want to make a booklet, you need to print on Letter, Legal, A4, US Folio, or Oficio sized print media.</li> <li>The Booklet Printing option is not available for all paper sizes. Select the available paper Size option under the Paper tab to see what paper sizes are available.</li> <li>If you select an unavailable paper size, this option can be automatically canceled. Select only available paper (paper without in ark).</li> </ul>
<ul> <li>Double-sided</li> <li>Printing<sup>b</sup></li> </ul>	Print on both sides of a sheet of paper (duplex). Before printing, decide how you want your document oriented.
<ul> <li>Double-sided Printing (Manual)<sup>a</sup></li> </ul>	<ul> <li>You can use this feature with Letter, Legal, A4, US Folio or Oficio sized paper</li> <li>If your machine does not have a duplex unit, you should complete the printing job manually. The machine prints every other page of the document first. After that, a message appears on your computer.</li> </ul>

• Skip Blank Pages feature does not work when you select the duplex option.

ltem	Description
<ul> <li>Double-sided</li> <li>Printing<sup>b</sup></li> </ul>	• <b>Printer Default:</b> If you select this option, this feature is determined by the settings you have selected on the control panel of the machine. This option is available only when you use the PCL/XPS printer driver.
<ul> <li>Double-sided</li> </ul>	None: Disables this feature.
Printing (Manual) <sup>a</sup>	Long Edge: This option is the conventional layout used in bookbinding.
	<ul> <li>Short Edge: This option is the conventional layout used in calendars.</li> </ul>
	• Reverse Double-Sided Printing: Check this option to reverse the print order when duplex printing. This option is not available when you use Double-sided Printing (Manual).
Paper Options	Changes the size of a document to appear larger or smaller on the printed page by entering in a percentage by which to enlarge or decrease the document.
8	
Watermark	The watermark option allows you to print text over an existing document. For example, you use it when you want to have large gray letters reading "DRAFT" or "CONFIDENTIAL" printed diagonally across the first page or all pages of a document.
	printed analysis of a control o

ltem	Description
Watermark (Creating a watermark)	<ul> <li>aTo change the print settings from your software application, access Printing Preferences.</li> <li>bClick the Advanced tab, select Edit from the Watermark drop-down list. The Edit Watermarks window appears.</li> <li>cEnter a text message in the Watermark Message box.</li> <li>You can enter up to 256 characters. The message displays in the preview window.</li> </ul>
Watermark (Editing a watermark)	aTo change the print settings from your software application, access <b>Printing Preferences</b> .  bClick the <b>Advanced</b> tab, select <b>Edit</b> from the <b>Watermark</b> drop-down list. The <b>Edit Watermarks</b> window appears.  cSelect the watermark you want to edit from the <b>Current Watermarks</b> list and change the watermark message and options.  dClick <b>Update</b> to save the changes.  eClick <b>OK</b> or <b>Print</b> until you exit the <b>Print</b> window.
Watermark (Deleting a watermark)	aTo change the print settings from your software application, access <b>Printing Preferences</b> .  bClick the <b>Advanced</b> tab, select <b>Edit</b> from the <b>Watermark</b> drop-down list. The <b>Edit Watermarks</b> window appears.  cSelect the watermark you want to delete from the <b>Current Watermarks</b> list and click <b>Delete</b> .  dClick <b>OK</b> or <b>Print</b> until you exit the <b>Print</b> window.
Overlay <sup>a</sup>	This option is available only when you use the PCL/SPL printer driver (see "Software" on page 5).  An overlay is text and/or images stored in the computer hard disk drive (HDD) as a special file format that can be printed on any document. Overlays are often used to take the place of letterhead paper. Rather than using preprinted letterhead, you can create an overlay containing exactly the same information that is currently on your letterhead. To print a letter with your company's letterhead, you do not need to load preprinted letterhead paper in the machine: just print the letterhead overlay on your document.  To use a page overlay, you must create a new page overlay containing your logo or image.  • The overlay document size must be the same as the document you print with the overlay. Do not create an overlay with a watermark • The resolution of the overlay document must be the same as that of the document you will print with the overlay.

ltem	Description
	aTo save the document as an overlay, access <b>Printing Preferences</b> .
	<b>b</b> Click the <b>Advanced</b> tab, and select <b>Edit</b> from the <b>Text</b> drop-down list. <b>Edit Overlay</b> window appears.
Overlay <sup>a</sup>	cIn the Edit Overlay window, click Create.
(Creating a new page	dIn the <b>Save As</b> window, type a name up to eight characters in the <b>File name</b> box. Select the destination path, if necessary (The default is C:\Formover).
overlay)	eClick Save. The name appears on the Overlay List.
	fClick <b>OK</b> or <b>Print</b> until you exit the <b>Print</b> window.
	The file is not printed. Instead, it is stored on your computer hard disk drive.
	aClick the Advanced tab.
	<b>b</b> Select the desired overlay from the <b>Text</b> drop-down list.
	clf the overlay file you want does not appear in the <b>Text</b> drop-down list, select <b>Edit</b> from the list and click <b>Load</b> . Select the overlay file you want to use.
Overlay <sup>a</sup>	If you have stored the overlay file you want to use in an external source, you can also load the file when you access the <b>Open</b> window.
(Using a page overlay)	After you select the file, click <b>Open</b> . The file appears in the <b>Overlay List</b> box and is available for printing. Select the overlay from the <b>Overlay List</b> box.
	<b>d</b> If necessary, check <b>Confirm Page Overlay When Printing</b> box. If this box is checked, a message window appears each time you submit a document for printing, asking you to confirm printing an overlay on your document.
	If this box is not checked and an overlay has been selected, the overlay automatically prints with your document.
	eClick <b>OK</b> or <b>Print</b> until you exit the <b>Print</b> window.
	aln the Printing Preferences window, click the Advanced tab.
Overlava	<b>b</b> Select <b>Edit</b> in the <b>Text</b> drop down list.
Overlay <sup>a</sup> (Deleting a page	<b>c</b> Select the overlay you want to delete from the <b>Overlay List</b> box.
	dClick Delete.
overlay)	eWhen a confirming message window appears, click Yes.
	fClick OK or Print until you exit the Print window. You can delete page overlays that you no longer use.

Item	Description
	<ul> <li>This feature is available only if you have installed the optional memory or mass storage device (HDD) (see "Variety feature" on page 8).</li> <li>Some menus may not appear on the display depending on options or models. If so, it is not applicable to your machine.</li> </ul>
	<ul> <li>Print Mode: The default Print Mode is Normal, which is for printing without saving the printing file in the memory.</li> <li>Normal: This mode prints without storing your document in the optional memory.</li> </ul>
Print Mode	- <b>Proof:</b> This mode is useful when you print more than one copy. You can print one copy first to check, then print the rest of the copies later <b>Confidential:</b> This mode is used for printing confidential documents. You need to enter a password to print.
	- <b>Store:</b> Select this setting to save a document in the mass storage device (HDD) without printing.
	- Store and Print: This mode is used when printing and storing document at the same time.
	- <b>Spool:</b> This option can be useful when handling large amounts of data. If you select this setting, the printer spools the document into the mass storage device (HDD) and then prints it from the mass storage device (HDD) queue, decreasing the computer's work load.
	- Print Schedule: Select this setting to print the document at a specified time.
	• User ID: This option is used when you need to find a saved file using the control panel.
	• Job Name: This option is used when you need to find a saved file using the control panel.
	Encrypts printing data first, and transmits it to the machine. This feature protects the printing information even though the data is snatched on a network.
Job Encryption	<b>Job Encryption</b> feature is enabled only when the mass storage device (HDD) is installed. The mass storage device (HDD) is used to decrypt the printing data (see "Variety feature" on page 8).

a. This option is not available when you use XPS driver.

b. Not supported SCX-472xFN Series.

#### **Using Direct Printing Utility**



- Direct Printing Utility may not be available depending on model or optional goods (see "Software" on page 5).
- · Available for Windows OS users only.

#### What is Direct Printing Utility?

Direct Printing Utility is a program that sends the PDF files directly to your machine to print without having to opening the file.

To install this program, select **Advanced Installation** > **Custom Installation** and put a check mark in this program when you install the printer driver.



- Mass storage device (HDD) should be installed on your machine, to print files using this program. (see "Variety feature" on page 8).
- You cannot print PDF files that are restricted. Deactivate the printing restriction feature and retry printing.
- You cannot print PDF files that are restricted by a password. Deactivate the password feature, and retry printing.
- Whether or not a PDF file can be printed using the Direct Printing Utility program depends on how the PDF file was created.?
- The Direct Printing Utility program supports PDF version 1.7 and below. For higher versions, you must open the file to print it.

#### **Printing**

There are several ways you can print using the Direct Printing Utility.

- 1 From the Start menu select Programs or All Programs > Samsung Printers > Direct Printing Utility > Direct Printing Utility.
  - The Direct Printing Utility window appears.
- Select your machine from the Select Printer drop-down list and click Browse.
- Select the file you wish to print and click Open.
  The file is added in the Select Files section.
- Customize the machine settings for your needs.
- Click **Print**. The selected PDF file is sent to the machine.

#### Using the right-click menu

- 1 Right-click on the PDF file to print and select **Direct Printing**.
  The Direct Printing Utility window appears with the PDF file is added.
- Select the machine to use.
- Customize the machine settings.

Click Print. The selected PDF file is sent to the machine.

### **Macintosh printing**



Some features may not be available depending on models or options. It means that the features are not supported.

#### **Printing a document**

When you print with a Macintosh, you need to check the printer driver settings in each application you use. Follow the steps below to print from a Macintosh:

- Open the document to print.
- Open the File menu and click Page Setup (Document Setup in some applications).
- Choose your paper size, orientation, scaling, other options, and make sure that your machine is selected. Click **OK**.
- Open the File menu and click Print.
- Choose the number of copies and indicate which pages to print.
- Click Print.

#### **Changing printer settings**

You can use advanced printing features when using your machine.

Open an application and select **Print** from the **File** menu. The machine name, which appears in the printer properties window, may differ depending on the machine in use. Except for the name, the composition of the printer properties window is similar to the following.

#### Printing multiple pages on one sheet

You can print more than one page on a single sheet of paper. This feature provides a cost-effective way to print draft copies.

- 1 Open an application, and select **Print** from the **File** menu.
- Select Layout from the drop-down list under Orientation. In the Pages per Sheet drop-down list, select the number of pages you want to print on one sheet of paper.
- Select the other options to use.
- Click Print.

The machine prints the selected number of pages to print on one sheet of paper.

# Printing on both sides of the paper(Not supported SCX-472xFN Series)



Some features may not be available depending on models or options. It means that the features are not supported (see "Variety feature" on page 8).

Before printing in the duplex mode, decide on which edge you will be binding your finished document. The binding options are, as follows:

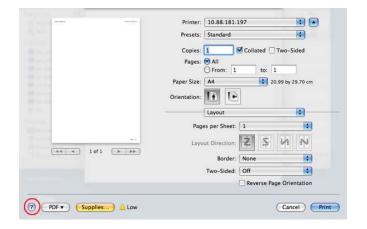
- Long-Edge Binding: This option is the conventional layout used in book binding.
- **Short-Edge Binding:** This option is the type often used with calendars.
  - 1 From your Macintosh application, select **Print** from the **File** menu.
  - Select Layout from the drop-down list under Orientation.
  - Select a binding orientation from the **Two-Sided** option.
  - Select the other options to use.
- Click **Print** and the machine prints on both sides of the paper.



If you print more than 2 copies, the first copy and the second copy might print on the same sheet of paper. Avoid printing on both sides of paper when you are printing more than 1 copy.

#### **Using help**

Click the question mark on the bottom-left corner of the window and click on the topic you want to know about. A pop-up window appears with information about that option's feature, which is provided from the driver.



### **Linux printing**



Some features may not be available depending on models or options. It means that the features are not supported.

#### **Printing from applications**

There are a lot of Linux applications that allow you to print using Common UNIX Printing System (CUPS). You can print on your machine from any such application.

- 1 Open an application, and select **Print** from the **File** menu
- Select **Print** directly using lpr.
- In the LPR GUI window, select the model name of your machine from the printer list and click **Properties**.
- Change the print job properties using the following four tabs displayed at the top of the window.
  - •General: Changes the paper size, the paper type, and the orientation of the documents. It enables the duplex feature, adds start and end banners, and changes the number of pages per sheet.



Automatic/manual duplex printing may not be available depending on models. You can alternatively use the lpr printing system or other applications for odd-even printing.

- •**Text:** Specifies the page margins and set the text options, such as spacing or columns.
- •**Graphics:** Sets image options that are used when printing image files, such as color options, image size, or image position.

- •Advanced: Sets the print resolution, paper source, and destination.
- Click **Apply** to apply the changes and close the **Properties** window.
- Click **OK** in the **LPR GUI** window to start printing.
- The Printing window appears, allowing you to monitor the status of your print job.

To abort the current job, click **Cancel**.

### **Printing files**

You can print many different types of files on your machine using the standard CUPS, directly from the command line interface. The CUPS lpr utility allows you to do that, but the driver's package replaces the standard lpr tool by a much more user-friendly LPR GUI program.

To print any document file:

- 1 Enter lpr <file\_name> from the Linux shell command line and press Enter. The LPR GUI window appears.
  - When you type only lpr and press **Enter**, the **Select file(s) to print** window appears first. Just select any files you want to print and click **Open**.
- In the **LPR GUI** window, select your machine from the list, and change the print job properties.
- **Click OK** to start printing.

### **Configuring Printer Properties**

Using the **Printer Properties** window provided by the **Printers configuration**, you can change the various properties for your machine as a printer.

- Open the Unified Driver Configurator.
  If necessary, switch to Printers configuration.
- Select your machine on the available printers list and click Properties.
- The Printer Properties window appears.

The following five tabs display at the top of the window:

- •General: Allows you to change the printer location and name. The name entered in this tab displays on the printer list in **Printers** configuration.
- •Connection: Allows you to view or select another port. If you change the machine port from USB to parallel or vice versa while in use, you must re-configure the machine port in this tab.
- •**Driver:** Allows you to view or select another machine driver. By clicking **Options**, you can set the default device options.
- •Jobs: Shows the list of print jobs. Click Cancel job to cancel the selected job and select the Show completed jobs check box to see previous jobs on the job list.
- •Classes: Shows the class that your machine is in. Click **Add to Class** to add your machine to a specific class or click **Remove from Class** to remove the machine from the selected class.

Click **OK** to apply the changes and close the **Printer Properties** window.

#### **Unix printing**



Some features may not be available depending on models or options. It means that the features are not supported (see "Features by models" on page 5).

### Proceeding the print job

After installing the printer, choose any of the image, text, PS or HPGL files to print.

Execute "printui <file\_name\_to\_print>" command.

For example, if you are printing "document1"

printui document1

This will open the UNIX Printer Driver **Print Job Manager** in which the user can select various print options.

- Select a printer that has been already added.
- Select the printing options from the window such as **Page Selection**.
- Select how many copies are needed in Number of Copies.



To take advantage of the printer features provided by your printer driver, press **Properties**.



Press **OK** to start the print job.

#### **Changing the machine settings**

The UNIX printer driver **Print Job Manager** in which the user can select various print options in printer **Properties**.

The following hot keys may also be used: "H" for **Help**, "O" for **OK**, "A" for **Apply**, and "C" for **Cancel**.

#### **General tab**

- Paper Size: Set the paper size as A4, Letter, or other paper sizes, according
  to your requirements.
- **Paper Type:** Choose the type of the paper. Options available in the list box are **Printer Default**, **Plain**, and **Thick**.
- Paper Source: Select from which tray the paper is used. By default, it is Auto
   Selection.
- **Orientation:** Select the direction in which information is printed on a page.
- **Duplex:** Print on both sides of paper to save paper(Not supported SCX-472xFN Series).



Automatic/manual duplex printing may not be available depending on models. You can alternatively use the lpr printing system or other applications for odd-even printing.

- **Multiple pages:** Print several pages on one side of the paper.
- Page Border: Choose any of the border styles (e.g., Single-line hairline,
   Double-line hairline)

#### **Image tab**

In this tab, you can change the brightness, resolution, or image position of your document.

#### **Text tab**

Set the character margin, line space, or the columns of the actual print output.

#### **HPGL/2** tab

- Use only black pen: To print all graphics in black.
- **Fit plot to page:** Fit the entire graphic into a single page.

# **Printing features**

#### **Margins tab**

- **Use Margins:** Set the margins for the document. By default, margins are not enabled. The user can change the margin settings by changing the values in the respective fields. Set by default, these values depend on the page size selected.
- **Unit:** Change the units to points, inches, or centimeters.

#### **Printer-Specific Settings tab**

Select various options in the **JCL** and **General** frames to customize various settings. These options are specific to the printer and depend on the PPD file.



- For basic scanning features, refer to the Basic Guide (see "Basic scanning" on page 64).
- This feature may not be available depending on model or optional goods (see "Features by models" on page 5).
- The maximum resolution that can be achieved depends upon various factors, including computer speed, available disk space, memory, the size of the image being scanned, and bit depth settings. Thus, depending on your system and what you are scanning, you may not be able to scan at certain resolutions, especially using enhanced dpi.

#### **Basic scanning method**



This feature may not be available depending on model or optional goods (see "Variety feature" on page 8).

You can scan the originals with your machine via an USB cable or the network. The following methodologies can be used for scanning your documents:

- **Scan to PC:** Scan the originals from the control panel. Then, the scanned data will be stored in the connected computers **My Documents** folder (see "Basic Scanning" on page 64).
- TWAIN: TWAIN is the one of a preset imaging applications. Scanning an
  image launches the selected application, enabling you to control the
  scanning process. This feature can be used via the local connection or the
  network connection (see "Scanning from image editing program" on page
  228).
- Samsung Scan Assistant/SmarThru 4/SmarThru Office: You can use this program to scan images or documents.
  - -See "Scanning with Samsung Scan Assistant" on page 229.
  - -See "Scanning with SmarThru 4" on page 230
  - -See "Scanning with SmarThru Office" on page 230
- WIA: WIA stands for Windows Images Acquisition. To use this feature, your computer must be connected directly with the machine via an USB cable (see "Scanning using the WIA driver" on page 229).
- **USB Memory:** You can scan a document and save the scanned image onto an USB memory device.
- **Email:** You can send the scanned image as an email attachment (See "Scanning to email" on page 226).
- **FTP/SMB:** You can scan an image and upload it to an FTP/SMB server (see "Scanning to FTP/SMB server" on page 227).

#### Setting the scan settings in the computer



This feature may not be available depending on model or optional goods (see "Features by models" on page 5).

- Open **Samsung Easy Printer Manager** (see "Using Samsung Easy Printer Manager" on page 255).
- Select the appropriate machine from the Printer List.
- Select Scan to PC Settings menu.
- Select the option you want.
  - •Scan Activation: Determines whether or not scanning is enabled on the device.
  - •Profile: Displays the scanning profiles saved on the selected device.
  - •Basic tab: Contains settings related to general scan and device settings.
  - •Image tab: Contains settings related to image altering.
- Press OK.

#### **Scanning from network connected machine**

Make sure the printer driver is installed on your computer using the software CD, since the printer driver includes the scan program (see "Installing the driver locally" on page 27).

- Place a single document face down on the document glass, or load the documents face up into the document feeder (see "Loading originals" on page 51).
- 2 Select (Scan) > Scan to PC > Network PC on the control panel.

  Or select Scan > Network PC on the touch screen.



If you see Not Available message, check the port connection.

3 Select your registered computer **ID**, and enter the **Password** if necessary.



- ID is the same ID as the registered scan ID for Samsung Easy Printer

  Manager > Switch to advanced mode > Scan to PC Settings.
- Password is the 4 digit number registered password for Samsung Easy
   Printer Manager > Switch to advanced mode > Scan to PC
   Settings.
- Select the option you want and press OK.
- Scanning begins.



Scanned image is saved in computer's **C:\Users\users name\Pictures\folder**. The saved folder may differ, depending on your operating system or the application you are using.

#### Scanning to email



This feature may not be available depending on model or optional goods (see "Features by models" on page 5).

#### Setting up an email account

- 1 Access the SyncThru™ Web Service (see "Using SyncThru™ Web Service" on page 252).
- Select Settings > Network Settings and Outgoing Mail Server(SMTP).
- **2** Enter the IP address in dotted decimal notation or as a host name.
- Enter the server port number, from 1 to 65535.
- 5 Check the box next to **SMTP Requires Authentication** to require authentication.
- Enter the SMTP server login name and password.
- 7 Press Apply.



- If the authentication method of SMTP server is POP3 before SMTP, put a check mark of **SMTP Requires POP Before SMTP Authentication**.
- Enter the IP address and port number.

#### Scanning and sending an email

- 1 Place a single document face down on the document glass, or load the documents face up into the document feeder (see "Loading originals" on page 51).
- 2 Select (scan) > Scan to Email on the control panel.

Or select **Scan** > **Send Email** on the touch screen.

- Enter the login name and password if you configured on SyncThru™ Web Service (see "Using SyncThru™ Web Service" on page 252).
- Enter the sender's and recipient's email address.



You can send an email to yourself by activating the **Auto Send To Self** option in the **Settings** > **Scan** > **Scan To E-mail** on SyncThru<sup>TM</sup> Web Service.

- Enter an email subject and press **OK**.
- Select the file format to scan, and press OK.
- 7 Enter the SMTP server login name and password.
- The machine begins scanning and then sends the email.

#### **Scanning to FTP/SMB server**



This feature may not be available depending on model or optional goods (see "Features by models" on page 5).

#### Setting up an FTP/SMB server

- Access the SyncThru™ Web Service (see "Using SyncThru™ Web Service" on page 252).
- Select Address Book > Individual > Add.
- Check the box next to Add FTP or Add SMB.
- Enter the IP address in dotted decimal notation or as a host name.
- Enter the server port number, from 1 to 65535.
- 6 Check the box next to **Anonymous**, then the server permits the access of unauthorized people.
- 7 Enter the login name and password.
- Enter the domain name if your server is joined to the certain domain, otherwise just enter your computer name which is registered to the SMB server.

Enter the path for saving the scanned image.



- The folder to save the scanned image must be on the root.
- The folder properties need to be setup as a share.
- Your user name should have the rights to read and write the folder.

10 Press Apply.

#### Scanning and sending to FTP/SMB server

- 1 Make sure that your machine is connected to a network.
- Place a single document face down on the document glass, or load the documents face up into the document feeder (see "Loading originals" on page 51).
- Select (scan) > Scan to SMB or Scan to FTP on the control panel.

  Or select Scan > SMB or FTP on the touch screen.
- Select a server and scan format you want.
- The machine begins scanning and then sends the scanned image to the specified server.

#### Scanning from image editing program

You can scan and import documents at the image editing software such as Adobe Photoshop, if the software is TWAIN-compliant. Follow the steps below to scan with TWAIN-compliant software:

- 1 Make sure that the machine is connected to your computer and powered on.
- Place a single document face down on the document glass, or load the documents face up into the document feeder (see "Loading originals" on page 51).
- Open an application, such as Adobe Photoshop.
- Click File > Import, and select the scanner device.
- Set the scan options.
- Scan and save your scanned image.

#### **Scanning using the WIA driver**

Your machine supports the Windows Image Acquisition (WIA) driver for scanning images. WIA is one of the standard components provided by Microsoft Windows 7 and works with digital cameras and scanners. Unlike the TWAIN driver, the WIA driver allows you to scan and easily adjust images without using additional software:



The WIA driver works only on Windows OS (not supported Windows 2000) with a USB port.

- Make sure that the machine is connected to your computer and powered on.
- Place a single document face down on the document glass, or load the documents face up into the document feeder (see "Loading originals" on page 51).
- 3 Click Start > Control Panel > Hardware and Sound > Devices and Printers.
- Right-click on device driver icon in **Printers and Faxes** > **Start Scan**.
- **New Scan** application appears.

- 6 Choose your scanning preferences and click **Preview** to see your preferences affect the picture.
- Scan and save your scanned image.

#### **Scanning with Samsung Scan Assistant**



- This feature may not be available depending on model or optional goods (see "Features by models" on page 5).
- You can use the OCR (Optical Character Reader) feature from Samsung Scan Assistant program.
- Make sure that the machine is connected to your computer and powered on.
- Place a single document face down on the document glass, or load the documents face up into the document feeder (see "Loading originals" on page 51).
- Click Start > All programs > Samsung Printers, and start Samsung Scan Assistant.



Select the **Help** menu or click the **window** and click on any option you want to know about.

- Set the scan options.
- Click **Scan**.

#### **Scanning with SmarThru 4**



- This feature may not be available depending on model or optional goods (see "Features by models" on page 5).
- You can use the OCR (Optical Character Reader) feature from SmarThru 4 program.
- Make sure that the machine is connected to your computer and powered on.
- Place a single document face down on the document glass, or load the documents face up into the document feeder (see "Loading originals" on page 51).
- Double-click the SmarThru 4 icon.
- The SmarThru appears.
  - •Scan to: You can scan an image and save it to an application or folder, email it, or publish it on a web site.
  - •Image: You can edit an image and send it to a selected application or folder, email it, or publish it on a web site.

•Print: You can print images you have saved.



Select the **Help** menu or click the **window** and click on any option you want to know about.

- Click Scan to.
- Select destination among **Application**, **E-mail**, **Folder**, **OCR**, or **Web**.
- 7 If needed, click **Settings** to customize the settings.
- Click Scan.

#### Scanning with SmarThru Office



- This feature may not be available depending on model or optional goods (see "Features by models" on page 5).
- To use SmarThru Office, you have to install the program manually from the supplied CD. Select **Advanced Installation** > **Custom Installation** and choose SmarThru Office to install.
- You can use the OCR (Optical Character Reader) feature from SmarThru
  Office program.

- Make sure that the machine is connected to your computer and powered on.
- Place a single document face down on the document glass, or load the documents face up into the document feeder (see "Loading originals" on page 51).
- Double-click the SmarThru Office icon.
- The SmarThru Office appears.

Click the **Help** or button from the window and click on any option you want to know about.

- Click the **SmarThru Office** icon ( in the tray area of the Windows taskbar to activate the **SmarThru Office** launcher.
- 6 Click the scanning icon ( ) to open the scanning window.
- 7 The **Scan Setting** window opens.
- Set scan settings and click **Scan**.

#### **Macintosh scanning**

#### Scanning from USB connected machine

- Make sure that the machine is connected to your computer and powered on.
- Place a single document face down on the document glass, or load the documents face up into the document feeder (see "Loading originals" on page 51).
- Start Applications and click Image Capture.



If **No Image Capture device connected** message appears, disconnect the USB cable and reconnect it. If the problem continues, refer to the **Image Capture**'s help.

- Select the option you want.
- Scan and save your scanned image.



If scanning does not operate in **Image Capture**, update Mac OS to the latest version. **Image Capture** operates properly in Mac OS X 10.4.7 or higher.

#### Scanning from network connected machine



Network or wireless model only (see "Features by models" on page 5).

- 1 Make sure that your machine is connected to a network.
- Place a single document face down on the document glass, or load the documents face up into the document feeder (see "Loading originals" on page 51).
- Start **Applications** and click **Image Capture**.
- According to OS, follow steps below.
  - •For 10.4
    - -Click **Devices** > **Browse Devices** on Menu bar.
    - -Select your machine in Twain devices option. Make sure that **Use TWAIN software** checkbox is checked.
    - -Click Connect.

If a warning message appears, click **Change Port..** to select port, or If TWAIN UI appears, click **Change Port..** from the **Preference** tab and select a new port.

- •For 10.5
  - -Click **Devices** > **Browse Devices** on Menu bar.
  - -Make sure that **Connected** checkbox is checked beside your machine in **Bonjour Devices**.

- -If you want to scan using TWAIN, refer to the Mac OS X10.4 steps above.
- •For 10.7, select your device below **SHARED**.
- Set the scan options on this program.
- Scan and save your scanned image.



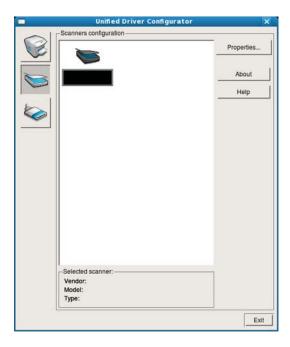
- If scanning does not operate in Image Capture, update Mac OS to the latest version. Image Capture operates properly Mac OS X 10.4.7 or higher.
- For more information, refer to the **Image Capture**'s help.
- You can also scan using TWAIN-compliant software, such as Adobe Photoshop.

#### **Linux scanning**

#### **Scanning**

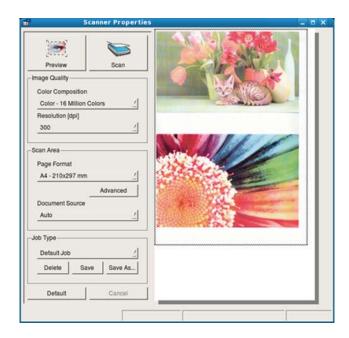
- 1 Make sure that the machine is connected to your computer and powered on.
- **Double-click the Unified Driver Configurator** on your desktop.
- Click the 运 button to switch to Scanners Configuration.

Select the scanner on the list.



- Click Properties.
- Place a single document face down on the document glass, or load the documents face up into the document feeder (see "Loading originals" on page 51).
- 7 From the **Scanner Properties** window, click **Preview**.

The document is scanned and the image preview appears in the **Preview Pane**.



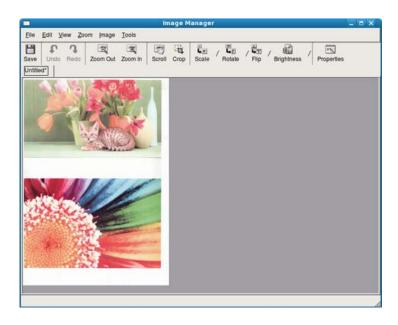
- Orag the pointer to set the image area to be scanned in the Preview Pane.
- 10 Select the option you want.
- 11 Scan and save your scanned image.



For later use, you can save as your scan settings and add it to the **Job Type** drop-down list.

#### **Editing an image with Image Manager**

The Image Manager application provides you with menu commands and tools to edit your scanned image.





- For basic faxing features, refer to the Basic Guide (see "Basic faxing" on page 65).
- This function is not supported for SCX-470x Series (see "Features by models" on page 5).

#### **Automatic redialing**

When the number you have dialed is busy or there is no answer when you send a fax, the machine automatically redials the number. The redial time depends on the country's factory default setting.

When the display shows **Retry Redial?**, press (Start) button to redial the number without waiting. To cancel the automatic redialing, press (Cancel or Stop/Clear).

To change the time interval between redials and the number of redial attempts.

- 1 Press (fax) > (Menu) > Fax Setup > Sending on the control panel.
- Select Redial Times or Redial Term you want.
- Select the option you want.

#### Redialing the fax number

- 1 Press (a) (**Redial/Pause**) button on the control panel.
- Select the fax number you want.
  Ten recently sent fax numbers with ten received Caller IDs are shown.
- When an original is loaded in the document feeder, the machine automatically begins to send.

If an original is placed on the scanner glass, select **Yes** to add another page. Load another original and press **OK**. When you have finished, select **No** when **Another Page?** appears.

#### **Confirming a transmission**

When the last page of your original has been sent successfully, the machine beeps and returns to ready mode.

When something goes wrong while sending your fax, an error message appears on the display. If you receive an error message, press (Cancel or Stop/Clear) to clear the message and try to send the fax again.



You can set your machine to print a confirmation report automatically each time sending a fax is completed. Press  $(fax) > \frac{1}{x} (Menu) > Fax Setup > Sending > Send Report on the control panel.$ 

#### Sending a fax in the computer



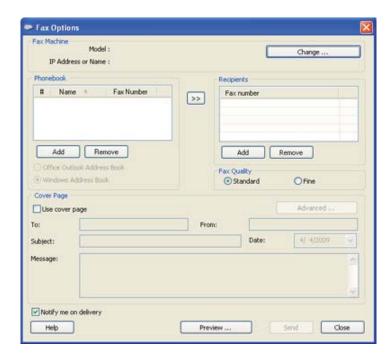
This feature may not be available depending on model or optional goods (see "Features by models" on page 5).

You can send a fax from your computer without going to the machine.

To send a fax from your computer, the **Samsung Network PC Fax** program must be installed. This program will be installed when you installed the printer driver.

- Open the document to be sent.
- Select Print from the File menu.
  The Print window will be displayed. It may look slightly different depending on your application.
- Select Samsung Network PC Fax from the Print window

- Click Print or OK.
- Enter the recipients' numbers and select the option





Select the **Help** menu or click the button from the window and click on any option you want to know about.

6 Click **Send**.

#### **Delaying a fax transmission**

You can set your machine to send a fax at a later time when you will not be present. You cannot send a color fax using this feature.

- Place a single document face down on the document glass, or load the documents face up into the document feeder.
- Press (fax) on the control panel.
- Adjust the resolution and the darkness to suit your fax needs.
- Press [1] (Menu) > Fax Feature > Delay Send on the control panel. Or select **Fax** > **Delayed Send** > **To** on the touch screen.
- Enter the number of the receiving fax machine and press **OK**.
- The display asks you to enter another fax number to send the document.
- To enter more fax numbers, press **OK** when **Yes** highlights and repeat steps 5.



- You can add up to 10 destinations.
- Once you entered a group dial number, you cannot enter another group dial numbers anymore.

Enter the job name and the time.



If you set a time earlier than the current time, the fax will be sent at that time on the following day.

The original is scanned into memory before transmission. The machine returns to ready mode. The display reminds you that you are in ready mode and that a delayed fax is set.



You can check the list of delayed fax jobs.

Press (Menu) > System Setup > Report > Schdule Jobs on the control panel.

#### Adding documents to a reserved fax

- Place a single document face down on the document glass, or load the documents face up into the document feeder.
- Press (fax) > (Menu) > Fax Feature > Add Pages on the control panel.
- Select the fax job and press **OK**.

When you have finished, select **No** when **Another Page?** appears. The machine scans the original into memory.

Press (Cancel or Stop/Clear) to return to ready mode.

#### Canceling a reserved fax job

- 1 Press (fax) > (Menu) > Fax Feature > Cancel Job on the control panel.
- Select the fax job you want and press OK.
- Press **OK** when **Yes** highlights.
  The selected fax is deleted from memory.
- Press (Stop/Clear) to return to ready mode.

#### Sending a priority fax

This function is used when a high priority fax need to be sent ahead of reserved operations. The original is scanned into memory and immediately transmitted when the current operation is finished.

- 1 Place a single document face down on the document glass, or load the documents face up into the document feeder.
- Press (Fax) > (Menu) > Fax Feature > Priority Send on the control panel.

Or select **Fax** > **Priority Send** > **To** on the touch screen.

- **2** Enter the destination fax number and press **OK**.
- Enter the job name and press OK.
- If an original is placed on the scanner glass, select **Yes** to add another pages. Load another original and press **OK**.

When you have finished, select **No** when **Another Page?** appears.

The machine starts to scan and send a fax to destinations.

#### Forwarding a sent fax to another destination

You can set the machine to forward the received or sent fax to other destination by a fax, an email or a server. If you are out of office but have to receive the fax, this feature may be useful.



- When you forward a fax by an email, you must first set the mail server and IP address in SyncThru™ Web Service (see "Using SyncThru™ Web Service" on page 252).
- Though you sent or received a color fax, the data is forwarded in grayscale.
- Place a single document face down on the document glass, or load the documents face up into the document feeder.
- Press (fax) > [ (Menu) > Fax Feature > Forward > Fax > Send Forward > On on the control panel.

Or select Setup > Machine Setup > Fax Setup > Forward > Fax, Email, or Server > Send Forward > On on the touch screen.



**Forward** options may not be available depending on model or optional goods (see "Variety feature" on page 8).

- Enter the destination fax number, email address, or server address and press **OK**.
- Press (Cancel or Stop/Clear) to return to ready mode.

  Subsequent sent faxes will be forwarded to the specified fax machine.

#### Forwarding a received fax

You can set the machine to forward the received or sent fax to other destination by a fax, an email or a server. If you are out of office but have to receive the fax, this feature may be useful.



Though you sent or received a color fax, the data is forwarded in grayscale.

- Press (fax) > (Menu) > Fax Feature > Forward > Fax, Email, or Server > Receive Forward > Forward on the control panel.
  - Or select **Setup** > **Machine Setup** > **Fax Setup** > **Forward** > **Fax, Email**, or **Server** > **Receive Forward** > **On** on the touch screen.



**Forward** options may not be available depending on model or optional goods (see "Variety feature" on page 8).

- To set the machine to print out a fax when fax forwarding has been completed, select **Forward & Print**.
- Enter the destination fax number, email address, or server address and press **OK**.
- **I** Enter the starting tim and ending time, then press **OK**.

Press (Cancel or Stop/Clear) to return to ready mode.

Subsequent sent faxes will be forwarded to the specified fax machine.

#### Sending faxes on both sides of paper



- This is available only when you load originals into the document feeder.
- Some menus may not appear on the display depending on options or models. If so, it is not applicable to your machine.
- This feature may not be available depending on model or optional goods (see "Features by models" on page 5).
- 1 Place a single document face down on the document glass, or load the documents face up into the document feeder.
- Press (fax) > **Duplex** on the control panel.

Or select **Fax** > Select the menu you want > Select **Duplex** from the submenus > on the touch screen.

- •Off: Send faxes in normal mode.
- •2 Side: Send faxes on both sides of the original.
- •2->1Side ROT2: Send faxes on both sides of the original and prints each one on a separate sheet, but the information on the back side of the printout is rotated 180°.

Press OK.

#### Receiving a fax in the computer



- This feature may not be available depending on model or optional goods (see "Features by models" on page 5).
- To use this feature, set the option on the control panel:

Press  $(fax) > \frac{1}{\sqrt{2}} (Menu) > Fax Feature > Forward > PC > On the control panel.$ 

Or select **Setup** > **Machine Setup** > **Next** > **Fax Setup** > **Forward** > **PC** > **On** on the touch screen.

- Open the Samsung Easy Printer Manager.
- Select the appropriate machine from the Printer List.
- Select Fax to PC Settings menu.
- Use Set Fax Receiving to change the fax settings.
  - •Enable Fax Receiving From Device: Select whether to use or not.
  - •Image Type: Convert the received faxes to PDF or TIFF.
  - •Save Location: Select location to save the converted faxes.
  - •Prefix: Select file or folder scheme as prefix.

- •**Print received fax:** After receiving the fax, set prints information for the received fax.
- •Notify me when complete: Set to show the popup window to notify receiving a fax.
- •Open with default application: After receiving the fax, open it with default application.
- •None: After receiving a fax, the machine does not notify the user or opens the application.
- Press OK.

#### **Changing the receive modes**

1 Press (fax) > (Menu) > Fax Setup > Receiving > Receive Mode on the control panel.

Or select **Setup** > **Machine Setup** > **Next** > **Default Setting** > **Fax Default** > **Common** > **Receive Mode** on the touch screen.

- Select the option you want.
  - •Fax: Answers an incoming fax call and immediately goes into the fax reception mode.
  - •Tel: Receives a fax by pressing (On Hook Dial) and then Start.

•Ans/Fax: Is for when an answering machine attached to your machine. Your machine answers an incoming call, and the caller can leave a message on the answering machine. If the fax machine senses a fax tone on the line, the machine automatically switches to Fax mode to receive the fax.



To use the **Ans/Fax** mode, attach an answering machine to the EXT socket on the back of your machine.

•DRPD: you can receive a call using the Distinctive Ring Pattern Detection (DRPD) feature. Distinctive Ring is a telephone company service which enables an user to use a single telephone line to answer several different telephone numbers. For further details, see "Receiving faxes using DRPD mode" on page 242.



This setting may not be available depending on your country.

- Press **OK**.
- Press (x) (Cancel or Stop/Clear) to return to ready mode.

#### Receiving manually in Tel mode

You can receive a fax call by pressing (On Hook Dial) button and then pressing (Start) when you hear a fax tone. If your machine has a handset, you can answer calls using the handset (see "Features by models" on page 5).

#### Receiving in Answering Machine/Fax mode

To use this mode, you must attach an answering machine to the EXT socket on the back of your machine. If the caller leaves a message, the answering machine stores the message. If your machine detects a fax tone on the line, it automatically starts to receive the fax.



- If you have set your machine to this mode and your answering machine is switched off, or no answering machine is connected to EXT socket, your machine automatically goes into Fax mode after a predefined number of rings.
- If the answering machine has a user-selectable ring counter, set the machine to answer incoming calls within 1 ring.
- If the machine is in Tel mode, disconnect or switch off the answering machine with the fax machine. Otherwise, the outgoing message from the answering machine will interrupt your phone conversation.

#### Receiving faxes with an extension telephone

When you are using an extension telephone connected to the EXT socket, you can receive a fax from someone you are talking to on the extension telephone, without going to the fax machine.

When you receive a call on the extension phone and hear fax tones, press the keys \*9\* on the extension phone. The machine receives the fax.

\*9\* is the remote receive code preset at the factory. The first and the last asterisks are fixed, but you can change the middle number to whatever you want.



While you are talking over the telephone connected to the EXT socket, copy and scan features are not available.

#### **Receiving faxes using DRPD mode**

Distinctive Ring is a telephone company service which enables an user to use a single telephone line to answer several different telephone numbers. This feature is often used by answering services who answer telephones for many different clients and need to know which number someone is calling in on to properly answer the phone.

1 Select (fax) > (Menu) > Fax Setup > Receiving > DRPD Mode > Waiting Ring on the control panel.

Or select Setup > Machine Setup > Next > Default Setting > Fax Default > Common > Receive Mode > DRPD on the touch screen.

- Call your fax number from another telephone.
- When your machine begins to ring, do not answer the call. The machine requires several rings to learn the pattern.

When the machine completes learning, the display shows **Completed DRPD Setup**. If the DRPD setup fails, **Error DRPD Ring** appears.

4 Press **OK** when DRPD appears and start over from step 2.



- DRPD must be set up again if you re-assign your fax number, or connect the machine to another telephone line.
- After DRPD has been set up, call your fax number again to verify that the
  machine answers with a fax tone. Then have a call placed to a different
  number assigned to that same line to be sure the call is forwarded to the
  extension telephone or answering machine plugged into the EXT socket.

#### Receiving in secure receiving mode



This feature may not be available depending on model or optional goods (see "Features by models" on page 5).

You may need to prevent your received faxes from being accessed by unauthorized people. Turn on secure receiving mode, then all incoming faxes go into memory. You can print the incoming faxes with entering the password.



To use the secure receiving mode, activate the menu from (fax) > (Menu) > Fax Feature > Secure Receive on the control panel.

Or select **Setup** > **Machine Setup** > **Next** > **Fax Setup** > **Secure Receive** on the touch screen.

#### **Printing received faxes**

1 Select (fax) > 1 (Menu) > Fax Feature > Secure Receive > Print on the control panel.

Or select **Setup** > **Machine Setup** > **Next** > **Fax Setup** > **Secure Receive** > **Print** on the touch screen.

Enter a four-digit password and press OK.

The machine prints all of the faxes stored in memory.

#### Printing faxes on both sides of the paper



- Some menus may not appear on the display depending on options or models. If so, it is not applicable to your machine.
- This feature may not be available depending on model or optional goods (see "Features by models" on page 5).
- 1 Place a single document face down on the document glass, or load the documents face up into the document feeder.
- Press  $(fax) > \frac{1}{\sqrt{2}}$  (Menu) > Fax Setup > Receiving > Duplex Print on the control panel.
  - •Off: Prints in Normal mode.
  - •Long Edge: Prints pages to be read like a book.



•Short Edge: Prints pages to be read by flipping like a note pad.



- ? Press **OK**.
- 4 Press (Cancel or Stop/Clear) to return to ready mode.

#### Receiving faxes in memory

Since your machine is a multi-tasking device, it can receive faxes while you are making copies or printing. If you receive a fax while you are copying or printing, your machine stores incoming faxes in its memory. Then, as soon as you finish copying or printing, the machine automatically prints the fax.



If fax is received and being printed, other copy and print jobs cannot be processed at the same time.

#### Printing sent fax report automatically

You can set the machine to print a report with detailed information about the previous 50 communication operations, including time and dates.

- Press (fax) > (Menu) > Fax Setup > Auto Report > On on the control panel.
- Press (x) (Cancel or Stop/Clear) to return to ready mode.

## Using shared folder features

This feature allows you to use the machine's memory as a shared folder. The advantage of this feature is that you can conveniently use the shared folder through your computer's window.



- This feature may not be available depending on model or optional goods (see "Features by models" on page 5).
- You can use this feature in the models that have a mass storage device (see "Variety feature" on page 8).
- The administrator can set the ID and password to restrict the user's access and also set the maximum number of simultaneous users.

#### **Creating a shared folder**

- Open the Windows Explore window from the computer.
- Enter the printer's \\[ip address] (example: \\169.254.133.42) in the address field, and press the Enter key or click Go.
- Create a new folder under **nfsroot** directory.

#### Using the shared folder

You can use the shared folder in the same way exactly like the normal computer. Create, edit and delete the folder or file as a normal Windows folder. You also store the scanned data in the shared folder. You can directly print files stored on a the shared folder. You can print TIFF, BMP, JPEG and PRN files.

# Using memory/hard drive features



You can use this feature in the models that have a mass storage device (HDD) or memory (see "Variety feature" on page 8).

#### Setting up the optional memory

#### From the printer driver

After installing the optional memory, you can use advanced printing features, such as proofing a job and specifying of printing a private job in the **Print** window. Select **Properties** or **Preference**, and configure the printing mode.

#### From the control panel

If your machine has optional memory or an optional hard drive, you can use these features from the [10] (Menu) button> System Setup > Job Management.

- **Active Job:** All of the print jobs waiting to be printed are listed in the active job queue in the order you sent them to the printer. You can delete a job from the queue before printing, or promote a job to print sooner.
- **File Policy:** You can choose the file policy for generating file name before you proceed with the job through optional memory. If the optional memory already has the same name when you entered a new file name, you can rename or overwrite it.
- Stored Job: You can print or delete a stored job.



- Some menus may not appear on the display depending on options or models. If so, it is not applicable to your machine.
- After installing the hard drive, you can also print the predefined document templates from the (Menu) button > System Setup > Form Menu.



# 5. Useful Management Tools

This chapter introduces management tools provided to help you make full use of your machine.

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# **Easy Capture Manager**



- This feature may not be available depending on model or optional goods (see "Software" on page 5).
- Available for Windows OS users only (see "Software" on page 5).

Capture your screen and launch Easy Capture Manager by simply pressing the Print Screen key. Now you can easily print your captured screen as captured or edited.

# Samsung AnyWeb Print



- This feature may not be available depending on model or optional goods (see "Software" on page 5).
- Available for Windows and Macintosh OS users only (see "Software" on page 5).

This tool helps you screen-capture, preview, scrap, and print Windows Internet Explorer pages more easily, than when you use an ordinary program. Click **Start** > **All programs** > **Samsung Printers** > **Samsung AnyWeb Print** > **Download the latest version** to link to the website where the tool is available for download.

# **Easy Eco Driver**



- This feature may not be available depending on model or optional goods (see "Software" on page 5).
- Available for Windows OS users only (see "Software" on page 5).

With the Easy Eco Driver, you can apply Eco features to save paper and toner before printing. To use this application, **Start Easy Eco Driver before printing job** checkbox in the printer properties should be checked.

Easy Eco Driver also allows you simple editing such as removing images and texts, changing fonts, and more. You can save frequently used settings as a preset.

#### How to use:

- 1 Open a document to print.
- **2** Print the document.
  - A preview window appears.
- **3** Select the options you want to apply to the document.
  - You can see the preview of the applied features.
- 4 Click Print.

# **Using SyncThru™ Web Service**



- Internet Explorer 6.0 or higher is the minimum requirement for SyncThru™ Web Service.
- SyncThru<sup>™</sup> Web Service explanation in this user's guide may differ from your machine depending on its options or models.
- Network model only (see "Software" on page 5).

#### **Accessing SyncThru™ Web Service**

- Access a web browser, such as Internet Explorer, from Windows.

  Enter the machine IP address of your printer (http://xxx.xxx.xxx.xxx) in the address field and press the Enter key or click **Go**.
- 7 Your machine's embedded website opens.

#### **Logging into SyncThru™ Web Service**

Before configuring options in SyncThru<sup>™</sup> Web Service, you need to log-in as an administrator. You can still use SyncThru<sup>™</sup> Web Service without logging in but you won't have access to **Settings** tab and **Security** tab.

- Click Login on the upper right of the SyncThru™ Web Service website.
- Type in the **ID** and **Password** then click **Login**.
  - ·ID: admin
  - Password: sec00000

#### SyncThru™ Web Service overview





Some tabs may not appear depending on your model.

#### Information tab

This tab gives you general information about your machine. You can check things, such as remaining amount of toner. You can also print reports, such as an error report.

- Active Alerts: Shows the alerts that have occurred in the machine and their severity.
- **Supplies:** Shows how many pages are printed and amount of toner left in the cartridge.

# **Using SyncThru™ Web Service**

- Usage Counters: Shows the usage count by print types: simplex and duplex.
- **Current Settings:** Shows the machine's and network's information.
- **Print information:** Prints reports such as system related reports, e-mail address, and font reports.

#### **Settings tab**

This tab allows you to set configurations provided by your machine and network. You need to log-in as an administrator to view this tab.

- Machine Settings tab: Sets options provided by your machine.
- **Network Settings** tab: Shows options for the network environment. Sets options such as TCP/IP and network protocols.

#### **Security tab**

This tab allows you to set system and network security information. You need to log-in as an administrator to view this tab.

- **System Security:** Sets the system administrator's information and also enables or disables machine features.
- Network Security: Sets settings for HTTPs, IPSec, IPv4/IPv6 filtering, 802.1x, and Authentication servers.

**User Access Control:** Classifies users into several groups according to each user's role. Each user's authorization, authentication and accounting will be controlled by the group's role definition.

#### Maintenance tab

This tab allows you to maintain your machine by upgrading firmware and setting contact information for sending emails. You can also connect to Samsung website or download drivers by selecting the **Link** menu.

- Firmware Upgrade: Upgrade your machine's firmware.
- **Contact Information:** Shows the contact information.
- **Link:** Shows links to useful sites where you can download or check information.

#### **E-mail notification setup**

You can receive emails about your machine's status by setting this option. By setting information such as IP address, host name, e-mail address and SMTP server information, the machine status (toner cartridge shortage or machine error) will be sent to a certain person's e-mail automatically. This option may be used more frequently by a machine administrator.

# **Using SyncThru™ Web Service**

- 1 Start a web browser, such as Internet Explorer, from Windows.

  Enter the machine IP address (http://xxx.xxx.xxx.xxx) in the address field and press the Enter key or click **Go**.
- Your machine's embedded website opens.
- **3** From the **Settings** tab, select **Machine Settings** > **E-mail Notification**.



If you have not configured outgoing server environment, go to **Settings** > **Network Settings** > **Outgoing Mail Server(SMTP)** to configure network environment before setting e-mail notification.

- Select Enable check box to use the E-mail Notification.
- 5 Click **Add** button to add e-mail notification user.
  Set the recipient name and e-mail address(es) with notification items you want to receive an alert for.
- 6 Click Apply.



If the firewall is activated, the e-mail may not be sent successfully. In that case, contact the a network administrator.

#### Setting the system administrator's information

This setting is necessary for using the e-mail notification option.

- Start a web browser, such as Internet Explorer, from Windows.

  Enter the machine IP address (http://xxx.xxx.xxx) in the address field and press the Enter key or click **Go**.
- Your machine's embedded website opens.
- From the Security tab, select System Security > System Administrator
- 4 Enter the name of the administrator, phone number, location, and email address.
- Click Apply.

# **Using Samsung Easy Printer Manager**



- This feature may not be available depending on model or optional goods (see "Software" on page 5).
- Available for Windows and Macintosh OS users only (see "Software" on page 5).
- For Windows, Internet Explorer 6.0 or higher is the minimum requirement for Samsung Easy Printer Manager.

Samsung Easy Printer Manager is an application that combines Samsung machine settings into one location. Samsung Easy Printer Manager combines device settings as well as printing environments, settings/actions and launching. All of these features provide a gateway to conveniently use your Samsung machine. Samsung Easy Printer Manager provides two different user interfaces for the user to choose from: the basic user interface and the advanced user interface. Switching between the two interfaces is easy: just click a button.

#### **Understanding Samsung Easy Printer Manager**

To open the program:

For Windows,

Select Start > Programs or All Programs > Samsung Printers > Samsung Easy Printer Manager > Samsung Easy Printer Manager.

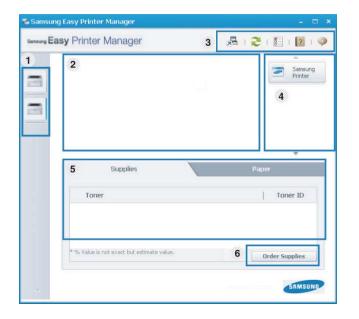
For Macintosh,

Open the **Applications** folder > **Samsung** folder > **Samsung Easy Printer Manager**.

The Samsung Easy Printer Manager interface is comprised of various basic sections as described in the table that follows:



The screenshot may differ depending on operating system you are using.



	Printer list	The Printer List displays printers installed on your
1		computer and network printers added by network
		discovery (Windows only).

# **Using Samsung Easy Printer Manager**

information machine. You can chec		This area gives you general information about your machine. You can check information, such as the machine's model name, IP address (or Port name), and machine status.	
2 You can view the		You can view the online <b>User's Guide</b> .	
		Troubleshooting button: This button opens the Troubleshooting Guide when an error occurs.  You can directly open the necessary section in the user's guide.	
	Application information	Includes links for changing to the advanced settings, preference, help, and about.	
3		The button is used to change the user interface to the advanced settings user interface (see "Advanced settings user interface overview" on page 256).	

4	Quick links	Displays <b>Quick links</b> to machine specific functions. This section also includes links to applications in the advanced settings.
		If you connect your machine to a network, the SyncThru™ Web Service icon is enabled.
5	Contents area	Displays information about the selected machine, remaining toner level, and paper. The information will vary based on the machine selected. Some machines do not have this feature.
6	Order supplies	Click on the <b>Order</b> button from the supply ordering window. You can order replacement toner cartridge(s) from online.



Select the **Help** menu or click the button from the window and click on any option you want to know about.

#### Advanced settings user interface overview

The advanced user interface is intended to be used by the person responsible for managing the network and machines.

# **Using Samsung Easy Printer Manager**



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine.

#### **Device Settings**

You can configure various machine settings such as machine setup, paper, layout, emulation, network, and print information.

#### **Scan to PC Settings**

This menu includes settings to create or delete scan to PC profiles.

- **Scan Activation:** Determines whether or not scanning is enabled on the device.
- **Profile:** Displays the scanning profiles saved on the selected device.
- Basic tab: Contains settings related general scan and device settings.
- Image tab: Contains settings related to image altering.

#### **Fax to PC Settings**

This menu includes settings related to the basic fax functionality of the selected device.

- **Disable:** If **Disable** is **On**, incoming faxes will not be received on this device.
- Enable Fax Receiving from Device: Enables faxing on the device and allow more options to be set.

#### **Alert Settings (Windows only)**

This menu includes settings related to error alerting.

- **Printer Alert:** Provides settings related to when alerts will be received.
- **Email Alert:** Provides options relating to receiving alerts via email.
- **Alert History:** Provides a history of device and toner related alerts.

#### **Job Accounting**

Provides querying of quota information of the specified job accounting user. This quota information can be created and applied to devices by job accounting software such as  $SyncThru^{TM}$  or  $CounThru^{TM}$  admin software.

# **Using Samsung Printer Status**

The Samsung Printer Status is a program that monitors and informs you of the machine status.



- The Samsung Printer Status window and its contents shown in this user's guide may differ depending on the machine or operating system in use.
- Check the operating system(s) that are compatible with your machine (see "Specifications" on page 101).
- Available for Windows OS users only (see "Software" on page 5).

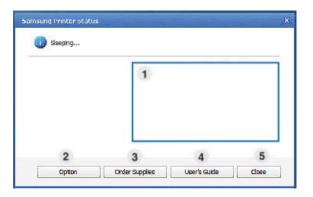
#### **Samsung Printer Status overview**

If an error occurs while operating, you can check the error from the Samsung Printer Status. Samsung Printer Status is installed automatically when you install the machine software.

You can also launch Samsung Printer Status manually. Go to the **Printing Preferences**, click the **Basic** tab > **Printer Status** button.

These icons appear on the Windows task bar:

lcon	Mean	Description
7	Normal	The machine is in ready mode and experiencing no errors or warnings.
둾	Warning	The machine 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.
183	Error	The machine has at least one error.



1	Toner Level	You can view the level of toner remaining in each toner cartridge. The machine and the number of toner cartridge(s) shown in the above window may differ depending on the machine in use. Some machines do not have this feature.
2	Option	You can set printing job alert related settings.

### **Using Samsung Printer Status**

3	Order Supplies	You can order replacement toner cartridge(s) from online.	
4	User's Guide	You can view the online User's Guide.  This button opens the <b>Troubleshooting Guide</b> when an error occurs. You can directly open the troubleshooting section in the user's guide.	
5	Close	Close the window.	

#### **Using Smart Panel**

Smart Panel is a program that monitors and informs you of the machine's status, and allows you to customize the machine's settings. You can download Smart Panel from the Samsung website (see "Installing the Smart Panel" on page 129).

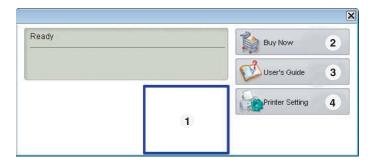


- The Smart Panel window and its contents shown in this user's guide may differ depending on the machine or operating system in use.
- Check the operating system(s) that are compatible with your machine (see "Specifications" on page 101).
- Available for Linux OS users only (see "Software" on page 5).

#### **Smart Panel overview**

If an error occurs while operating, you can check the error from the Smart Panel. You can also launch Smart Panel manually.

Double-click the Smart Panel icon( ) in the Notification Area.



1	Toner Level	You can view the level of toner remaining in each toner cartridge. The machine and the number of toner cartridge(s) shown in the above window may differ depending on the machine in use. If you cannot see this feature, it is not applicable to your machine.		
2	Buy Now	You can order replacement toner cartridge(s) from online.		
3	User's Guide	You can view the online User's Guide.  This button opens the <b>Troubleshooting Guide</b> when an error occurs. You can directly open the troubleshooting section in the user's guide.		
4	Printer Setting	You can configure various machine settings in the Printer Settings Utility window. Some machines do not have this feature.  If you connect your machine to a network, the SyncThru™ Web Service window appears instead of the Printer Settings Utility.		

## **Using Smart Panel**

#### **Changing Smart Panel's settings**

Right-click in Linux on the Smart Panel icon and select **Configure smart panel**. Select the settings you want from the **Configure smart panel** window.

The Unified Driver Configurator is a tool primarily intended for configuring machine devices. You need to install Unified Linux Driver to use Unified Driver Configurator (see "Installation for Linux" on page 129).

After the driver is installed on your Linux system, the Unified Driver Configurator icon will automatically be created on your desktop.

#### **Opening Unified Driver Configurator**

- 1 Double-click the Unified Driver Configurator on the desktop.
  You can also click the Startup Menu icon and select Samsung Unified Driver > Unified Driver Configurator.
- Click each button on the left to switch to the corresponding configuration window.



- 1 Printer Configuration
- **2** Port Configuration



After changing the configurations, click **Exit** to close the **Unified Driver Configurator**.

#### **Printers configuration**

**Printers configuration** has the two tabs: **Printers** and **Classes**.

#### **Printers tab**

View the current system's printer configuration by clicking on the machine icon button on the left side of the **Unified Driver Configurator** window.



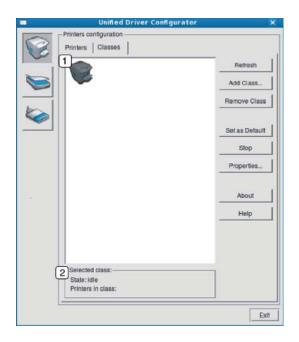
1	Switches to <b>Printers configuration</b> .
2	Shows all of the installed machines.
3	Shows the status, model name, and URI of your machine.

The printer control buttons are, as follows:

- **Refresh:** Renews the available machines list.
- Add Printer: Allows you to add a new machines.
- Remove Printer: Removes the selected machine.
- **Set as Default:** Sets the current selected machine as a default machine.
- **Stop/Start:** Stops/starts the machine.
- **Test:** Allows you to print a test page to ensure the machine is working properly.
- Properties: Allows you to view and change the printer's properties.

#### Classes tab

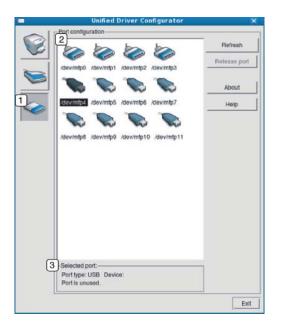
The Classes tab shows a list of available machine classes.



- 1 Shows all of the machine classes.
- 2 Shows the status of the class and the number of machines in the class.
- Refresh: Renews the classes list.
- Add Class: Allows you to add a new machine class.
- **Remove Class:** Removes the selected machine class.

#### **Ports configuration**

In this window, you can view the list of available ports, check the status of each port and release a port that is stalled in a busy state when its owner has terminated the job for any reason.



1	Switches to <b>Ports configuration</b> .
2	Shows all of the available ports.
3	Shows the port type, device connected to the port, and status.

- **Refresh:** Renews the available ports list.
- Release port: Releases the selected port.



# 6. Troubleshooting

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

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## Paper feeding problems

Condition	Suggested solutions
Paper jams during printing.	Clear the paper jam.
Paper sticks together.	Check the maximum paper capacity of the tray.
	Make sure that you are using the correct type of paper.
	Remove paper from the tray and flex or fan the paper.
	Humid conditions may cause some paper to stick together.
Multiple sheets of paper do not feed.	Different types of paper may be stacked in the tray. Load paper of only one type, size, and weight.
Paper does not feed into the machine.	Remove any obstructions from inside the machine.
	Paper has not been loaded correctly. Remove paper from the tray and reload it correctly.
	There is too much paper in the tray. Remove excess paper from the tray.
	The paper is too thick. Use only paper that meets the specifications required by the machine.
The paper keeps jamming.	There is too much paper in the tray. Remove excess paper from the tray. If you are printing on special materials, use the manual feeding in tray.
	• An incorrect type of paper is being used. Use only paper that meets the specifications required by the machine.
	There may be debris inside the machine. Open the front cover and remove any debris.
Transparencies stick together in the paper exit.	Use only transparencies specifically designed for laser printers. Remove each transparency as it exits from the machine.
Envelopes skew or fail to feed correctly.	Ensure that the paper guides are against both sides of the envelopes.

#### Power and cable connecting problems



Click this link to open an animation about solving power problems.

Condition	Suggested solutions
The machine is not receiving power, or the connection cable between the computer and the machine is not connected properly.	<ul> <li>Connect the machine to the electricity supply first. If the machine has a (b) (Power/Wakeup) button on the control, press it.</li> <li>Disconnect the machine's cable and reconnect it.</li> </ul>

Condition	Possible cause	Suggested solutions		
The machine does not print.	The machine is not receiving power.	Connect the machine to the electricity supply first. If the machine has a (Power/ Wakeup) button on the control, press it.		
	The machine is not selected as the default machine.	Select your machine as your default machine in Windows.		
	Check the machine for the following:			
	• The cover is not closed. Close the cover.			
	• Paper is jammed. Clear the paper jam (see "Clearing paper jams" on page 89).			
	No paper is loaded. Load paper (see "Loading paper in the tray" on page 42).			
	• The toner cartridge is not installed. Install the toner cartridge (see "Replacing the toner cartridge" on page 74).			
	Make sure the protect cover and sheets are removed from the toner cartridge (see "Replacing the toner cartridge" on pa			
	If a system error occurs, contact your service representative.			
	The connection cable between the computer and the machine is not connected properly.	Disconnect the machine cable and reconnect it (see "Rear view" on page 22).		
	The connection cable between the computer and the machine is defective.	If possible, attach the cable to another computer that is working properly and print a job You can also try using a different machine cable.		
	The port setting is incorrect.	Check the Windows printer settings to make sure that the print job is sent to the correct port. If the computer has more than one port, make sure that the machine is attached to the correct one.		

Condition	Possible cause	Suggested solutions
The machine does not	The machine may be configured incorrectly.	Check the <b>Printing Preferences</b> to ensure that all of the print settings are correct.
print.	The printer driver may be incorrectly installed.	Uninstall and reinstall the machine's driver.
	The machine is malfunctioning.	Check the display message on the control panel to see if the machine is indicating a system error. Contact a service representative.
	The document size is so big that the hard disk space of the computer is insufficient to access the print job.	Get more hard disk space and print the document again.
	The output tray is full.	Once the paper is removed from the output tray, the machine resumes printing.
The machine selects print materials from the wrong paper source.	The paper option that was selected in the <b>Printing Preferences</b> may be incorrect.	For many software applications, the paper source selection is found under the <b>Paper</b> tab within the <b>Printing Preferences</b> (see "Opening printing preferences" on page 56). Select the correct paper source. See the printer driver help screen (see "Using help" on page 57).
A print job is extremely slow.	The job may be very complex.	Reduce the complexity of the page or try adjusting the print quality settings.
Half the page is blank.	The page orientation setting may be incorrect.	Change the page orientation in your application (see "Opening printing preferences" on page 56). See the printer driver help screen (see "Using help" on page 57).
	The paper size and the paper size settings do not match.	Ensure that the paper size in the printer driver settings matches the paper in the tray.Or, ensure that the paper size in the printer driver settings matches the paper selection in the software application settings you use (see "Opening printing preferences" on page 56).
The machine prints, but the text is wrong, garbled, or incomplete.	The machine cable is loose or defective.	Disconnect the machine cable and reconnect. Try a print job that you have already printed successfully. If possible, attach the cable and the machine to another computer that you know works and try a print job. Finally, try a new machine cable.

Condition	Possible cause	Suggested solutions
	The wrong printer driver was selected.	Check the application's printer selection menu to ensure that your machine is selected.
	The software application is malfunctioning.	Try printing a job from another application.
	The operating system is malfunctioning.	Exit Windows and reboot the computer. Turn the machine off and back on again.
Pages print, but they are blank.	The toner cartridge is defective or out of toner.	<ul> <li>Redistribute the toner, if necessary. If necessary, replace the toner cartridge.</li> <li>See "Redistributing toner" on page 73.</li> <li>See "Replacing the toner cartridge" on page 74.</li> </ul>
	The file may have blank pages.	Check the file to ensure that it does not contain blank pages.
	Some parts, such as the controller or the board, may be defective.	Contact a service representative.
The machine does not print PDF files correctly. Some parts of graphics,	Incompatibility between the PDF file and the Acrobat products.	Printing the PDF file as an image may enable the file to print. Turn on <b>Print As Image</b> from the Acrobat printing options.
text, or illustrations are missing.		It will take longer to print when you print a PDF file as an image.
The print quality of photos is not good. Images are not clear.	The resolution of the photo is very low.	Reduce the photo size. If you increase the photo size in the software application, the resolution will be reduced.
Before printing, the machine emits vapor near the output tray.	Using damp paper can cause vapor during printing.	This is not a problem. Just keep printing.

Condition	Possible cause	Suggested solutions
The machine does not print special-sized paper, such as billing paper.	Paper size and paper size setting do not match.	Set the correct paper size in the <b>Custom</b> in <b>Paper</b> tab in <b>Printing Preferences</b> (see "Opening printing preferences" on page 56).
The printed billing paper is curled.	The paper type setting does not match.	Change the printer option and try again. Go to <b>Printing Preferences</b> , click <b>Paper</b> tab, and set type to <b>Thick</b> (see "Opening printing preferences" on page 56).

If the inside of the machine is dirty or paper has been loaded improperly, there might be a reduction in print quality. See the table below to clear the problem.

Condition	Suggested solutions
Light or faded print	• If a vertical white streak or faded area appears on the page, the toner supply is low. Install a new toner cartridge (see "Replacing the toner cartridge" on page 74).
AaBbCc	The paper may not meet paper specifications; for example, the paper may be too moist or rough.
AaBbCc AaBbCc	• If the entire page is light, the print resolution setting is too low or the toner save mode is on. Adjust the print resolution and turn the toner save mode off. See the help screen of the printer driver.
AaBbCc AaBbCc	• A combination of faded or smeared defects may indicate that the toner cartridge needs cleaning. Clean the inside of your machine (see "Cleaning the machine" on page 78).
	• The surface of the LSU part inside the machine may be dirty. Clean the inside of your machine (see "Cleaning the machine" on page 78). If these steps do not correct the problem, contact a service representative.
The top half of the paper is	The toner might not adhere properly to this type of paper.
printed lighter than the rest of the paper	• Change the printer option and try again. Go to <b>Printing Preferences</b> , click the <b>Paper</b> tab, and set the paper type to <b>Recycled</b> (see "Opening printing preferences" on page 56).
AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	

Condition	Suggested solutions
Toner specks	The paper may not meet specifications; for example, the paper may be too moist or rough.
A & C c A & C c A & C c A & C c A & C c	<ul> <li>The transfer roller may be dirty. Clean the inside of your machine (see "Cleaning the machine" on page 78).</li> <li>The paper path may need cleaning. Contact a service representative (see "Cleaning the machine" on page 78).</li> </ul>
Dropouts	If faded areas, generally rounded, occur randomly on the page:
A a B b C A a B b C A a B b C A a B b C A a B b C	<ul> <li>A single sheet of paper may be defective. Try reprinting the job.</li> <li>The moisture content of the paper is uneven or the paper has moist spots on its surface. Try a different brand of paper.</li> <li>The paper lot is bad. The manufacturing processes can cause some areas to reject toner. Try a different kind or brand of paper.</li> <li>Change the printer option and try again. Go to <b>Printing Preferences</b>, click the <b>Paper</b> tab, and set type to <b>Thick</b> (see "Opening printing preferences" on page 56).</li> <li>If these steps do not correct the problem, contact a service representative.</li> </ul>
White Spots	<ul> <li>If white spots appear on the page:</li> <li>The paper is too rough and a lot of dirt from paper falls to the inner components within the machine, so the transfer roller may be dirty. Clean the inside of your machine (see "Cleaning the machine" on page 78).</li> <li>The paper path may need cleaning. Clean the inside of your machine (see "Cleaning the machine" on page 78).</li> <li>If these steps do not correct the problem, contact a service representative.</li> </ul>

Condition	Suggested solutions
Vertical lines	If black vertical streaks appear on the page:
AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	<ul> <li>The surface (drum part) of the toner cartridge inside the machine has probably been scratched. Remove the toner cartridge and install a new one (see "Replacing the toner cartridge" on page 74).</li> <li>If white vertical streaks appear on the page:</li> <li>The surface of the LSU part inside the machine may be dirty. Clean the inside of your machine (see "Cleaning the machine" on page 78). If these steps do not correct the problem, contact a service representative.</li> </ul>
Black or color background	If the amount of background shading becomes unacceptable:
AaBbCc AaBbCc AaBbCc AaBbCc	<ul> <li>Change to a lighter weight paper.</li> <li>Check the environmental conditions: very dry conditions or a high level of humidity (higher than 80% RH) can increase the amount of background shading.</li> <li>Remove the old toner cartridge and install a new one (see "Replacing the toner cartridge" on page 74).</li> <li>Thoroughly redistribute the toner (see "Redistributing toner" on page 73).</li> </ul>
Toner smear	Clean the inside of the machine (see "Cleaning the machine" on page 78).
AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	<ul> <li>Check the paper type and quality.</li> <li>Remove the toner cartridge and install a new one (see "Replacing the toner cartridge" on page 74).</li> </ul>

Condition	Suggested solutions
Vertical repetitive defects	If marks repeatedly appear on the printed side of the page at even intervals:
AaBbCc	• The toner cartridge may be damaged. If you still have the same problem, remove the toner cartridge and, install a new one (see "Replacing the toner cartridge" on page 74).
A a B b C c A a B b C c	• Parts of the machine may have toner on them. If the defects occur on the back of the page, the problem will likely correct itself after a few more pages.
A a B b C c A a B b C c	The fusing assembly may be damaged. Contact a service representative.
Background scatter	Background scatter results from bits of toner randomly distributed on the printed page.
	• The paper may be too damp. Try printing with a different batch of paper. Do not open packages of paper until necessary so that the paper does not absorb too much moisture.
	• If background scatter occurs on an envelope, change the printing layout to avoid printing over areas that have overlapping seams on the reverse side. Printing on seams can cause problems.
	Or select <b>Thick</b> from the <b>Printing Preferences</b> window (see "Opening printing preferences" on page 56).
	• If background scatter covers the entire surface area of a printed page, adjust the print resolution through your software application or in <b>Printing Preferences</b> (see "Opening printing preferences" on page 56). Ensure the correct paper type is selected. For example: If Thicker Paper is selected, but Plain Paper actually used, an overcharging can occur causing this copy quality problem.
	• If you are using a new toner cartridge, redistribute the toner first (see "Redistributing toner" on page 73).
Toner particles are around bold	The toner might not adhere properly to this type of paper.
characters or pictures	• Change the printer option and try again. Go to <b>Printing Preferences</b> , click the <b>Paper</b> tab, and set the paper type to <b>Recycled</b> (see "Opening printing preferences" on page 56).
	• Ensure the correct paper type is selected. For example: If Thicker Paper is selected, but Plain Paper actually used, an overcharging can occur causing this copy quality problem.

Condition	Suggested solutions
Misformed characters	If characters are improperly formed and producing hollow images, the paper stock may be too slick. Try different paper.
AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	
Page skew	Ensure that the paper is loaded properly.
A a B b c A a B b C A a B b C A a B b C A a B b C	<ul> <li>Check the paper type and quality.</li> <li>Ensure that the guides are not too tight or too loose against the paper stack.</li> </ul>
Curl or wave	Ensure that the paper is loaded properly.
AaBbCC AaBbCC AaBbCC AaBbCC AaBbCC	<ul> <li>Check the paper type and quality. Both high temperature and humidity can cause paper curl.</li> <li>Turn the stack of paper over in the tray. Also try rotating the paper 180° in the tray.</li> </ul>

Condition	Suggested solutions
Wrinkles or creases  Aal bCc Aal bCc AaBbCc AaBbCc AaBbCc AaBbCc	<ul> <li>Ensure that the paper is loaded properly.</li> <li>Check the paper type and quality.</li> <li>Turn the stack of paper over in the tray. Also try rotating the paper 180° in the tray.</li> </ul>
AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	Check for leaking toner. Clean the inside of the machine (see "Cleaning the machine" on page 78).
Solid color or black pages	<ul> <li>The toner cartridge may not be installed properly. Remove the cartridge and reinsert it.</li> <li>The toner cartridge may be defective. Remove the toner cartridge and install a new one (see "Replacing the toner cartridge" on page 74).</li> <li>The machine may require repairing. Contact a service representative.</li> </ul>

Condition	Suggested solutions
AaBbCc AaBbCc AaBbCc AaBbCc AabCc Aacc	<ul> <li>Clean the inside of the machine (see "Cleaning the machine" on page 78).</li> <li>Check the paper type and quality.</li> <li>Remove the toner cartridge and then, install a new one (see "Replacing the toner cartridge" on page 74).</li> <li>If the problem persists, the machine may require repair. Contact a service representative.</li> </ul>
Character voids	<ul> <li>Character voids are white areas within parts of characters that should be solid black:</li> <li>If you are using transparencies, try another type of transparency. Because of the composition of transparencies, some character voids are normal.</li> <li>You may be printing on the wrong surface of the paper. Remove the paper and turn it around.</li> <li>The paper may not meet paper specifications.</li> </ul>
Horizontal stripes  A a B b C A a B b C A a B b C A a B b C A a B b C A a B b C	<ul> <li>If horizontally aligned black streaks or smears appear:</li> <li>The toner cartridge may be installed improperly. Remove the cartridge and reinsert it.</li> <li>The toner cartridge may be defective. Remove the toner cartridge and install a new one (see "Replacing the toner cartridge" on page 74).</li> <li>If the problem persists, the machine may require repairing. Contact a service representative.</li> </ul>

Condition	Suggested solutions
AaBbCc AaBbCc AaBbCc	<ul> <li>If the printed paper is curled or paper does not feed into the machine:</li> <li>Turn the stack of paper over in the tray. Also try rotating the paper 180° in the tray.</li> <li>Change the printer's paper option and try again. Go to <b>Printing Preferences</b>, click the <b>Paper</b> tab, and set type to <b>Thin</b> (see "Opening printing preferences" on page 56).</li> </ul>
<ul> <li>An unknown image repetitively appears on a few sheets</li> </ul>	Your machine is probably being used at an altitude of 1,000 m (3,281 ft) or above. The high altitude may affect the print quality, such as loose toner or light imaging. Change the altitude setting for your machine (see "Altitude adjustment" on page 201).
<ul> <li>Loose toner</li> </ul>	
<ul> <li>Light print or contamination occurs</li> </ul>	

## **Copying problems**

Condition	Suggested solutions
Copies are too light or too dark.	Adjust the darkness in copy feature to lighten or darken the backgrounds of copies (see "Changing the settings for each copy" on page 60).
If the defect still appears after cleaning the machine.	set the <b>Copy Feature</b> > <b>Adjust Background</b> > <b>Auto</b> . (see "Menu overview" on page 30).
Smears, lines, marks, or spots appear on copies.	<ul> <li>If the defects are on the original, adjust darkness in copy feature to lighten the background of your copies.</li> <li>If there are no defects on the original, clean the scan unit (see "Cleaning the scan unit" on page 82).</li> </ul>
Copy image is skewed.	<ul> <li>Ensure that the original is aligned with the registration guide.</li> <li>The transfer roller may be dirty. Clean the inside of your machine (see "Cleaning the machine" on page 78).</li> </ul>
Blank copies print out.	Ensure that the original is face down on the scanner glass or face up in the document feeder.  If these steps do not correct the problem, contact a service representative.
Image rubs off the copy easily.	<ul> <li>Replace the paper in the tray with paper from a new package.</li> <li>In high humidity areas, do not leave paper in the machine for extended periods of time.</li> </ul>
Frequent copy paper jams occur.	<ul> <li>Fan the paper, then turn it over in the tray. Replace the paper in the tray with a fresh supply. Check/adjust the paper guides, if necessary.</li> <li>Ensure that the paper is the proper type and weight (see "Print media specifications" on page 103).</li> </ul>
Toner cartridge produces fewer copies than expected before running out of toner.	<ul> <li>Check for copy paper or pieces of copy paper remaining in the machine after a paper jam has been cleared.</li> <li>Your originals may contain pictures, solids, or heavy lines. For example, your originals may be forms, newsletters, books, or other documents that use more toner.</li> <li>The scanner lid may be left open while copies are being made.</li> </ul>
	Turn the machine off and back on.

## Scanning problems

Condition	Suggested solutions
The scanner does not work.	Make sure that you place the original to be scanned face down on the scanner glass, or face up in the document feeder (see "Loading originals" on page 51).
	• There may not be enough available memory to hold the document you want to scan. Try the Prescan function to see if that works. Try lowering the scan resolution rate.
	Check that the machine printer cable is connected properly.
	• Make sure that the machine printer cable is not defective. Switch the printer cable with a known good cable. If necessary, replace the printer cable.
	• Check that the scanner is configured correctly. Check scan setting in the SmarThru Office or the application you want to use to make certain that the scanner job is being sent to the correct port (for example, USB001).
The unit scans very slowly.	Check if the machine is printing received data. If so, scan the document after the received data has been printed.
	Graphics are scanned more slowly than text.
	• Communication speed slows in scan mode because of the large amount of memory required to analyze and reproduce the scanned image. Set your computer to the ECP printer mode through BIOS setting. It will help to increase the speed. For details about how to set BIOS, refer to your computer user's guide.

## Scanning problems

Condition	Suggested solutions
<ul> <li>Message appears on your computer screen:</li> <li>Device can't be set to the H/W mode you want.</li> <li>Port is being used by another program.</li> <li>Port is disabled.</li> </ul>	<ul> <li>There may be a copying or printing job in progress. Try your job again when that job is finished.</li> <li>The selected port is currently being used. Restart your computer and try again.</li> <li>The machine printer cable may be improperly connected or the power may be off.</li> <li>The scanner driver is not installed or the operating environment is not set up properly.</li> <li>Ensure that the machine is properly connected and the power is on, then restart your computer.</li> <li>The USB cable may be improperly connected or the power may be off.</li> </ul>
<ul> <li>Scanner is busy receiving or printing data. When the current job is completed, try again.</li> <li>Invalid handle.</li> <li>Scanning has failed.</li> </ul>	

## Faxing problems

Condition	Suggested solutions
The machine is not working, there is no display, or the buttons are not working.	<ul> <li>Unplug the power cord and plug it in again.</li> <li>Ensure that there is power being supplied to the electrical outlet.</li> </ul>
	Ensure that the power is turned on.
No dial tone.	Check that the phone line is properly connected (see "Rear view" on page 22).
	Check that the phone socket on the wall is working by plugging in another phone.
The numbers stored in memory do not dial correctly.	Make sure that the numbers are stored in memory correctly. To check that, print an address book list.
The original does not feed into the machine.	Make sure that the paper is not wrinkled and you are inserting it in correctly. Check that the original is the right size, not too thick or thin.
	Make sure that the document feeder is firmly closed.
	• The document feeder rubber pad may need to be replaced. Contact a service representative (see "Available maintenance parts" on page 72).
Faxes are not received	The receiving mode should be set to fax (see "Changing the receive modes" on page 241).
automatically.	Make sure that there is paper in the tray (see "Print media specifications" on page 103).
	Check to see if the display shows any error message. If it does, clear the problem.
The machine does not send.	Make sure that the original is loaded in the document feeder or on the scanner glass.
	Check the fax machine you are sending to, to see if it can receive your fax.
The incoming fax has blank	The fax machine sending you the fax may be faulty.
spaces or is of poor-quality.	A noisy phone line can cause line errors.
	Check your machine by making a copy.
	• A toner cartridge has almost reached its estimated cartridge life. Replace the toner cartridge (see "Replacing the toner cartridge" on page 74).

## Faxing problems

Condition	Suggested solutions
Some of the words on an incoming fax are stretched.	The fax machine sending the fax had a temporary document jam.
There are lines on the originals you sent.	Check your scan unit for marks and clean it (see "Cleaning the scan unit" on page 82).
The machine dials a number, but the connection with the other fax machine fails.	The other fax machine may be turned off, out of paper, or cannot answer incoming calls. Speak with the other machine operator and ask them to solve the problem on their side.
Faxes do not store in memory.	There may not be enough memory space to store the fax. If the display indicating the memory status shows, delete any faxes you no longer need from the memory, and then try to store the fax again. Call for service.
Blank areas appear at the bottom of each page or on other pages, with a small strip of text at the top.	You may have chosen the wrong paper settings in the user option setting. Check the paper size and type again.

#### **Common Windows problems**

Condition	Suggested solutions	
"File in Use" message appears during installation.	Exit all software applications. Remove all software from the startup group, then restart Windows. Reinstall the printer driver.	
"General Protection Fault", "Exception OE", "Spool 32", or "Illegal Operation" messages appear.	Close all other applications, reboot Windows and try printing again.	
"Fail To Print", "A printer timeout error occurred" message appear.	These messages may appear during printing. Just keep waiting until the machine finishes printing. If the message appears in ready mode or after printing has completed, check the connection and/or whether an error has occurred.	



Refer to the Microsoft Windows User's Guide that came with your computer for further information on Windows error messages.

#### **Common Macintosh problems**

Condition	Suggested solutions		
The machine does not print PDF files correctly. Some parts of graphics, text, or	Printing the PDF file as an image may enable the file to print. Turn on <b>Print As Image</b> from the Acrobat printing options.		
illustrations are missing.	It will take longer to print when you print a PDF file as an image.		
Some letters are not displayed normally during cover page printing.	Mac OS cannot create the font while printing the cover page. The English alphabet and numbers are displayed normally on the cover page.		
When printing a document in Macintosh with Acrobat Reader 6.0 or higher, colors print incorrectly.	Make sure that the resolution setting in your machine driver matches the one in Acrobat Reader.		



Refer to the Macintosh User's Guide that came with your computer for further information on Macintosh error messages.

#### **Common Linux problems**

Condition	Suggested solutions		
The machine does not print.	<ul> <li>Check if the printer driver is installed in your system. Open Unified Driver Configurator and switch to the Printers tab in the Printers configuration window to look at the list of available machines. Make sure that your machine is displayed on the list. If not, open Add new printer wizard to set up your device.</li> </ul>		
	• Check if the machine is started. Open <b>Printers configuration</b> and select your machine from the printers list. Look at the description in the <b>Selected printer</b> pane. If its status contains <b>Stopped</b> , press the <b>Start</b> button. Normal operation of the machine should be restored. The "stopped" status might be activated when some problems in printing occur.		
	• Check if your application has special print options such as "-oraw". If "-oraw" is specified in the command line parameter, then remove it to print properly. For Gimp front-end, select "print" -> "Setup printer" and edit the command line parameter in the command item.		
Some color images come out all black.	This is a known bug in Ghostscript (until GNU Ghostscript version 7.05) when the base color space of the document is indexed color space and it is converted through CIE color space. Because Postscript uses CIE color space for Color Matching System, you should upgrade Ghostscript on your system to at least GNU Ghostscript version 7.06 or later. You can find recent Ghostscript versions at www.ghostscript.com.		
Some color images come out in unexpected color.	This is a known bug in Ghostscript (until GNU Ghostscript version 7.xx) when the base color space of the document is indexed RGB color space and it is converted through CIE color space. Because Postscript uses CIE color space for Color Matching System, you should upgrade Ghostscript on your system to at least GNU Ghostscript version 8.xx or later. You can find recent Ghostscript versions at www.ghostscript.com.		
The machine does not print whole pages, and output is printed on half the page.	It is a known problem that occurs when a color machine is used on version 8.51 or earlier of Ghostscript, 64-bit Linux OS, and has been reported to bugs.ghostscript.com as Ghostscript Bug 688252.The problem is solved in AFPL Ghostscript v. 8.52 or above. Download the latest version of AFPL Ghostscript from http://sourceforge.net/projects/ghostscript/ and install it to solve this problem.		

Condition	Suggested solutions
I cannot scan via Gimp Front- end.	Check if Gimp Front-end has Xsane:Device dialog. on the Acquire menu. If not, you should install Xsane plug-in for Gimp on the your computer. You can find Xsane plug-in package for Gimp on Linux distribution CD or Gimp home page. For the detailed information, refer to the Help for Linux distribution CD or Gimp Front-end application.  If you wish to use another kind of scan application, refer to application's Help.
"Cannot open port device file" error message appears when printing a document.	Avoid changing print job parameters (e.q., via LPR GUI) while a print job is in progress. Known versions of CUPS server break the print job whenever print options are changed and then try to restart the job from the beginning. Since Unified Linux Driver locks the port while printing, the abrupt termination of the driver keeps the port locked and unavailable for subsequent print jobs. If this situation occurs, try to release the port by selecting <b>Release port</b> in the <b>Port configuration</b> window.
The machine does not appear on the scanners list.	<ul> <li>Ensure your machine is attached to your computer, connected properly via the USB port, and is turned on.</li> <li>Ensure the scanner driver for your machine is installed in your system. Open Unified Linux Driver configurator, switch to Scanners configuration, then press Drivers. Make sure that driver with a name corresponding to your machine's name is listed in the window.</li> <li>Ensure the port is not busy. Since functional components of machine (printer and scanner) share the same I/O interface (port), the situation of simultaneous access of different user applications to the same port is possible. To avoid possible conflicts, only one of them at a time is allowed to gain control over the device. The other user will encounter "device busy" response. This usually happens when starting a scan procedure. An appropriate message box appears.</li> <li>To identify the source of the problem, open the Ports configuration and select the port assigned to your scanner, port's symbol / dev/mfp0 corresponds to LP:0 designation displayed in the scanners' options, /dev/mfp1 relates to LP:1, and so on. USB ports start at /dev/mfp4, so scanner on USB:0 relates to /dev/mfp4 respectively and so forth sequentially. In the Selected port pane, you can see if the port is occupied by another application. If this is the case, you should either wait for completion of the current job or press the Release port button, if you are sure that the present port application is not functioning properly.</li> </ul>
The machine does not scan.	<ul> <li>Ensure a document is loaded into the machine, ensure your machine is connected to the computer.</li> <li>If there is an I/O error while scanning.</li> </ul>



Refer to the Linux User's Guide that came with your computer for further information on Linux error messages.

#### **Common PostScript problems**

The following situations are PS language specific and may occur when several printer languages are used.

Problem	Possible cause	Solution
The PostScript file cannot be printed	The PostScript driver may not be installed correctly.	<ul> <li>Install the PostScript driver (see "Software Installation" on page 126).</li> <li>Print a configuration page and verify that the PS version is available for printing.</li> <li>If the problem persists, contact a service representative.</li> </ul>
Limit Check Error report prints	The print job was too complex.	You might need to reduce the complexity of the page or install more memory.
A PostScript error page prints	The print job may not be PostScript.	Make sure that the print job is a PostScript job. Check to see whether the software application expected a setup or PostScript header file to be sent to the machine.
The optional tray is not selected in the driver	The printer driver has not been configured to recognize the optional tray.	Open the PostScript driver properties, select the <b>Device Options</b> tab, and set the tray option.
When printing a document in Macintosh with Acrobat Reader 6.0 or higher, colors print incorrectly	The resolution setting in the printer driver may not be matched with the one in Acrobat Reader.	Make sure that the resolution setting in your printer driver matches the one in Acrobat Reader.

If you have any comments or questions regarding Samsung products, contact the Samsung customer care center.

Country/Region	Customer Care Center	Web Site
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ARGENTINE	0800-333-3733	www.samsung.com
ARMENIA	0-800-05-555	
AUSTRALIA	1300 362 603	www.samsung.com
AUSTRIA	0810-SAMSUNG (7267864, € 0.07/min)	www.samsung.com
AZERBAIJAN	088-55-55-555	
BAHRAIN	8000-4726	www.samsung.com
BELARUS	810-800-500-55-500	
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CROATIA	062 SAMSUNG (062 726 7864)	www.samsung.com
	800-SAMSUNG (800-726786)	www.samsung.com
CZECH REPUBLIC	Samsung Zrt., česká organizační složka, Oasis Florenc, Sokolovská394/17, 180 00, Praha 8	
DENMARK	70 70 19 70	www.samsung.com
DOMINICA	1-800-751-2676	www.samsung.com
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EIRE	0818 717100	www.samsung.com
EL SALVADOR	800-6225	www.samsung.com
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FINLAND	030-6227 515	www.samsung.com
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INDONESIA	0800-112-8888 021-5699-7777	www.samsung.com
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VIETNAM	1 800 588 889	www.samsung.com



The following glossary helps you get familiar with the product by understanding the terminologies commonly used with printing as well as mentioned in this user's guide.

### 802.11

802.11 is a set of standards for wireless local area network (WLAN) communication, developed by the IEEE LAN/MAN Standards Committee (IEEE 802).

## 802.11b/g/n

802.11b/g/n can share same hardware and use the 2.4 GHz band. 802.11b supports bandwidth up to 11 Mbps, 802.11n supports bandwidth up to 150 Mbps. 802.11b/g/n devices may occasionally suffer interference from microwave ovens, cordless telephones, and Bluetooth devices.

## **Access point**

Access Point or Wireless Access Point (AP or WAP) is a device that connects wireless communication devices together on wireless local area networks (WLAN), and acts as a central transmitter and receiver of WLAN radio signals.

#### **ADF**

An Automatic Document Feeder (ADF) is a scanning unit that will automatically feed an original sheet of paper so that the machine can scan some amount of the paper at once.

## **AppleTalk**

AppleTalk is a proprietary suite of protocols developed by Apple, Inc for computer networking. It was included in the original Macintosh (1984) and is now deprecated by Apple in favor of TCP/IP networking.

## **BIT Depth**

A computer graphics term describing the number of bits used to represent the color of a single pixel in a bitmapped image. Higher color depth gives a broader range of distinct colors. As the number of bits increases, the number of possible colors becomes impractically large for a color map. 1-bit color is commonly called as monochrome or black and white.

#### **BMP**

A bitmapped graphics format used internally by the Microsoft Windows graphics subsystem (GDI), and used commonly as a simple graphics file format on that platform.

### **BOOTP**

Bootstrap Protocol. A network protocol used by a network client to obtain its IP address automatically. This is usually done in the bootstrap process of computers or operating systems running on them. The BOOTP servers assign the IP address from a pool of addresses to each client. BOOTP enables 'diskless workstation' computers to obtain an IP address prior to loading any advanced operating system.

## **CCD**

Charge Coupled Device (CCD) is a hardware which enables the scan job. CCD Locking mechanism is also used to hold the CCD module to prevent any damage when you move the machine.

### **Collation**

Collation is a process of printing a multiple-copy job in sets. When collation is selected, the device prints an entire set before printing additional copies.

## **Control Panel**

A control panel is a flat, typically vertical, area where control or monitoring instruments are displayed. They are typically found in front of the machine.

## Coverage

It is the printing term used for a toner usage measurement on printing. For example, 5% coverage means that an A4 sided paper has about 5% image or text on it. So, if the paper or original has complicated images or lots of text on it, the coverage will be higher and at the same time, a toner usage will be as much as the coverage.

### **CSV**

Comma Separated Values (CSV). 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 de facto standard throughout the industry, even among non-Microsoft platforms.

### **DADF**

A Duplex Automatic Document Feeder (DADF) is a scanning unit that will automatically feed and turn over an original sheet of paper so that the machine can scan on both sides of the paper.

### **Default**

The value or setting that is in effect when taking a printer out of its box state, reset, or initialized.

### **DHCP**

A Dynamic Host Configuration Protocol (DHCP) is a client-server networking protocol. A DHCP server provides configuration parameters specific to the DHCP client host requesting, generally, information required by the client host to participate on an IP network. DHCP also provides a mechanism for allocation of IP addresses to client hosts.

## **DIMM**

Dual Inline Memory Module (DIMM), a small circuit board that holds memory. DIMM stores all the data within the machine like printing data, received fax data.

## **DLNA**

The Digital Living Network Alliance (DLNA) is a standard that allows devices on a home network to share information with each other across the network.

## **DNS**

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

## **Dot Matrix Printer**

A dot matrix printer refers to a type of computer printer with a print head that runs back and forth on the page and prints by impact, striking an ink-soaked cloth ribbon against the paper, much like a typewriter.

#### **DPI**

Dots Per Inch (DPI) is a measurement of resolution that is used for scanning and printing. Generally, higher DPI results in a higher resolution, more visible detail in the image, and a larger file size.

## **DRPD**

Distinctive Ring Pattern Detection. Distinctive Ring is a telephone company service which enables a user to use a single telephone line to answer several different telephone numbers.

## **Duplex**

A mechanism that will automatically turn over a sheet of paper so that the machine can print (or scan) on both sides of the paper. A printer equipped with a Duplex Unit can print on both sides of paper during one print cycle.

## **Duty Cycle**

Duty cycle is the page quantity which does not affect printer performance for a month. Generally the printer has the lifespan limitation such as pages per year. The lifespan means the average capacity of print-outs, usually within the warranty period. For example, if the duty cycle is 48,000 pages per month assuming 20 working days, a printer limits 2,400 pages a day.

## **ECM**

Error Correction Mode (ECM) is an optional transmission mode built into Class 1 fax machines or fax modems. It automatically detects and corrects errors in the fax transmission process that are sometimes caused by telephone line noise.

### **Emulation**

Emulation is a technique of one machine obtaining the same results as another.

An emulator duplicates the functions of one system with a different system, so that the second system behaves like the first system. Emulation focuses on exact reproduction of external behavior, which is in contrast to simulation, which concerns an abstract model of the system being simulated, often considering its internal state.

## **Ethernet**

Ethernet is a frame-based computer networking technology for local area networks (LANs). It defines wiring and signaling for the physical layer, and frame formats and protocols for the media access control (MAC)/data link layer of the OSI model. Ethernet is mostly standardized as IEEE 802.3. It has become the most widespread LAN technology in use during the 1990s to the present.

#### **EtherTalk**

A suite of protocols developed by Apple Computer for computer networking. It was included in the original Macintosh (1984) and is now deprecated by Apple in favor of TCP/IP networking.

## **FDI**

Foreign Device Interface (FDI) is a card installed inside the machine to allow a third party device such as a coin operated device or a card reader. Those devices allow the pay-for-print service on your machine.

## **FTP**

A 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).

#### **Fuser Unit**

The part of a laser printer that fuses the toner onto the print media. It consists of a heat roller and a pressure roller. After toner is transferred onto the paper, the fuser unit applies heat and pressure to ensure that the toner stays on the paper permanently, which is why paper is warm when it comes out of a laser printer.

## **Gateway**

A connection between computer networks, or between a computer network and a telephone line. It is very popular, as it is a computer or a network that allows access to another computer or network.

## Grayscale

A shades of gray that represent light and dark portions of an image when color images are converted to grayscale; colors are represented by various shades of gray.

## **Halftone**

An image type that simulates grayscale by varying the number of dots. Highly colored areas consist of a large number of dots, while lighter areas consist of a smaller number of dots.

## Mass storage device (HDD)

Mass storage device (HDD), commonly referred to as a hard drive or hard disk, is a non-volatile storage device which stores digitally-encoded data on rapidly rotating platters with magnetic surfaces.

#### **IEEE**

The Institute of Electrical and Electronics Engineers (IEEE) is an international non-profit, professional organization for the advancement of technology related to electricity.

#### **IEEE 1284**

The 1284 parallel port standard was developed by the Institute of Electrical and Electronics Engineers (IEEE). The term "1284-B" refers to a specific connector type on the end of the parallel cable that attaches to the peripheral (for example, a printer).

### **Intranet**

A private network that uses Internet Protocols, network connectivity, and possibly the public telecommunication system to securely share part of an organization's information or operations with its employees. Sometimes the term refers only to the most visible service, the internal website.

## **IP address**

An 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.

#### **IPM**

The Images Per Minute (IPM) is a way of measuring the speed of a printer. An IPM rate indicates the number of single-sided sheets a printer can complete within one minute.

### **IPP**

The 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.

## IPX/SPX

IPX/SPX stands for Internet Packet Exchange/Sequenced Packet Exchange. It is a networking protocol used by the Novell NetWare operating systems. IPX and SPX both provide connection services similar to TCP/IP, with the IPX protocol having similarities to IP, and SPX having similarities to TCP. IPX/SPX was primarily designed for local area networks (LANs), and is a very efficient protocol for this purpose (typically its performance exceeds that of TCP/IP on a LAN).

#### ISO

The International Organization for Standardization (ISO) is an international standard-setting body composed of representatives from national standards bodies. It produces world-wide industrial and commercial standards.

#### ITU-T

The International Telecommunication Union is an international organization established to standardize and regulate international radio and telecommunications. Its main tasks include standardization, allocation of the radio spectrum, and organizing interconnection arrangements between different countries to allow international phone calls. A -T out of ITU-T indicates telecommunication.

#### ITU-T No. 1 chart

Standardized test chart published by ITU-T for document facsimile transmissions.

## **JBIG**

Joint Bi-level Image Experts Group (JBIG) is an image compression standard with no loss of accuracy or quality, which was designed for compression of binary images, particularly for faxes, but can also be used on other images.

## **JPEG**

Joint Photographic Experts Group (JPEG) is a most commonly used standard method of lossy compression for photographic images. It is the format used for storing and transmitting photographs on the World Wide Web.

#### **LDAP**

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

## **LED**

A Light-Emitting Diode (LED) is a semiconductor device that indicates the status of a machine.

## **MAC address**

Media Access Control (MAC) address is a unique identifier associated with a network adapter. MAC address is a unique 48-bit identifier usually written as 12 hexadecimal characters grouped in pairs (e. g., 00-00-0c-34-11-4e). This address is usually hard-coded into a Network Interface Card (NIC) by its manufacturer, and used as an aid for routers trying to locate machines on large networks.

### **MFP**

Multi Function 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.

#### MH

Modified Huffman (MH) is a compression method for decreasing the amount of data that needs to be transmitted between the fax machines to transfer the image recommended by ITU-T T.4. MH is a codebook-based run-length encoding scheme optimized to efficiently compress white space. As most faxes consist mostly of white space, this minimizes the transmission time of most faxes.

#### **MMR**

Modified Modified READ (MMR) is a compression method recommended by ITU-T T.6.

#### Modem

A device that modulates a carrier signal to encode digital information, and also demodulates such a carrier signal to decode transmitted information.

#### MR

Modified Read (MR) is a compression method recommended by ITU-T T.4. MR encodes the first scanned line using MH. The next line is compared to the first, the differences determined, and then the differences are encoded and transmitted.

## **NetWare**

A network operating system developed by Novell, Inc. It initially used cooperative multitasking to run various services on a PC, and the network protocols were based on the archetypal Xerox XNS stack. Today NetWare supports TCP/IP as well as IPX/SPX.

## **OPC**

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 rust colored and has a cylinder shape.

An imaging unit containing a drum slowly wears the drum surface by its usage in the printer, and it should be replaced appropriately since it gets worn from contact with the cartridge development brush, cleaning mechanism, and paper.

## **Originals**

The first example of something, such as a document, photograph or text, etc, which is copied, reproduced or translated to produce others, but which is not itself copied or derived from something else.

#### OSI

Open Systems Interconnection (OSI) is a model developed by the International Organization for Standardization (ISO) for communications. OSI offers a standard, modular approach to network design that divides the required set of complex functions into manageable, self-contained, functional layers. The layers are, from top to bottom, Application, Presentation, Session, Transport, Network, Data Link and Physical.

## **PABX**

A private automatic branch exchange (PABX) is an automatic telephone switching system within a private enterprise.

## **PCL**

Printer Command Language (PCL) is a Page Description Language (PDL) developed by HP as a printer protocol and has become an industry standard. Originally developed for early inkjet printers, PCL has been released in varying levels for thermal, dot matrix printer, and laser printers.

#### **PDF**

Portable Document Format (PDF) is a proprietary file format developed by Adobe Systems for representing two dimensional documents in a device independent and resolution independent format.

## **PostScript**

PostScript (PS) is a page description language and programming language used primarily in the electronic and desktop publishing areas. - that is run in an interpreter to generate an image.

### **Printer Driver**

A program used to send commands and transfer data from the computer to the printer.

## **Print Media**

The media like paper, envelopes, labels, and transparencies which can be used in a printer, a scanner, a fax or, a copier.

### **PPM**

Pages Per Minute (PPM) is a method of measurement for determining how fast a printer works, meaning the number of pages a printer can produce in one minute.

### **PRN file**

An interface for a device driver, this allows software to interact with the device driver using standard input/output system calls, which simplifies many tasks.

#### **Protocol**

A convention or standard that controls or enables the connection, communication, and data transfer between two computing endpoints.

## PS

See PostScript.

## **PSTN**

The Public-Switched Telephone Network (PSTN) is the network of the world's public circuit-switched telephone networks which, on industrial premises, is usually routed through the switchboard.

### **RADIUS**

Remote Authentication Dial In User Service (RADIUS) is a protocol for remote user authentication and accounting. RADIUS enables centralized management of authentication data such as usernames and passwords using an AAA (authentication, authorization, and accounting) concept to manage network access.

## Resolution

The sharpness of an image, measured in Dots Per Inch (DPI). The higher the dpi, the greater the resolution.

### **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.

## **SSID**

Service Set Identifier (SSID) is a name of a wireless local area network (WLAN). All wireless devices in a WLAN use the same SSID in order to communicate with each other. The SSIDs are case-sensitive and have a maximum length of 32 characters.

## **Subnet Mask**

The subnet mask is used in conjunction with the network address to determine which part of the address is the network address and which part is the host address.

#### 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.

#### **TCR**

Transmission Confirmation Report (TCR) provides details of each transmission such as job status, transmission result and number of pages sent. This report can be set to print after each job or only after failed transmissions.

## TIFF

Tagged Image File Format (TIFF) is a variable-resolution bitmapped image format. TIFF describes image data that typically come from scanners. TIFF images make use of tags, keywords defining the characteristics of the image that is included in the file. This flexible and platform-independent format can be used for pictures that have been made by various image processing applications.

## **Toner Cartridge**

A kind of bottle or container used in a machine like a printer which contains toner. Toner is a powder used in laser printers and photocopiers, which forms the text and images on the printed paper. Toner can be fused by by a combination of heat/pressure from the fuser, causing it to bind to the fibers in the paper.

#### **TWAIN**

An industry standard for scanners and software. By using a TWAIN-compliant scanner with a TWAIN-compliant program, a scan can be initiated from within the program. It is an image capture API for Microsoft Windows and Apple Macintosh operating systems.

## **UNC Path**

Uniform Naming Convention (UNC) is a standard way to access network shares in Window NT and other Microsoft products. The format of a UNC path is: \\<servername>\<Additional directory>

## **URL**

Uniform Resource Locator (URL) is the global address of documents and resources on the Internet. The first part of the address indicates what protocol to use, the second part specifies the IP address or the domain name where the resource is located.

## **USB**

Universal Serial Bus (USB) is a standard that was developed by the USB Implementers Forum, Inc., to connect computers and peripherals. Unlike the parallel port, USB is designed to concurrently connect a single computer USB port to multiple peripherals.

#### **Watermark**

A watermark is a recognizable image or pattern in paper that appears lighter when viewed by transmitted light. Watermarks were first introduced in Bologna, Italy in 1282; they have been used by papermakers to identify their product, and also on postage stamps, currency, and other government documents to discourage counterfeiting.

#### **WEP**

Wired Equivalent Privacy (WEP) is a security protocol specified in IEEE 802.11 to provide the same level of security as that of a wired LAN. WEP provides security by encrypting data over radio so that it is protected as it is transmitted from one end point to another.

### **WIA**

Windows Imaging Architecture (WIA) is an imaging architecture that is originally introduced in Windows Me and Windows XP. A scan can be initiated from within these operating systems by using a WIA-compliant scanner.

## **WPA**

Wi-Fi Protected Access (WPA) is a class of systems to secure wireless (Wi-Fi) computer networks, which was created to improve upon the security features of WEP.

#### **WPA-PSK**

WPA-PSK (WPA Pre-Shared Key) is special mode of WPA for small business or home users. A shared key, or password, is configured in the wireless access point (WAP) and any wireless laptop or desktop devices. WPA-PSK generates a unique key for each session between a wireless client and the associated WAP for more advanced security.

## **WPS**

The Wi-Fi Protected Setup (WPS) is a standard for establishing a wireless home network. If your wireless access point supports WPS, you can configure the wireless network connection easily without a computer.

## **XPS**

XML Paper Specification (XPS) is a specification for a Page Description Language (PDL) and a new document format, which has benefits for portable document and electronic document, developed by Microsoft. It is an XML-based specification, based on a new print path and a vector-based device-independent document format.