SATO CUPS Driver for Mac OS X

User Manual

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https://www.sato-global.com/about/locations.html

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Overview 1

The SATO Driver for Mac OS X system was developed to allow the users to print into the SATO printer.

This driver is based on CUPS printing system for Mac OS X. All the device communications are handled by CUPS (backend). The raster filter converts the CUPS raster graphic into SBPL which the printer can understand. For an instance, if the user prints a label, the raster filter converts the graphic into SBPL command which will be sent to the printer together with the printer options.

1.1 Supported Models of SATO Printer

Currently, only the following models of printers are supported by the current version of the driver:

Series Name	Models
CG2 Series	CG208 DT/TT CG212 DT/TT
CG4 Series	CG408 DT/TT CG412 DT/TT
CL4e Series	CL408e CL412e
CL6e Series	CL608e CL612e
CL4NX Series	CL4NX 203 dpi CL4NX 305 dpi CL4NX 609 dpi
CL4NX Plus Series	CL4NX Plus 203 dpi CL4NX Plus 305 dpi CL4NX Plus 609 dpi
CL4NX-J Series	CL4NX-J 203 dpi CL4NX-J 305 dpi CL4NX-J 609 dpi
CL4NX-J Plus Series	CL4NX-J Plus 203 dpi CL4NX-J Plus 305 dpi CL4NX-J Plus 609 dpi
CL6NX Series	CL6NX 203 dpi CL6NX 305 dpi
CL6NX Plus Series	CL6NX Plus 203 dpi CL6NX Plus 305 dpi
CL6NX-J Series	CL6NX-J 203 dpi CL6NX-J 305 dpi
CL6NX-J Plus Series	CL6NX-J Plus 203 dpi CL6NX-J Plus 305 dpi
CT4i Series	CT408i CT412i
CT4-LX Series	CT4-LX 203 dpi CT4-LX 305 dpi
HC4-LX Series	HC4-LX 203 dpi HC4-LX 305 dpi
CT4-LX-J Series	CT4-LX-J 203 dpi CT4-LX-J 305 dpi
HC4-LX-J Series	HC4-LX-J 203 dpi HC4-LX-J 305 dpi

Series Name	Models
FX3-LX	FX3-LX DT305-Ln
GL4e Series	GL408e GL412e
GZ4e Series	GZ408e GZ412e
LM4e Series	LM408e LM412e
M10e	M10e
M84 Pro Series	M84 Pro 2 M84 Pro 3 M84 Pro 6
M84xxSe Series	M8485Se M8490Se M8459Se M8460Se M8465Se
MB2i Series	MB200i
MB4i Series	MB400i MB410i
PW208 Series	PW208NX PW208mNX
PW4NX Series	PW4NX 203 dpi PW4NX-J 203 dpi
S84 Series	S8408 S8412 S8424
S84-ex/S86-ex Series	S84-ex 203 dpi S84-ex 305 dpi S84-ex 609 dpi S86-ex 203 dpi S86-ex 305 dpi
S84NX Series	S84NX 203 dpi S84NX 305 dpi S84NX 609 dpi
S86NX Series	S86NX 203 dpi S86NX 305 dpi
SG112-ex	SG112-ex 305 dpi
TG3e Series	TG308e TG312e
WS4 Series	WS408 DT/TT WS412 DT/TT

1.2 Printer Properties/Options

The driver supports the following printer settings. Please take note that the setting varies depending on the printer model. For more information, refer to the printer specifications.

Property	Description
Media Size	Sets the media size. Units in inches.
B&W Conversion	Allows users to select dither options for improved printing image quality. The choices are: - Dither (default) will be used for images. - Threshold (50%) will give sharp edges for text and bar codes. - Threshold (75%) will give sharp edges for text and bar codes, darker than 50%. - Threshold (25%) will give sharp edges for text and bar codes, lighter than 50%.
Sensor Type	Specifies the selection of the transparent sensor or the reflection sensor
Print Method	Sets the Print method/type such as Thermal Type and Direct Thermal Type
Resolution	Sets the print density
Print Speed	Sets the print speed
Darkness Range	Sets the print darkness. The print density parameter can be specified in six options from “A” to “F”.
Darkness Level	Sets the print darkness level. The print density level parameter can be specified in five options from “1” to “5”
Print Mode	Sets the operation mode such as Continuous, Tear Off, Cutter and Dispenser Operation
Cutter	Sets the cutter options. This is only applicable for printer units with cutter. Cutter Operation Mode should also be selected to make it work
Vertical Offset	Sets the start position coordinate. Specifies the vertical start position correction signal. Units in inches
Horizontal Offset	Sets the start position coordinate. Specifies the horizontal start position correction signal. Units in inches

System Requirements

2

The minimum system requirements for the SATO CUPS Driver for Mac OS X are:

- Mac with Mac OS X with CUPS 1.5 or higher
- At least one supported model of SATO printer that can connect to the Mac

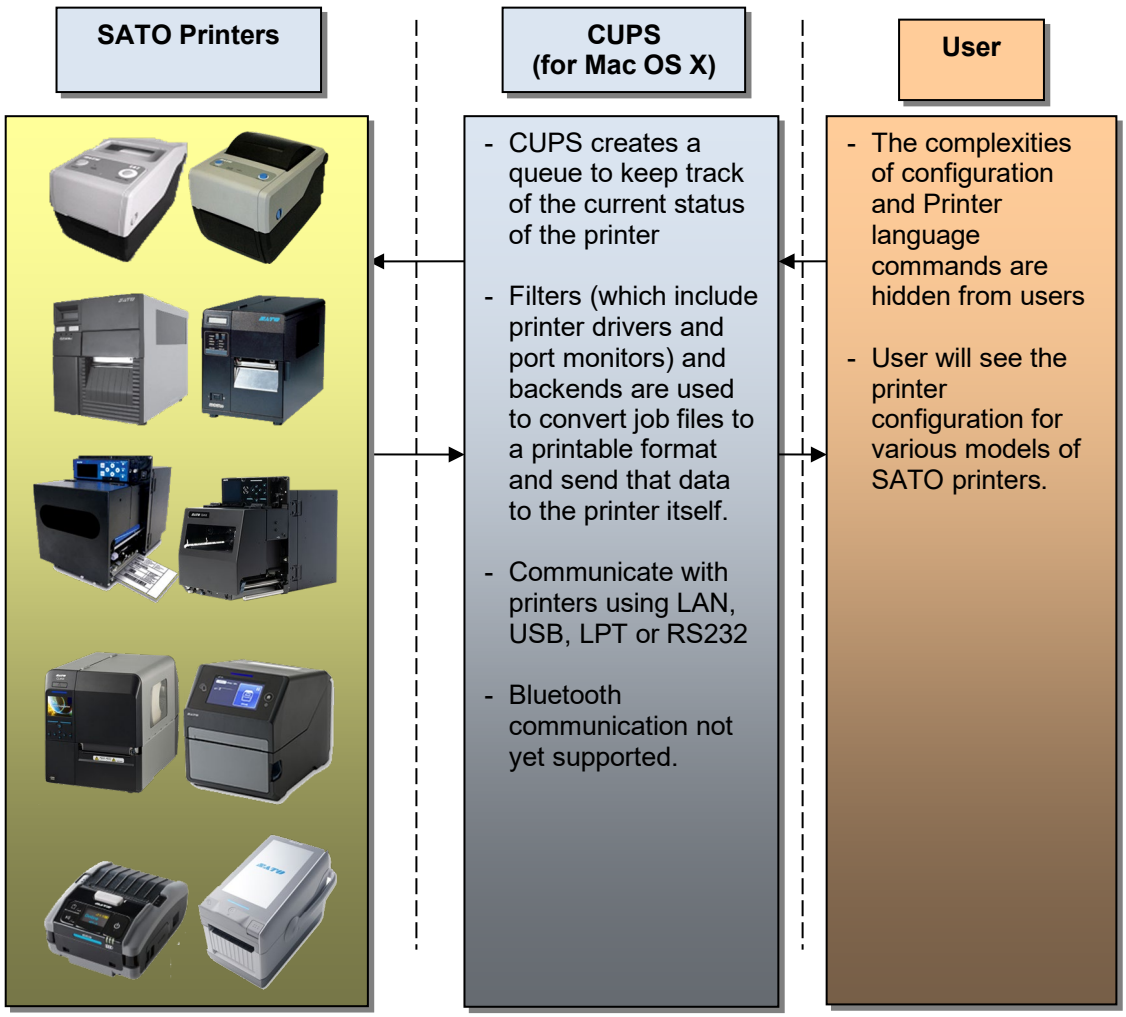


Figure 1 Overview

Setup 3

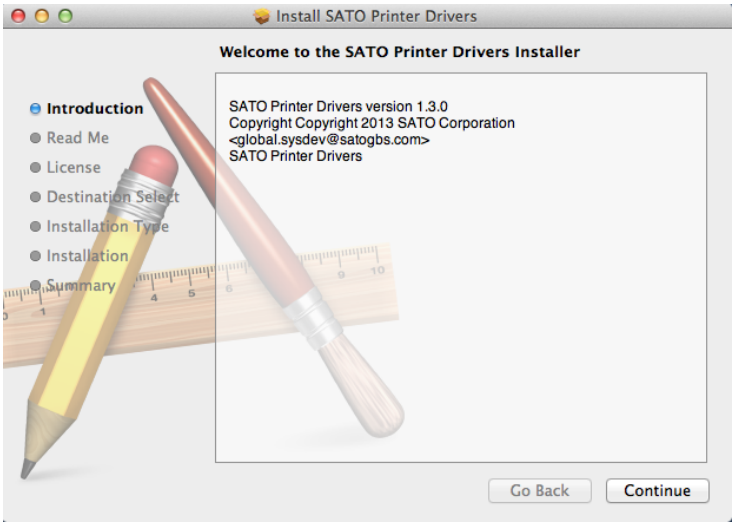
3.1 Installing the Driver

After obtaining the packages perform the following actions below.

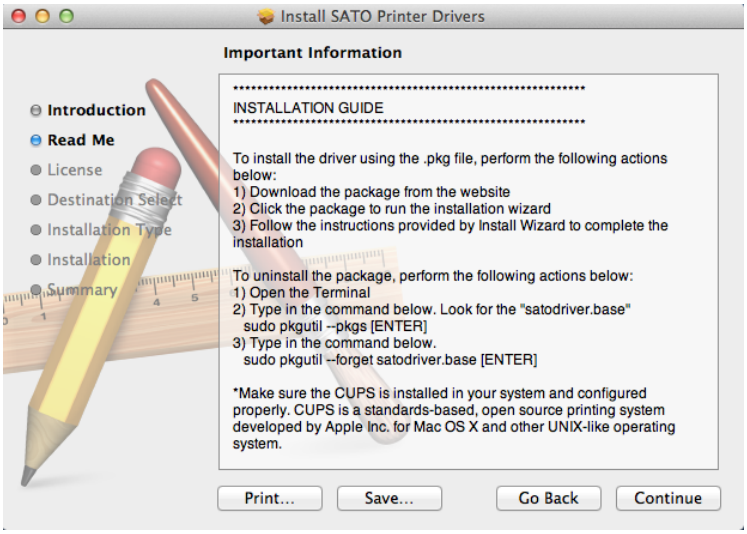
Note: The screenshots may look different depending on the Mac OS X Distribution you are using.

1) Locate the package file (.pkg) and run it.

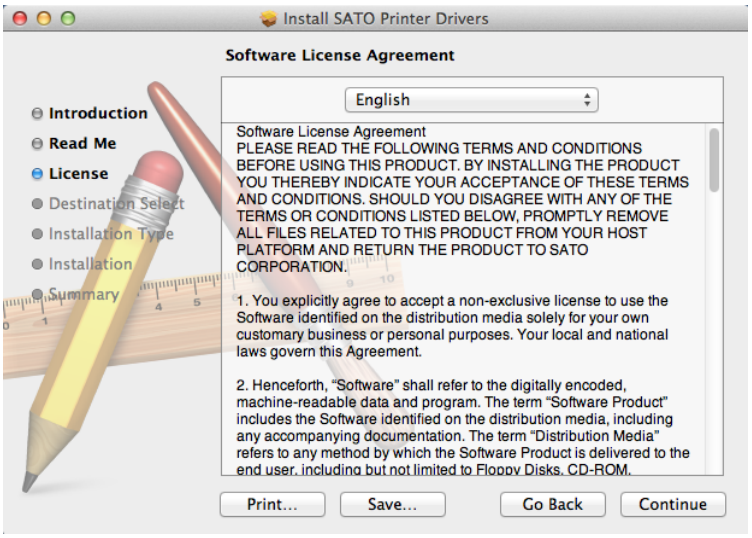
2) The Installation wizard will appear on the screen. Click the **Continue** button to proceed to the next step.

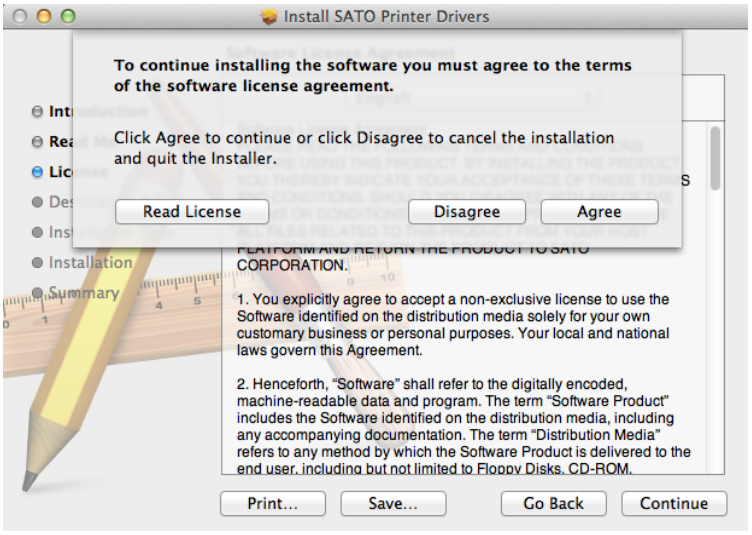


3) Click the **Continue** button after reading the Read Me text**.**

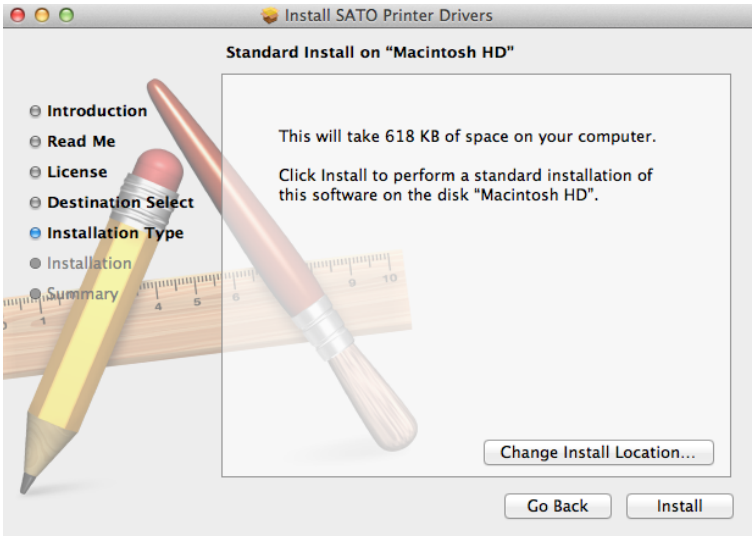


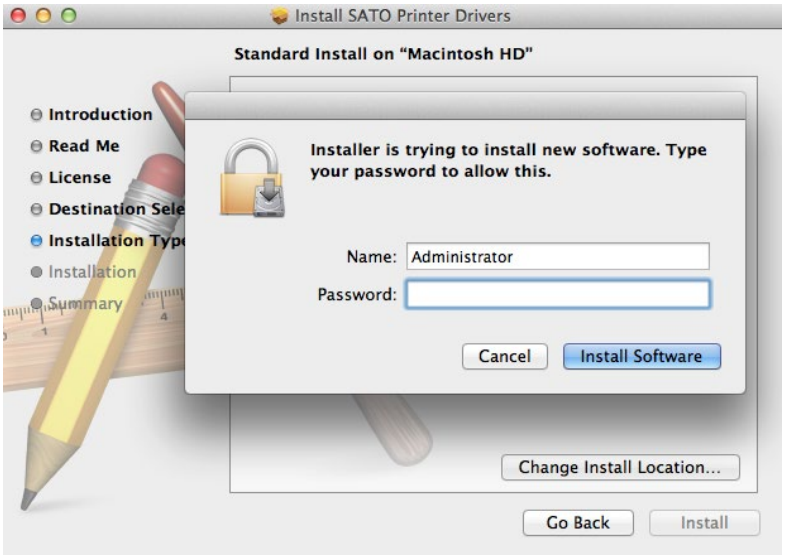
4) Click **Continue** and **Agree** to proceed to the next step.





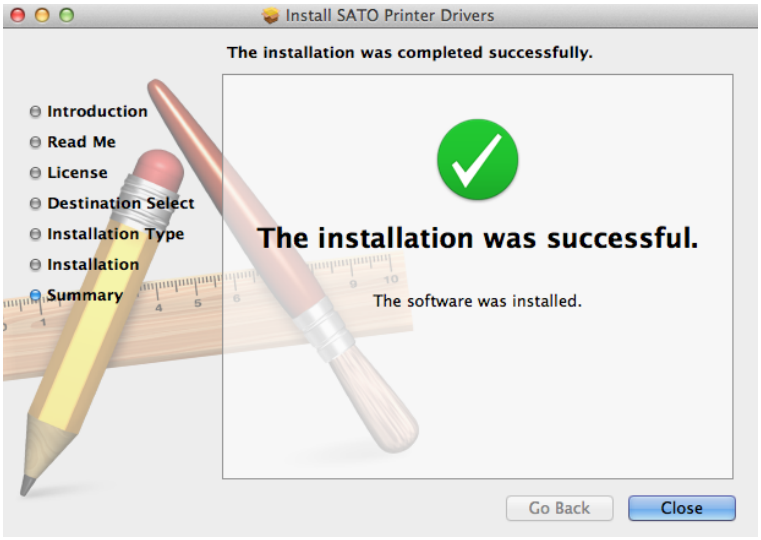
5) On the installation wizard screen, click **Install** to confirm the installation.





Note: In case you are required to enter your username and password, please enter and click **Install Software**.

6) Click the **Close** button to close the dialog box

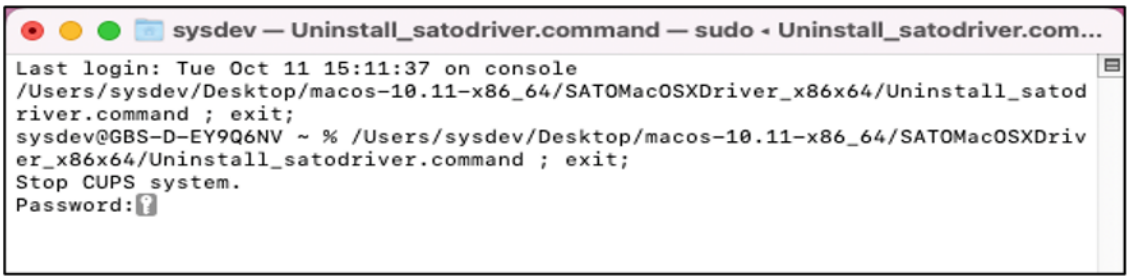


3.2 Uninstalling the Driver

1) Locate the package folder.

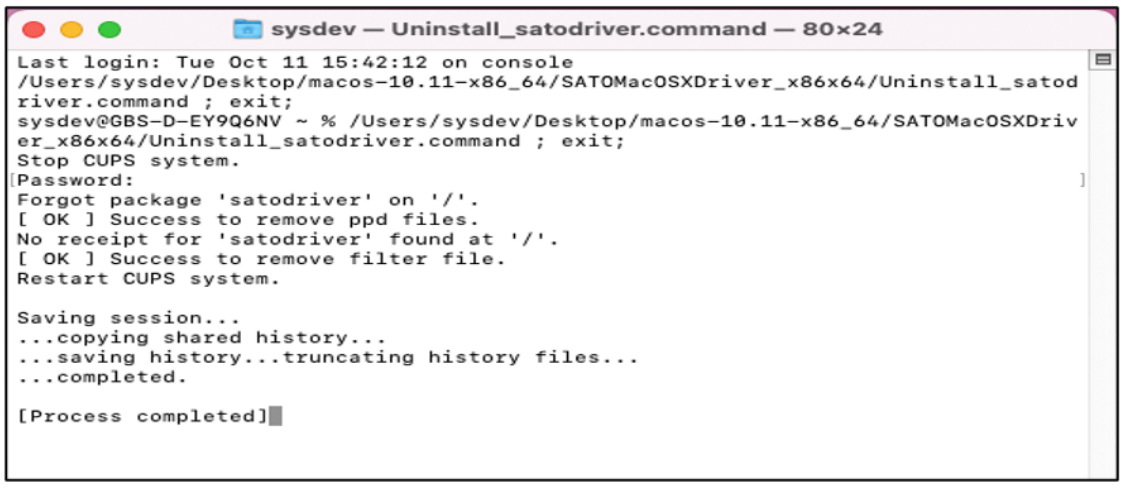
2) Double-click Uninstall satodriver.command file to run the command.

3) Enter your password when prompted. Press **ENTER** key to continue.



Note: Password will not be shown.

4) Upon the correct password being entered, the below message strings are shown.



5) To confirm if the driver has been deleted, you can run the command again. The below message strings indicate the driver files are not in this Mac machine anymore.

6) Once the driver is uninstalled, the related installed printer cannot be used. Please refer to 4.2.2 Removing the Printer to complete the process.

Managing the SATO Printer

4

4.1 Overview

Printers can be managed using the **CUPS Web Interface**, **Print and Scan (System Preferences)** and by the use the **command-line program**. The easiest way to manage the printer is through Print and Scan and the CUPS web administration because it provides a step-by-step wizard screen for you to follow.

CUPS supports devices such as Serial, USB, LAN and LPT.

Note: The screenshots may look different depending on the Mac OS X Distribution you are using.

4.2 Managing Printers from the Print & Scan (System Preferences)

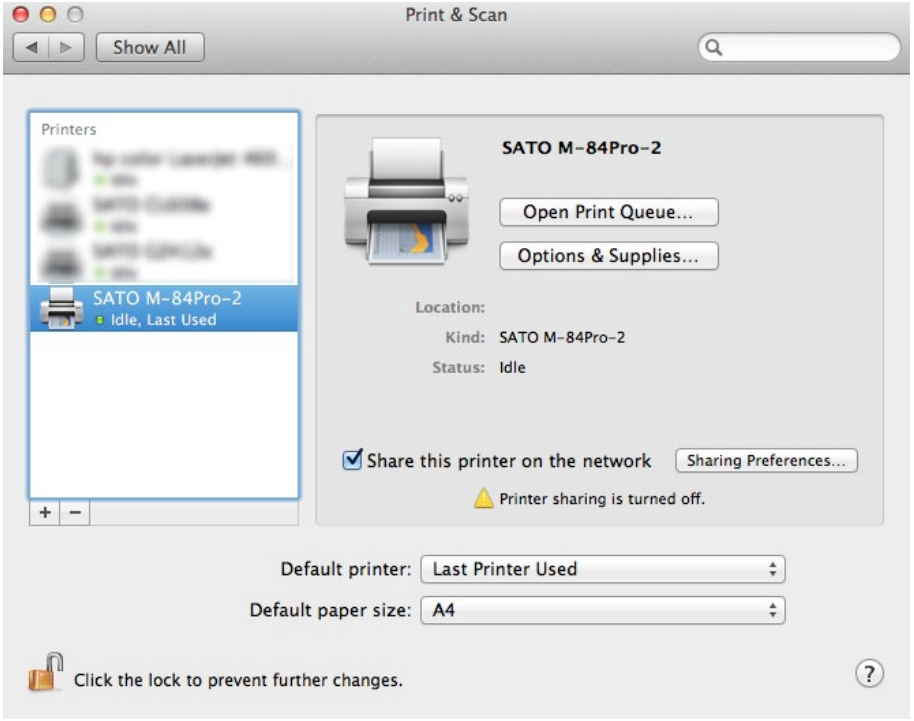
4.2.1 Adding a New Printer

To add a new printer from the **Print and Scan**, perform the following actions below:

1) Go to the **System Preferences**.

2) On the **System Preferences**, click **Print and Scan**.

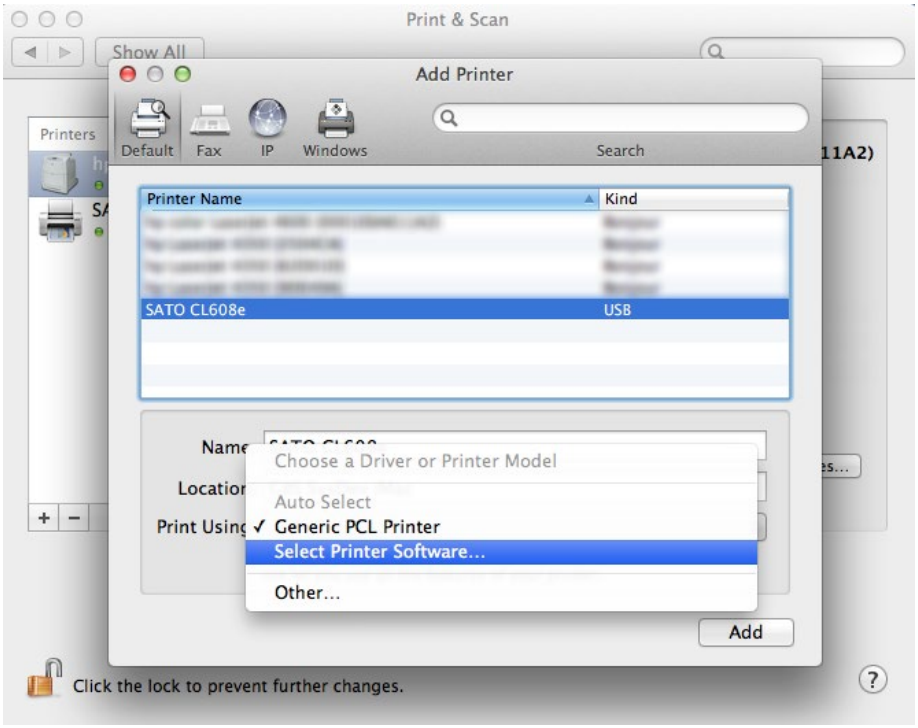
3) The system will auto-detect the printer if your printer is connected through **USB**.



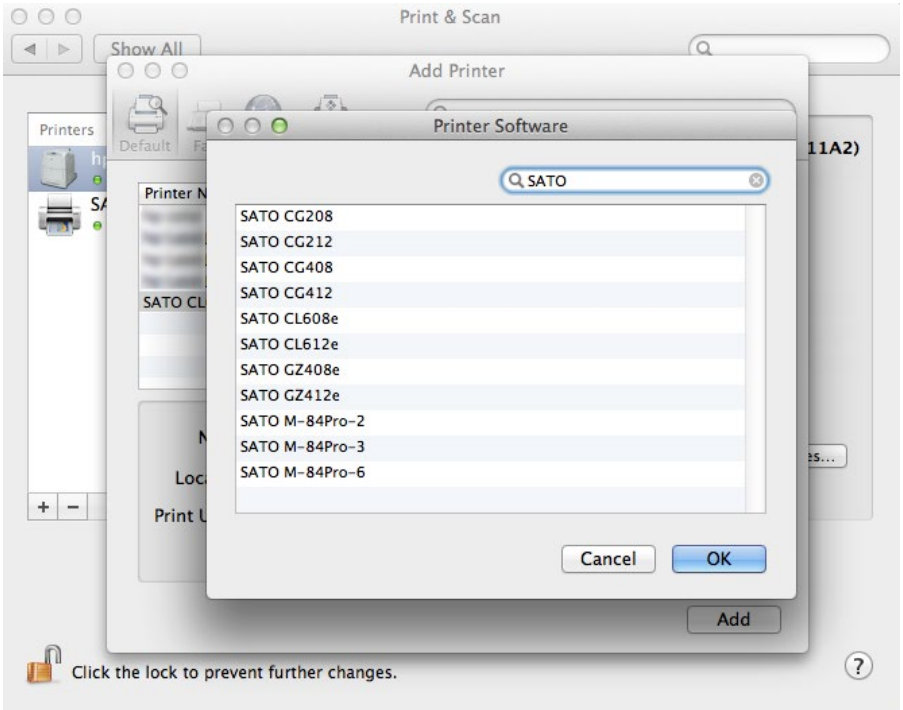
4) In case the printer has not been automatically detected or added to the list by the system, you can click the **+** button below the printer icons.

5) Select **Default** in the **Print & Scan** dialog box and select the printer in the list.

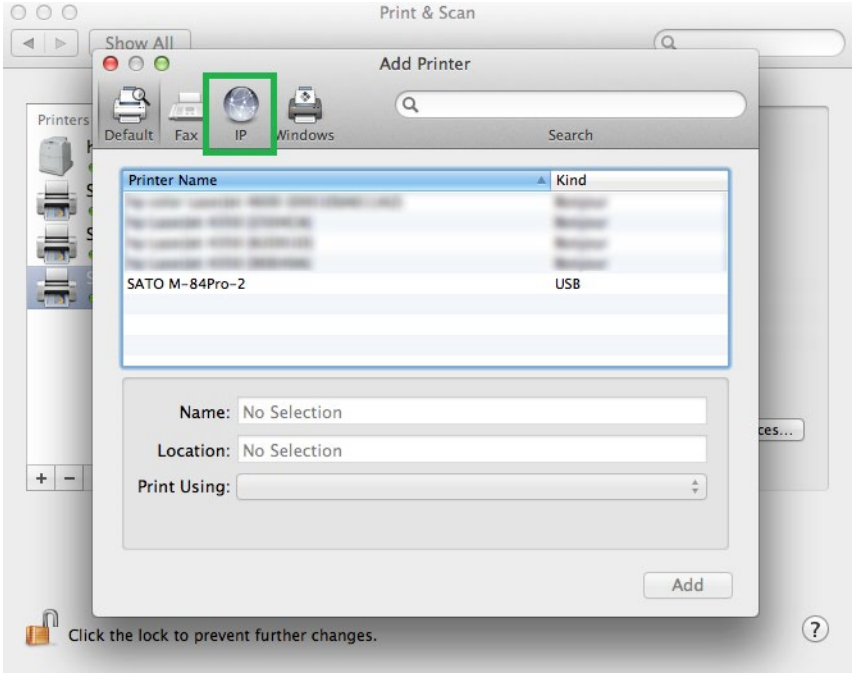
6) Please select the **Select Printer Software** in the **Print Using** dropdown. This will allow you to select the drivers for the printer.



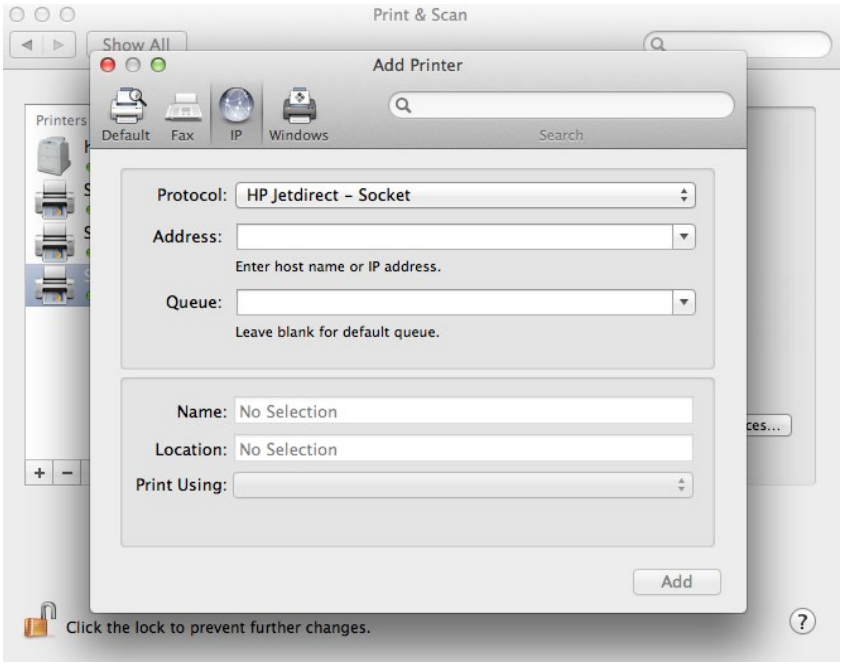
7) Click **OK** after you have selected the correct printer model on the list.



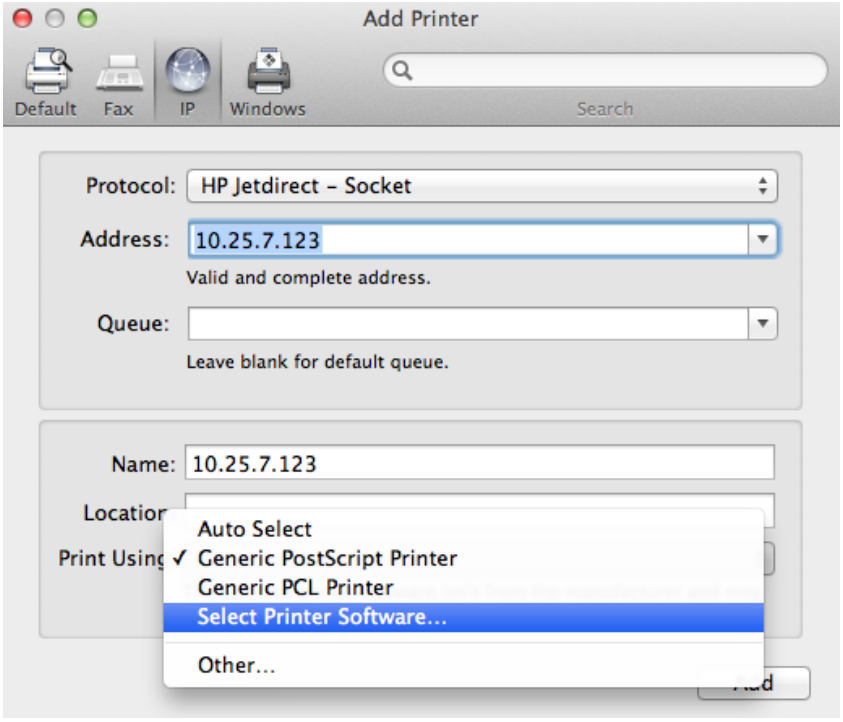
8) If you are adding a printer using the **LAN** interface, click **IP** instead of **Default** on the **Add Printer** dialog.



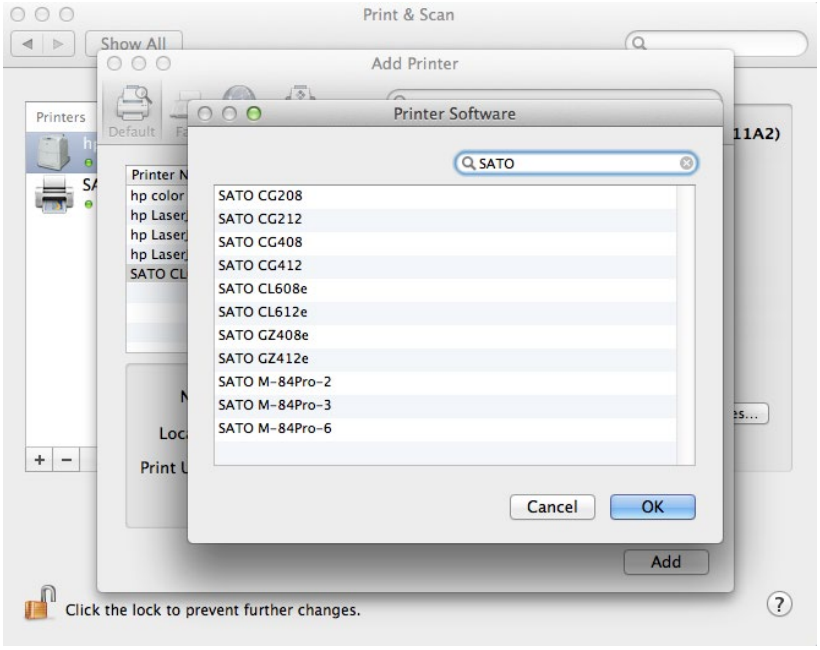
9) Enter the necessary information in the entry boxes.



10) Please select the **Select Printer Software** in the **Printer Using** dropdown. This will allow you to select the drivers for the printer.



11) Click **OK** after you have selected the correct printer model on the list.



12) Finally, click the **Add** button.

4.2.2 Removing the Printer

To remove existing printer properties, perform the following actions below:

1) Go to **System Preferences**.

2) On the **System Preferences**, click **Print and Scan**.

3) Select the printer on the list and click the **-** button below the Printers.

4.3 Managing Printers from the CUPS Web Interface

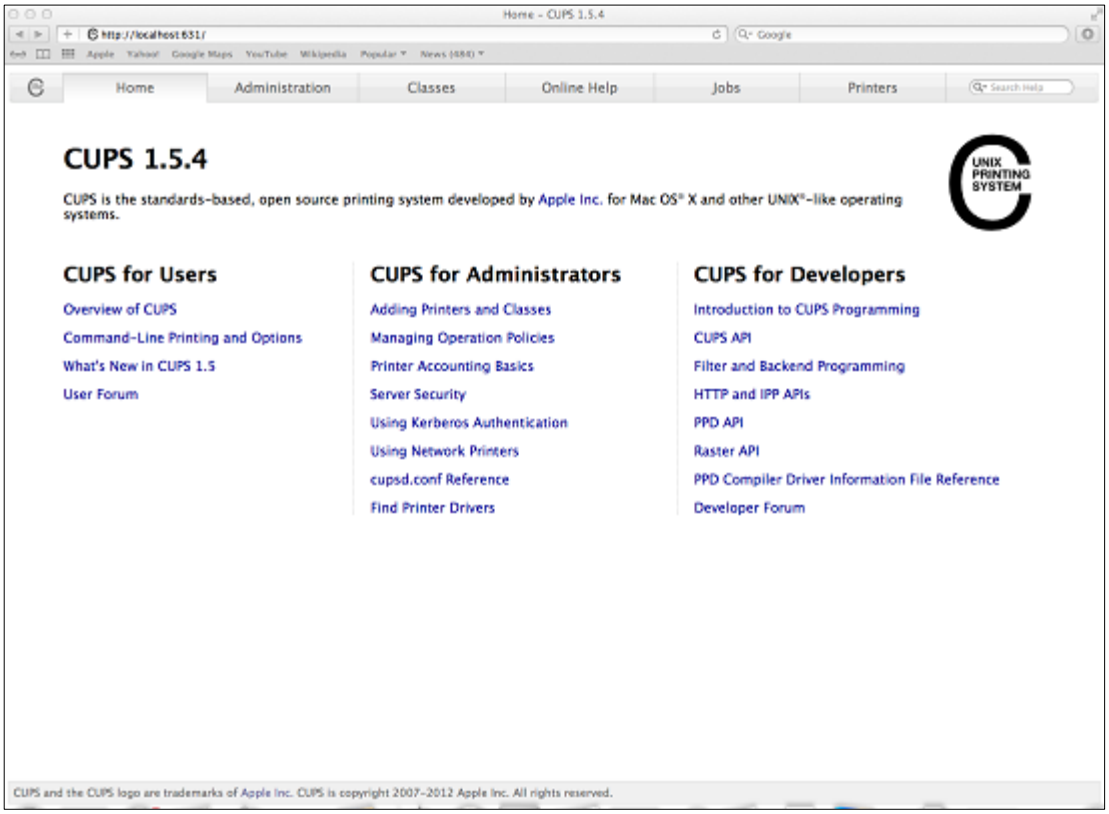
All Mac OS X system with CUPS installed has a **CUPS Web Interface** wherein users can manage printers in the system.

Note: You may receive a 'Web Interface is Disabled" warning when you access the CUPS Web Interface (http://localhost:631/"). This is a security feature Apple introduced from OS 10.7 onwards. You can turn on the local Mac OS X CUPS web interface by going into Terminal. Enter in the command ***sudo cupsctl WebInterface=yes.***

4.3.1 Adding a New Printer

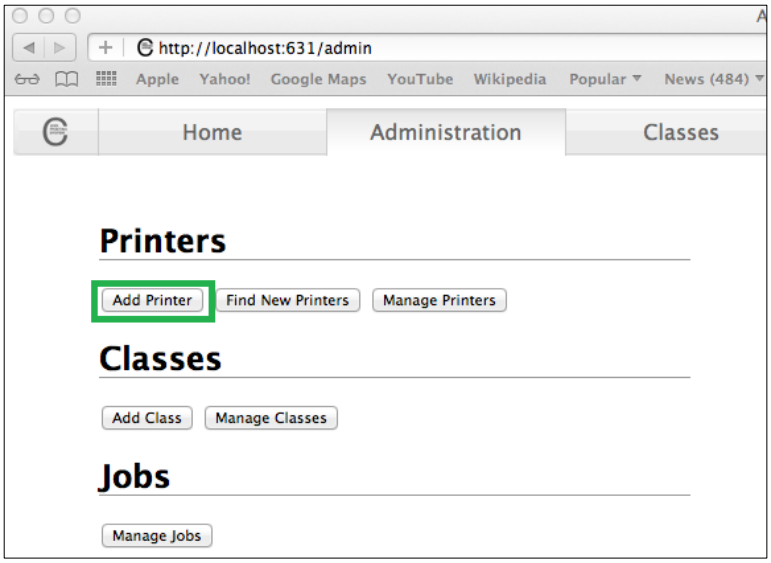
To add a new printer from the **CUPS Web Interface**, perform the following actions below:

1) Open a web browser (example: Safari) and type in "http://localhost:631/" in the address bar.

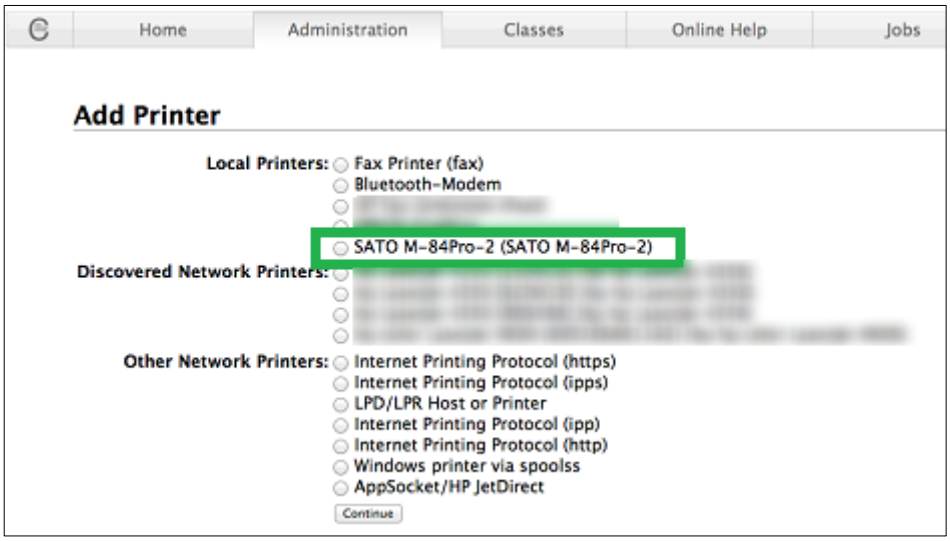


2) On the **Home** page, click **Administration** on the top of the menu.

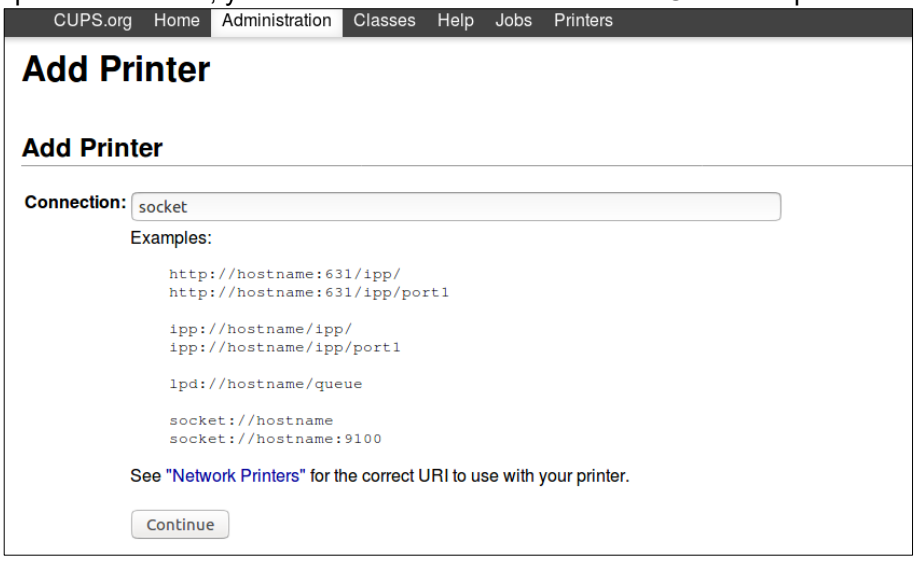
3) Click **Add Printers**.



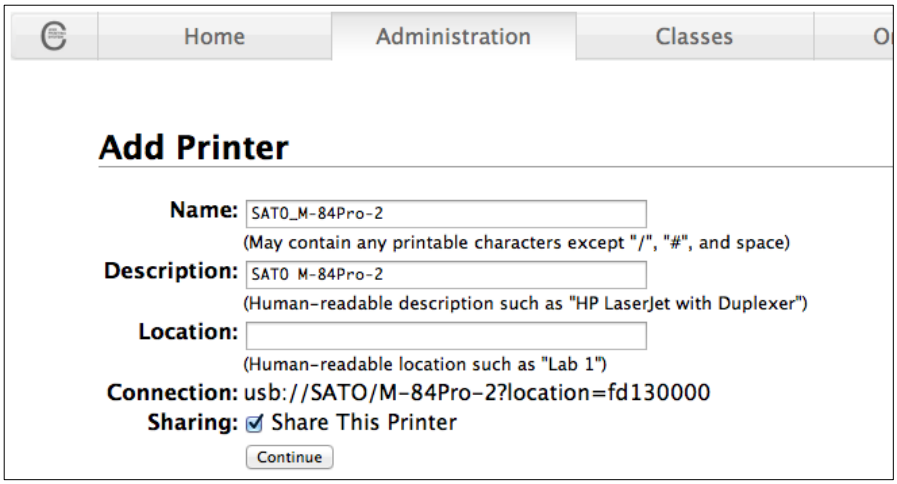
7) Select the printer you wish to add and click **Continue**.



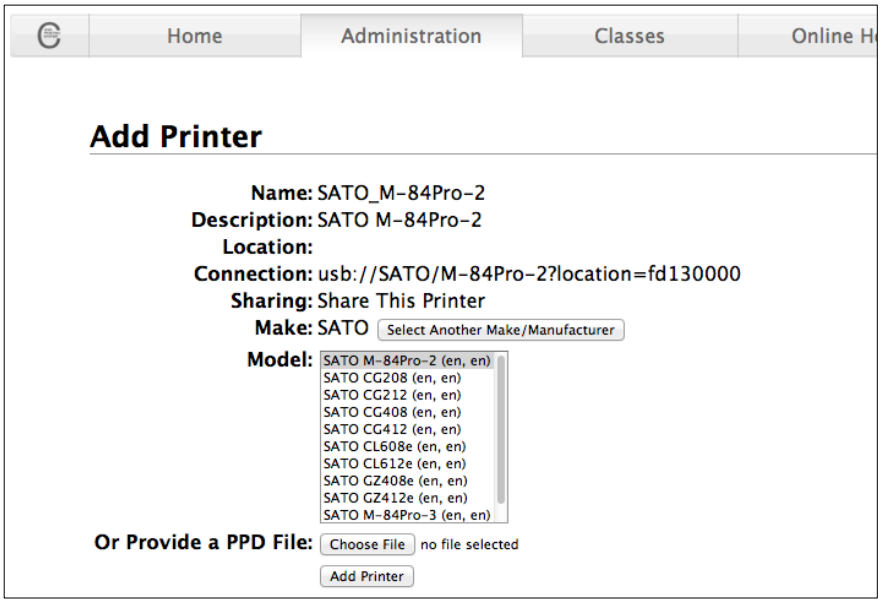
Alternatively, if you cannot detect a printer, you can choose any of the “Other Network Printers” options. After that, you will be asked to enter the Device URI of the printer.



8) Printer information will be loaded on the page. Modify the information depending on your needs.



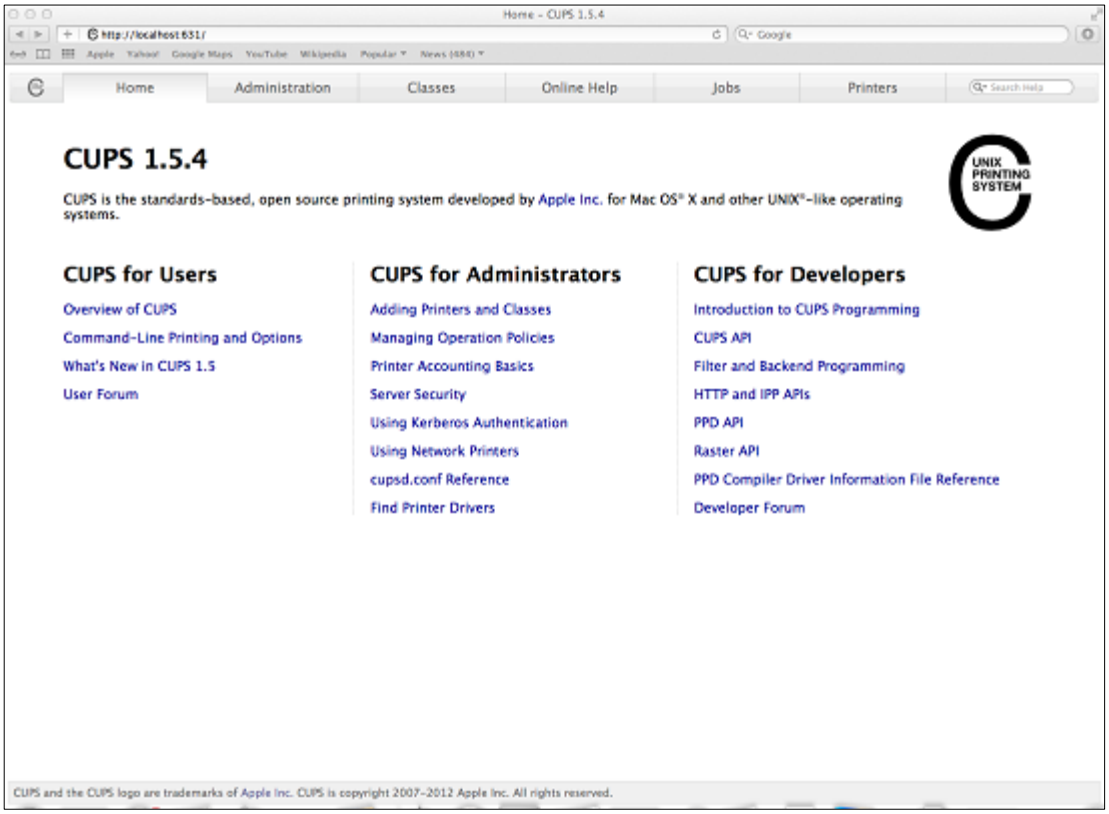
9) CUPS will detect the printer model that best describes the printer. Click **Add** to complete the process. If the selected model is incorrect, you can manually select the printer from the list.



4.3.2 Modify Printers

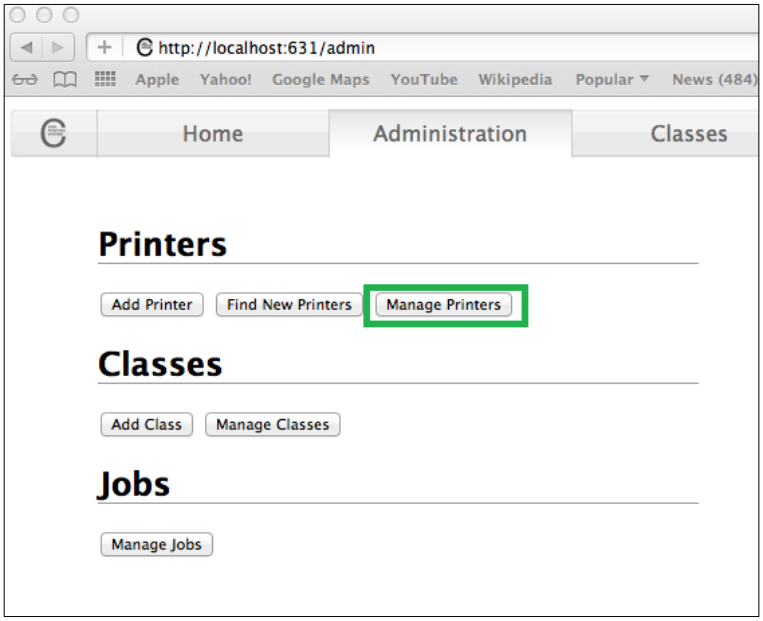
To modify an existing printer, perform the following actions below:

1) Open a web browser (example: Safari) and type in "http://localhost:631/" in the address bar.

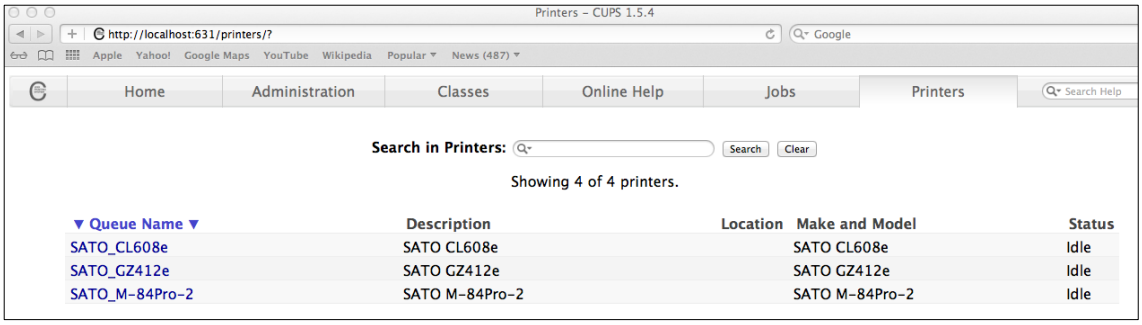


2) On the **Home** page, click **Administration** on the top of the menu.

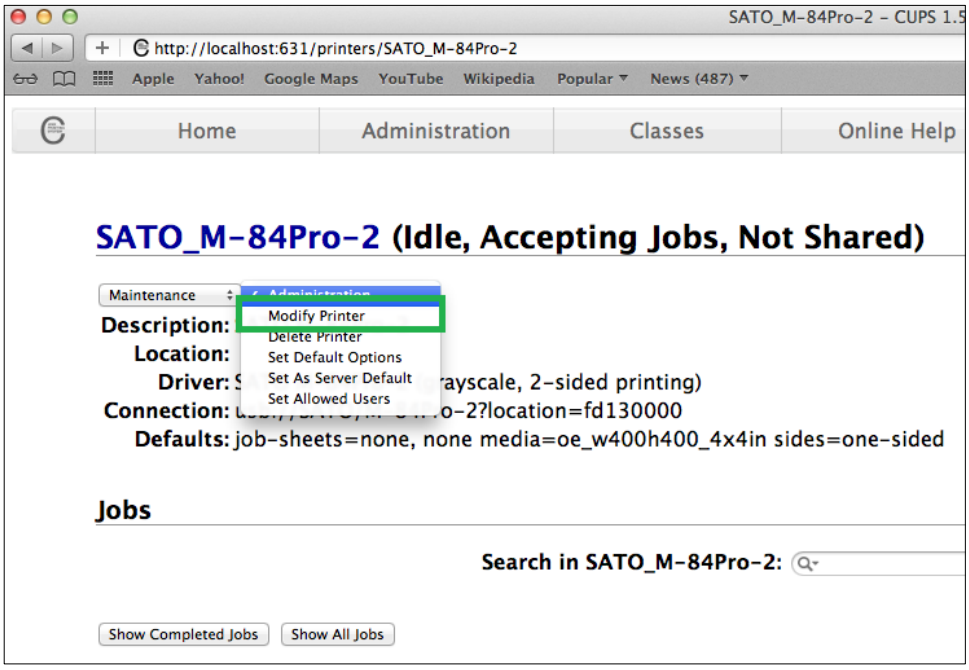
3) Click **Manage Printers**.



4) Select the printer you wish to modify on the list.



5) On the Administration dropdown, select **Modify Printer**.



6) Select the printer you wish to modify and click **Continue**.

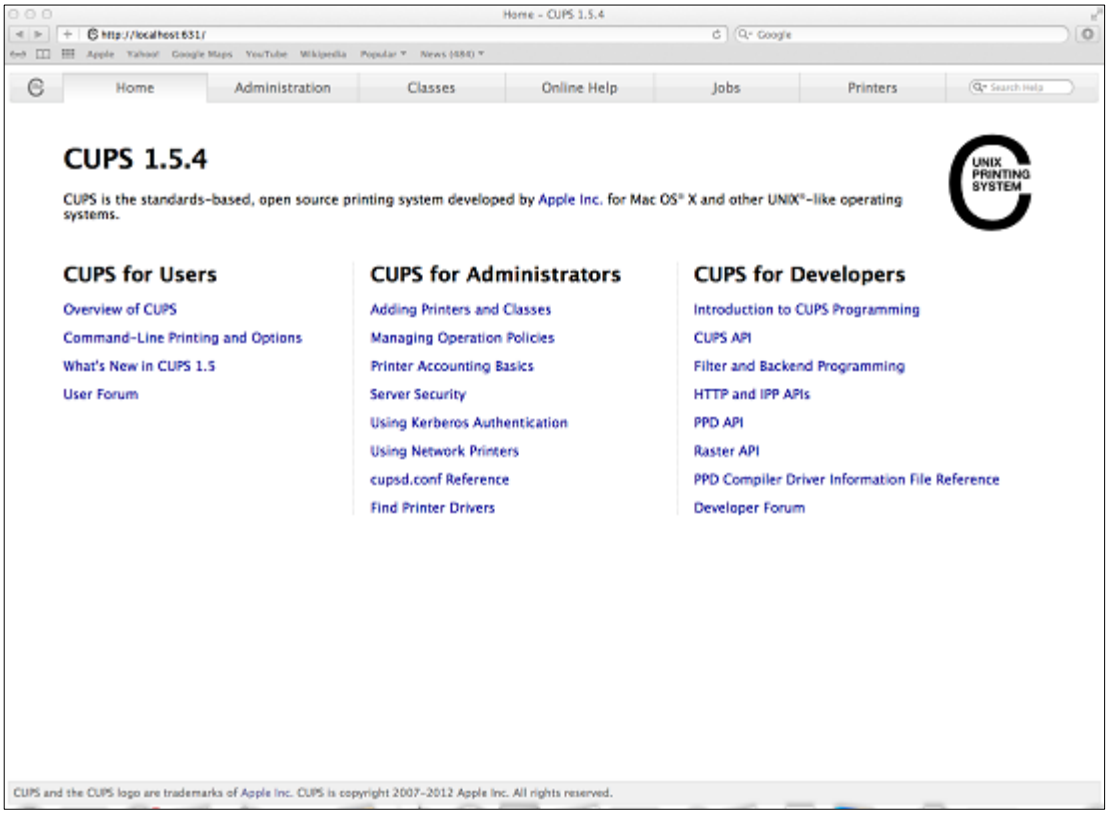
7) Printer information will be loaded on the page. Modify the information depending on your needs.

8) CUPS will detect the printer model that best describes the printer. Click **Modify Printer** to complete the process.

4.3.3 Removing the Printer

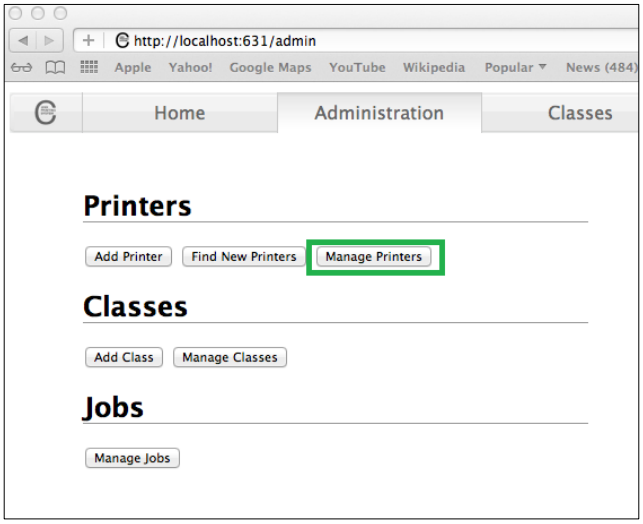
To remove existing printer properties, perform the following actions below:

1) Open a web browser (example: Safari) and type in "http://localhost:631/" in the address bar.

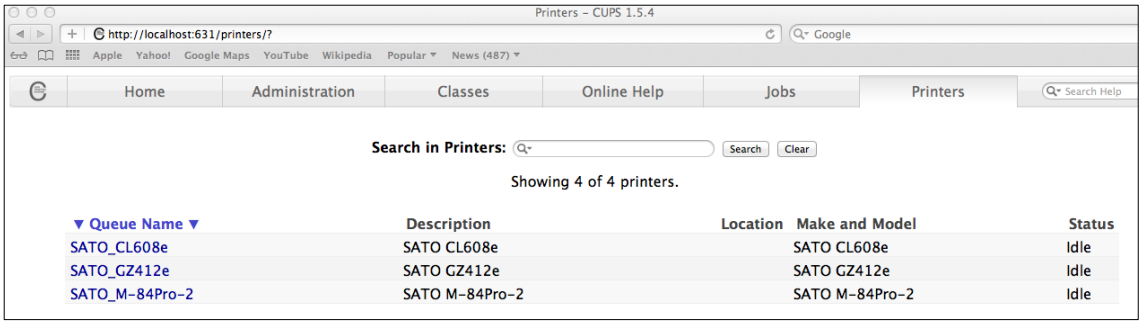


2) On the **Home** page, click **Administration** on the top of the menu.

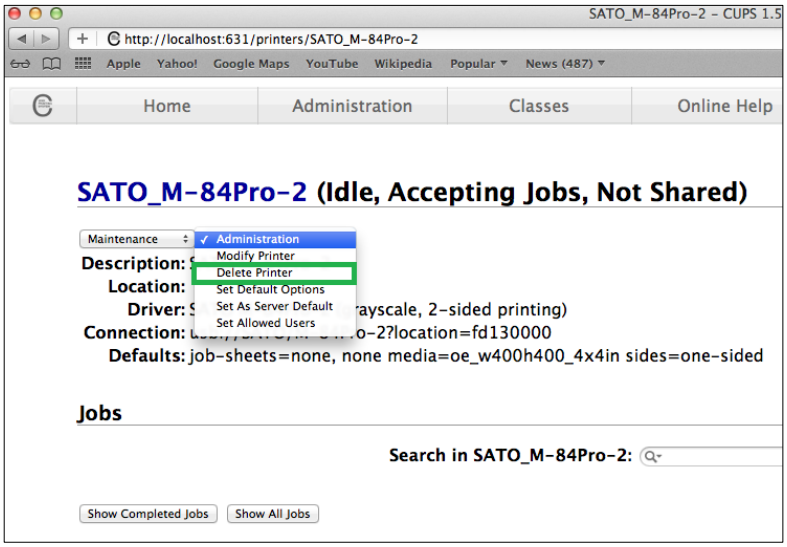
3) Click **Manage Printers**.



4) Select the printer you wish to modify on the list.



5) On the Administration dropdown, select **Delete Printer**.

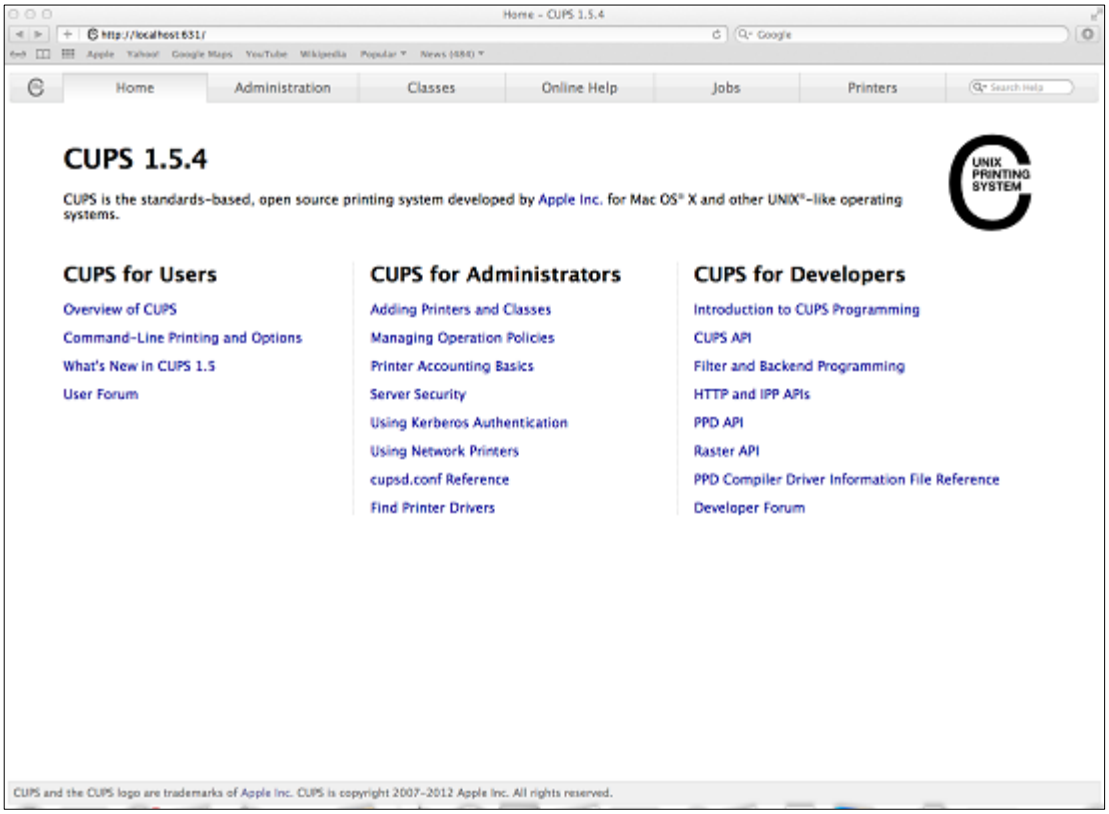


6) Click **Delete Printer** to confirm.

4.3.4 Setting Default Printer Options

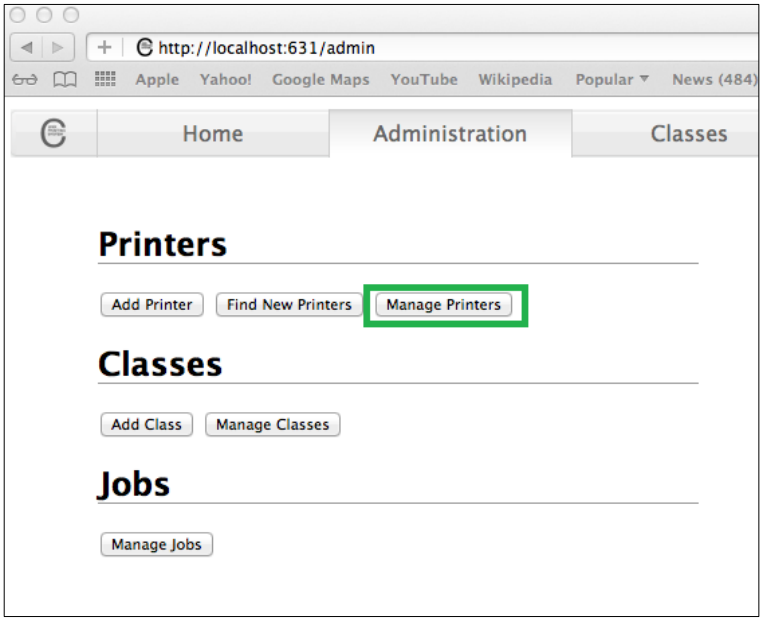
To set the default printing options perform the following actions below:

1) Open a web browser (example: Safari) and type in "http://localhost:631/" in the address bar.

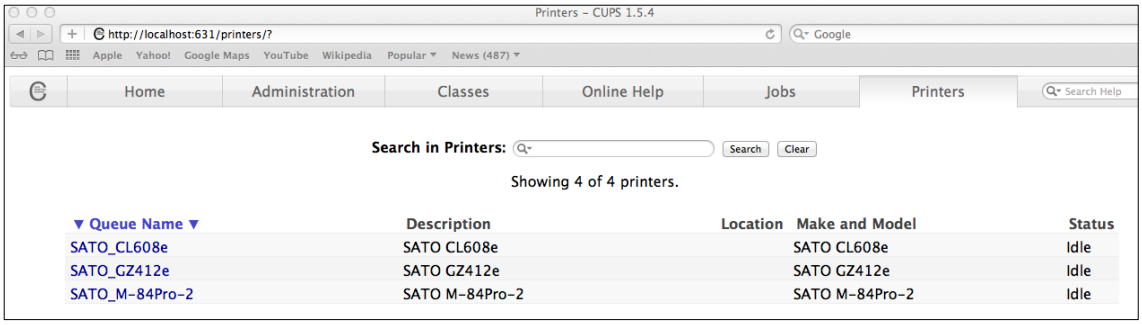


2) On the **Home** page, click **Administration** on the top of the menu.

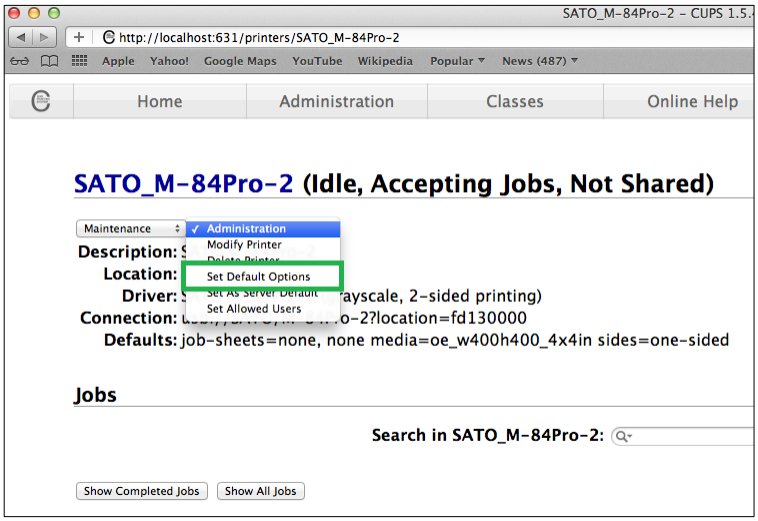
3) Click **Manage Printers**.



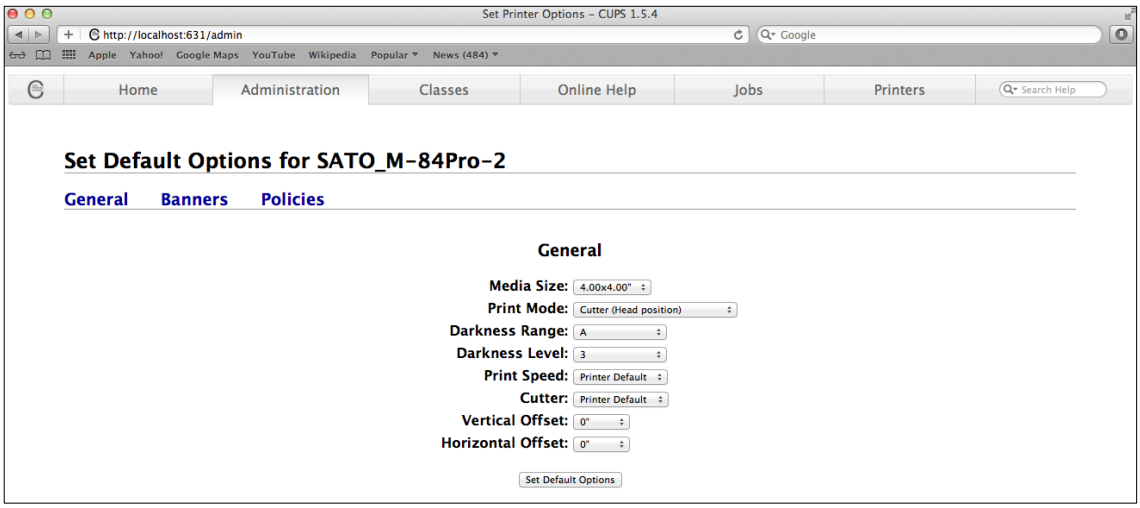
4) Select the printer you wish to modify on the list.



5) On the Administration dropdown, select **Modify Printer**.



6) Change the default option values and click the **Set Default Options** button to save changes.



4.4 Managing Printers from the Command Line

To find out more information on how to manage printers from the command-line please refer to the CUPS documentation at the address below:
http://www.cups.org/documentation.php/doc-1.6/options.html

4.5 Troubleshooting

The best way to troubleshoot the problem is to check the log file. The procedures are as follows:

1) Switch on the "debug" mode in the LogLevel directive for your CUPS daemon.

2) Edit */etc/cups/cupsd.conf* to have the line "LogLevel debug".

3) After changing the setting, restart the CUPS daemon by typing *" /etc/software/init.d/cups start"* on the command-line.

4) Once the "LogLevel" has been modified, print a document and locate the log file generated. It can be found on */var/log/cups/error_log* directory of your machine.

5) Open the logs generated. This will give you an idea of what are the causes of the problems.

Note: Alternatively, you can also do it using the CUPS web interface.

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