Software Manual

Linux

Supported Models

- ***TSP100 Series***
- ***TSP650II Series***
- ***TSP700II Series***
- ***TSP800II Series***
- ***mPOP Series***
- ***mC-Print3 Series***
- ***mC-Print2 Series***

Rev. 6.5

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Table of Contents

1. Installation/Uninstallation Procedures 5

1.1 Installing Printer Driver 5

1.2 Registering the Printer 7

1.3. Uninstallation Procedures 21

2. Setting the Printer Functions 23

2.1 Function List 25

3. Guidelines for Using an Ethernet Environment 34

3.1 Setting a Temporary IP Address 34

3.2 Setting the IP Address (TELNET Utility) 35

4. Guidelines for Using the lpr Command 37

4.1 Function List 38

5. Revision History 41

Introduction

This manual explains how to operate the CUPS printer driver using ubunts 18.04LTS as an example. Images provided are different for other versions of ubunts or other distributions, but the same procedures can be used.

The printer's IP address must be set in advance to use a printer that supports LAN using this driver. If your LAN environment does not allow acquisition of an IP address from a DHCP server, set the IP address to the printer in advance. See 3. Guidelines for Using an Ethernet Environment for details on how to set the IP address for the printer.

Test Environment

Distribution	Version
Red Hat Enterprise Linuxb 32bit/64bit	7.5
CentOS 32bit/64bit	7.5
openSUSE 32bit/64bit	15
Fedora 32bit/64bit	28
ubuntu 32bit/64bit	18.04 LTS

When using a Bluetooth Interface :

Depending on the distribution used and its version, the defaults may be configured so that SELinux restricts Bluetooth communication and the Bluetooth printer may not operate. Change the SELinux settings according to the environment of use.

1. Installation/Uninstallation Procedures

1.1 Installing Printer Driver

To install the driver, proceed as follows.

> ***Caution*** : Before installing the driver, connect the interface cable to the printer and turn on the power. See the hardware manual for details on how to connect the interface cable.
> The new version sometimes cannot be installed if an older version remains installed on your system. In such cases, see section 1.3 to uninstall the old version before installing a new version.

1. Startup the terminal.
2. Use the "su" command to enable root account privileges.
   $ su
3. Expand the starcupsdrv-x.xx.x_linux_yyyymmdd.tar.gz file downloaded via the website or included in the Linux/Cups folder of the attached CD-ROM.
4. Navigate to the directory containing the following rpm files.

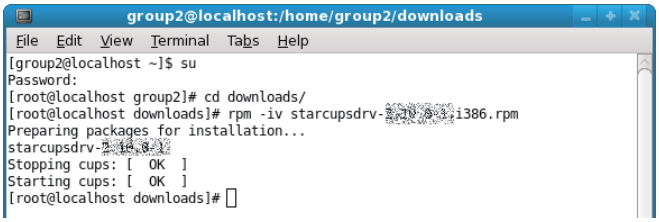
32bit OS	starcupsdrv-x.x.x-x.i386.rpm
64bit OS	starcupsdrv-x.x.x-x.x86_64.rpm

5. Run the rpm command using the 'i' and 'v' switches and the name of the RPM file.

32bit OS	rpm -iv starcupsdrv-x.x.x-x.i386.rpm
64bit OS	rpm -iv starcupsdrv-x.x.x-x.x86_64.rpm

The RPM has been installed.

< For 32bit OS >



When using a Bluetooth Interface proceed as follows to install.

Necessary package:

- "bluez-cups"

Install command:
(use the terminal command with administrative privileges.)
yum install bluez-cups

◆ ubuntu installation procedures

It is necessary to install from the source code.
Necessary package

- "gcc"
- "libcups2-dev"
- "libcupsimage2-dev"
- "bluez-cups" (When using a Bluetooth interface)

After making sure that your PC is connected to the internet, perform the following operation to install the three packages above.

```
# sudo apt-get update
# sudo apt-get install gcc
# sudo apt-get install libcups2-dev
# sudo apt-get install libcupsimage2-dev
```

When using a Bluetooth Interface

```
# apt-get install bluez-cups
```

After downloading the starcupsdrv-x.xx.x_linux_yyyymmdd.tar.gz file via the website, copy the file to your PC and perform the following operation.

```
# tar xzvf starcupsdrv-x.xx.x_linux_yyyymmdd.tar.gz
# cd starcupsdrv-x.xx.x_linux
# cd SourceCode
# tar xzvf starcupsdrv-src-x.xx.x.tar.gz
# cd starcupsdrv
# make
# make install
```

Note: The x.x.x-x is module version.
The yyyymmdd is the 8 digit date on which the package was release.

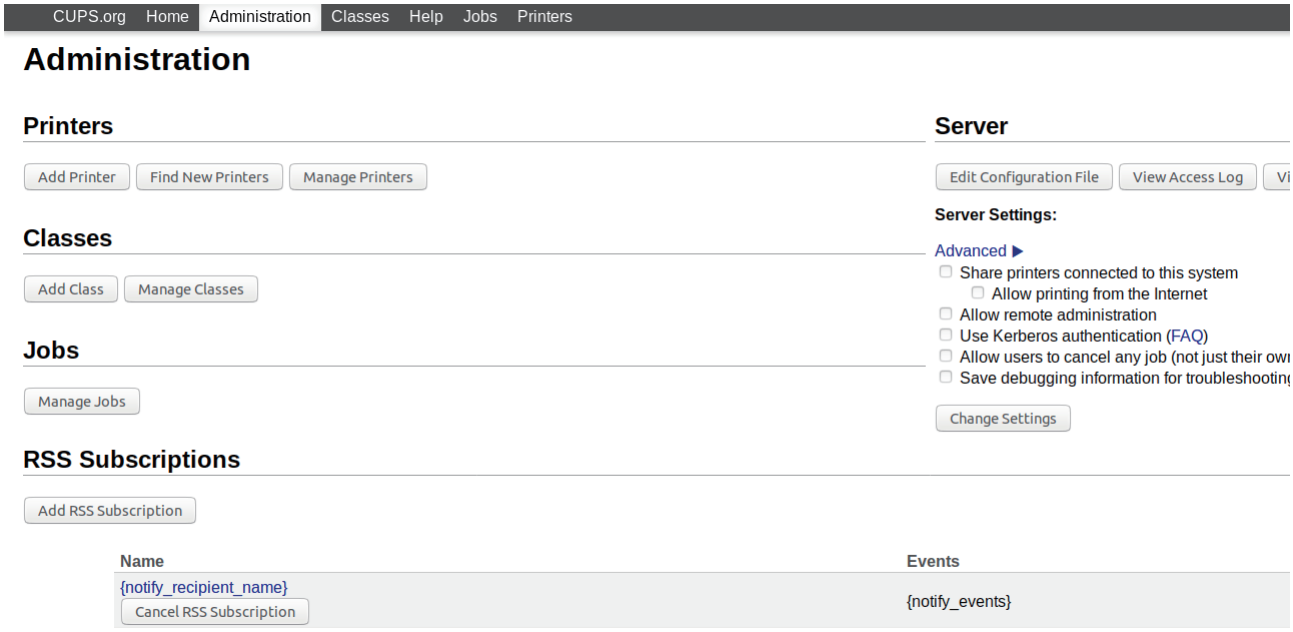
Next, enter the CUPS management screen (http://localhost:631/admin).
(Refer to section 1.2. Registering the Printer for details.)

1.2 Registering the Printer

Procedures for registering the printer differ according to the type of interface you use. See the page relating to your environment.

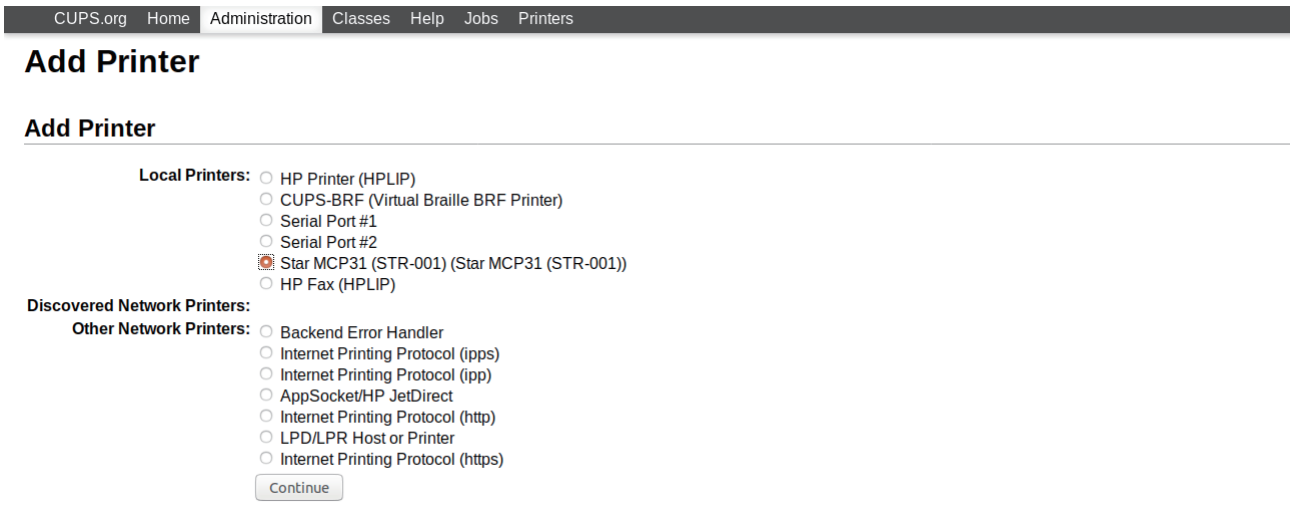
1.2.1 When Using a USB Interface

1. Connect the printer to PC, and then turn on the printer's power switch.
2. Open your favorite web browser and navigate to "http://localhost:631/admin".

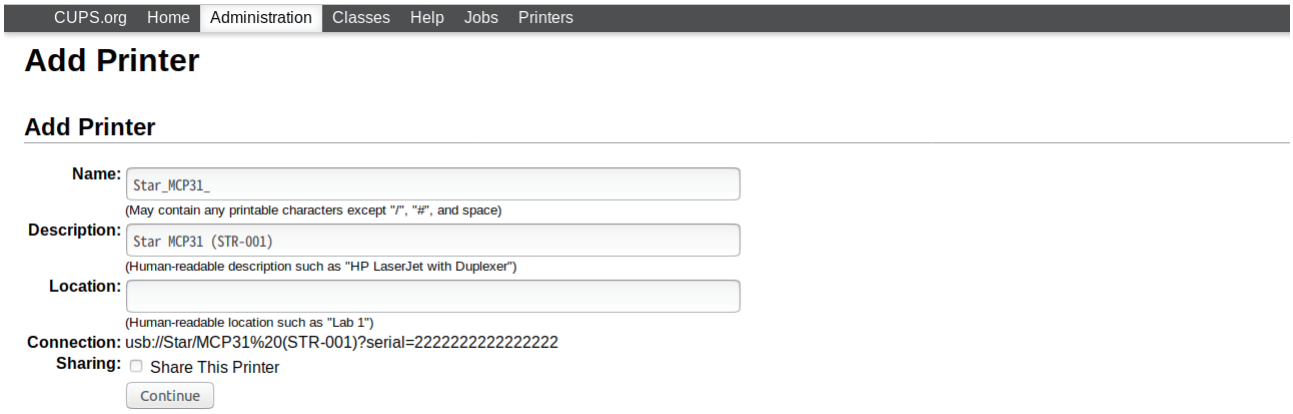


3. Click "Add Printer".
   Note: When a dialog box is displayed requesting certification, enter the root password and press [Yes].

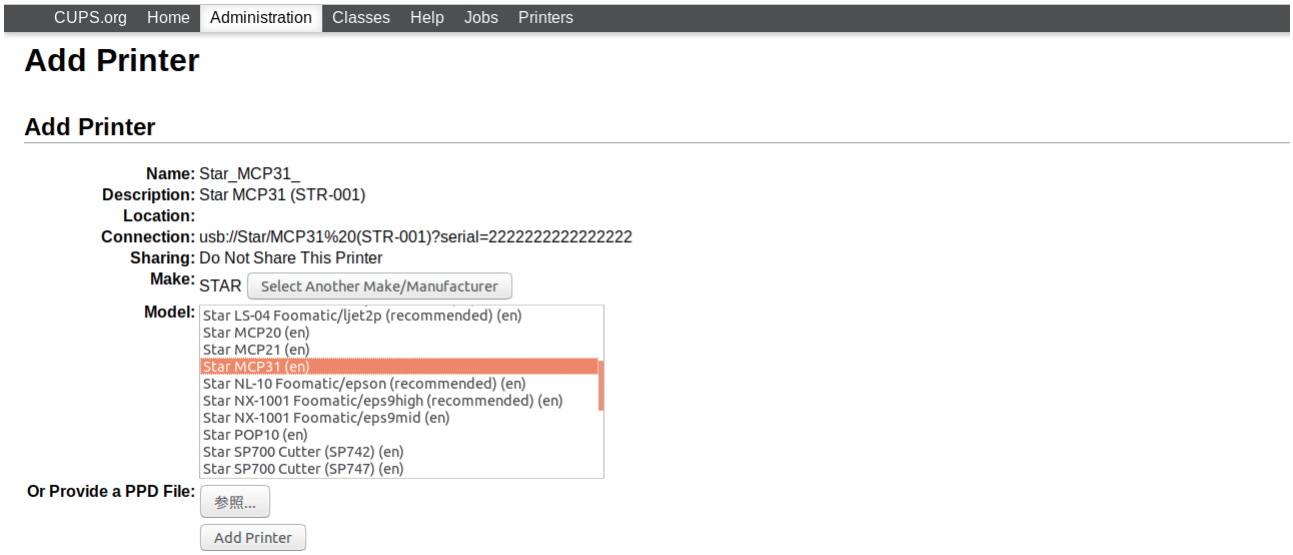
4. Select the device to which the printer is connected. Then click "Continue".



5. In the Add Printer screen, enter "Name:", "Description:" and "Location". Then click "Continue". Location and Description can be left blank.



6. Select the printer model/driver. Then click "Add Printer".



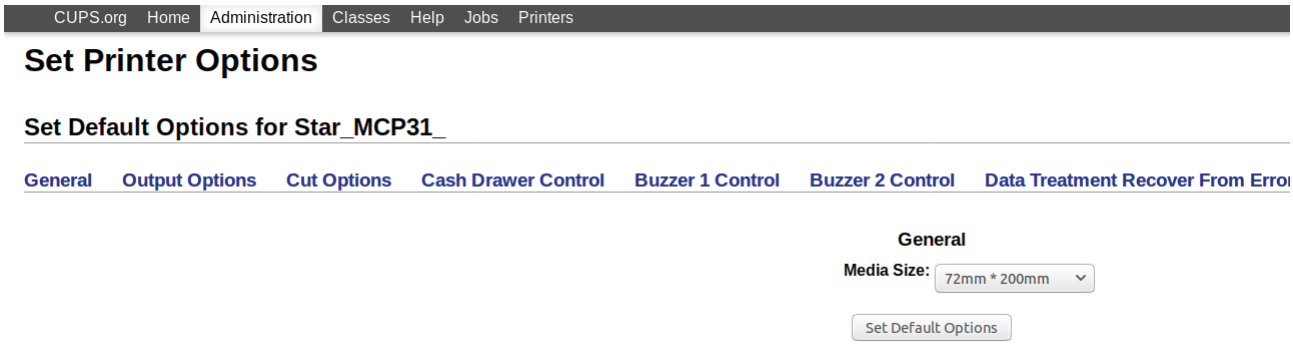
Note : In some versions of CUPS, Star model name is not displayed in the model/driver pull-down menu. In such cases, after performing the following, return to the previous page and reregister the printer.

$ su
# cp -fr /usr/share/cups/model/star /usr/share/ppd/star

Point! The correspondence table for printer models and drivers is shown below.

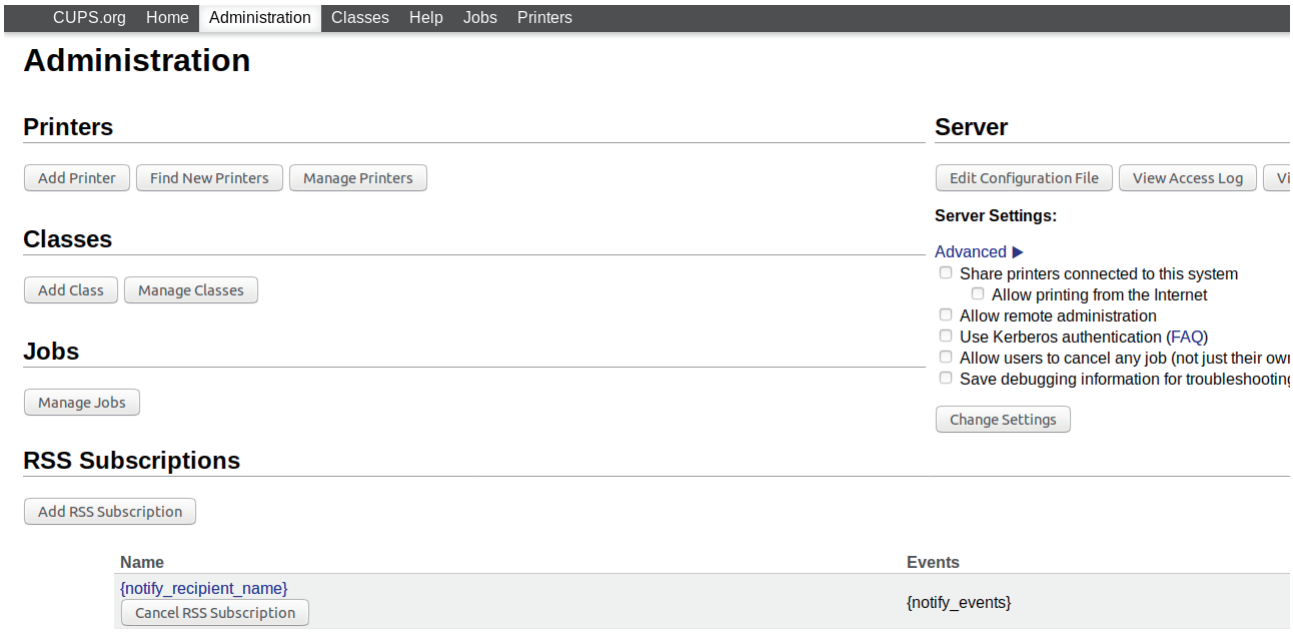
Series	Model	Driver
TSP100 Series	TSP113U, TSP113GT	Star TSP100 Tear Bar
	TSP143U, TSP143IIIBU	Star TSP100 Cutter
TSP650II Series	TSP654II	Star TSP650 Cutter
TSP700II Series	TSP743II	Star TSP700II
TSP800II Series	TSP847II	Star TSP800II
mPOP Series	POP10	Star POP10
mC-Print3 Series	MCP31L, MCP31LB	Star MCP31
mC-Print2 Series	MCP20, MCP20B	Star MCP20
	MCP21LB	Star MCP21

This completes printer installation and registration.



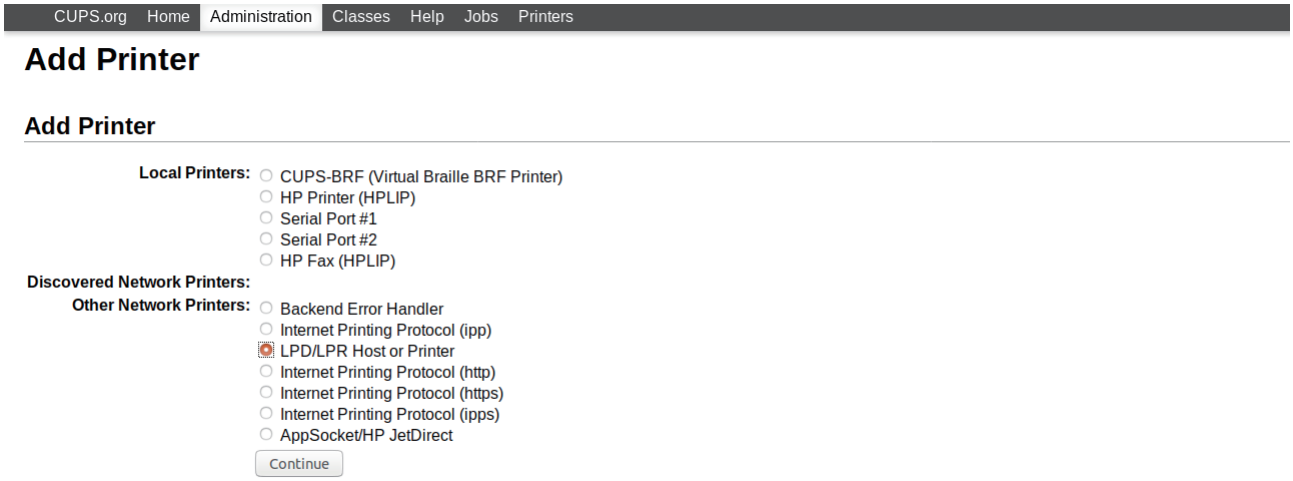
1.2.2 With the Ethernet Interface

1. Open your favorite web browser and navigate to "http://localhost:631/admin".

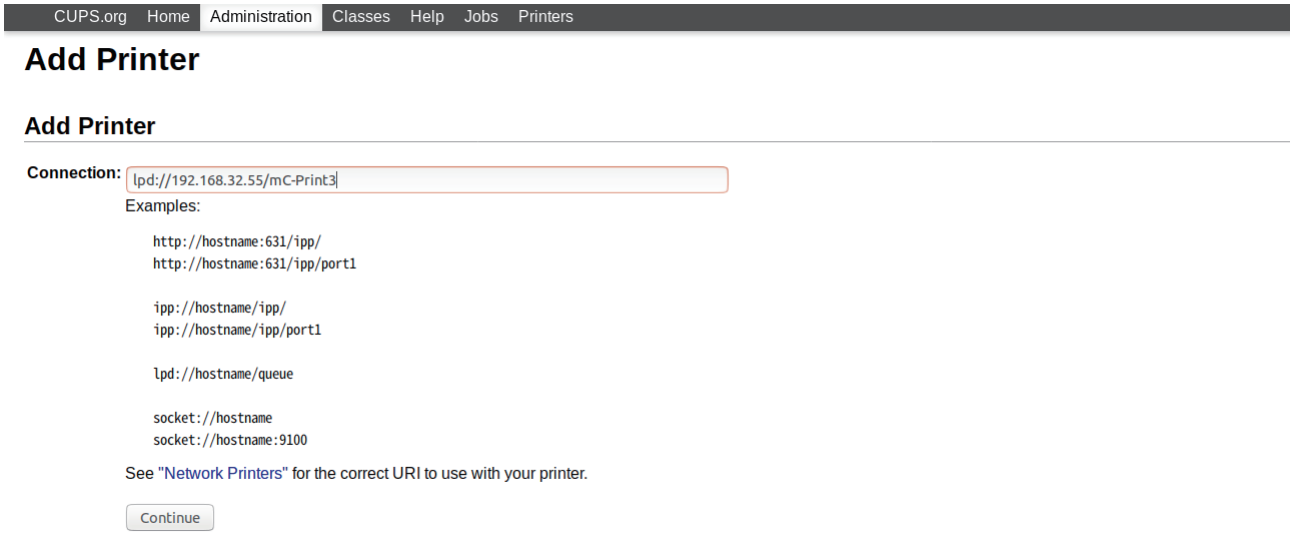


2. Click "Add Printer".
   Note: When a dialog box is displayed requesting certification, enter the root password and press [Yes].

3. Select the device (LPD/LPR HOST or Printer) to which the printer is connected. Then click "Continue".



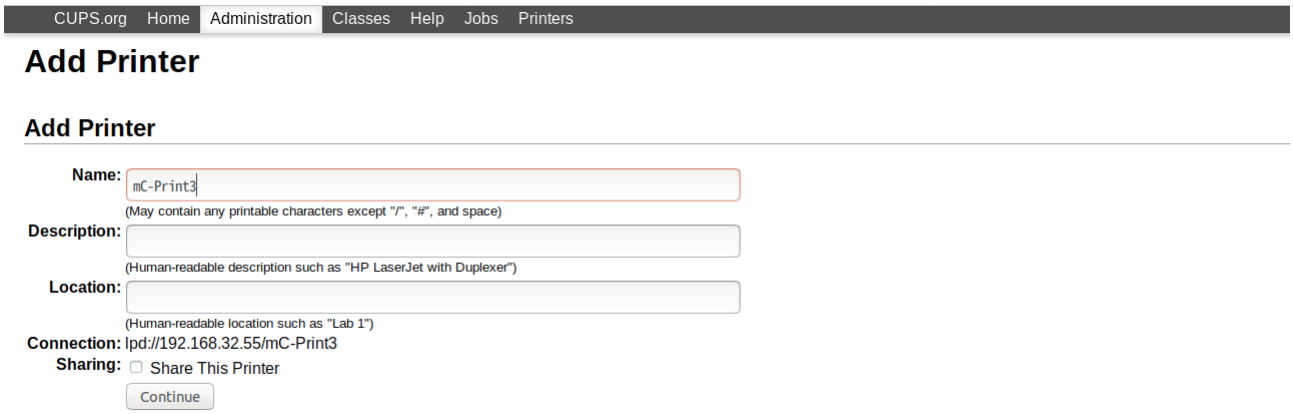
4. Specify the printer device on the URI.
   Specify the Device URI for the LPD protocols as shown below.
   lpd://<host name>/<queue-name>
   Host name is the IP address of the printer to set. (Check using self-print.)
   After entering, click "Continue".



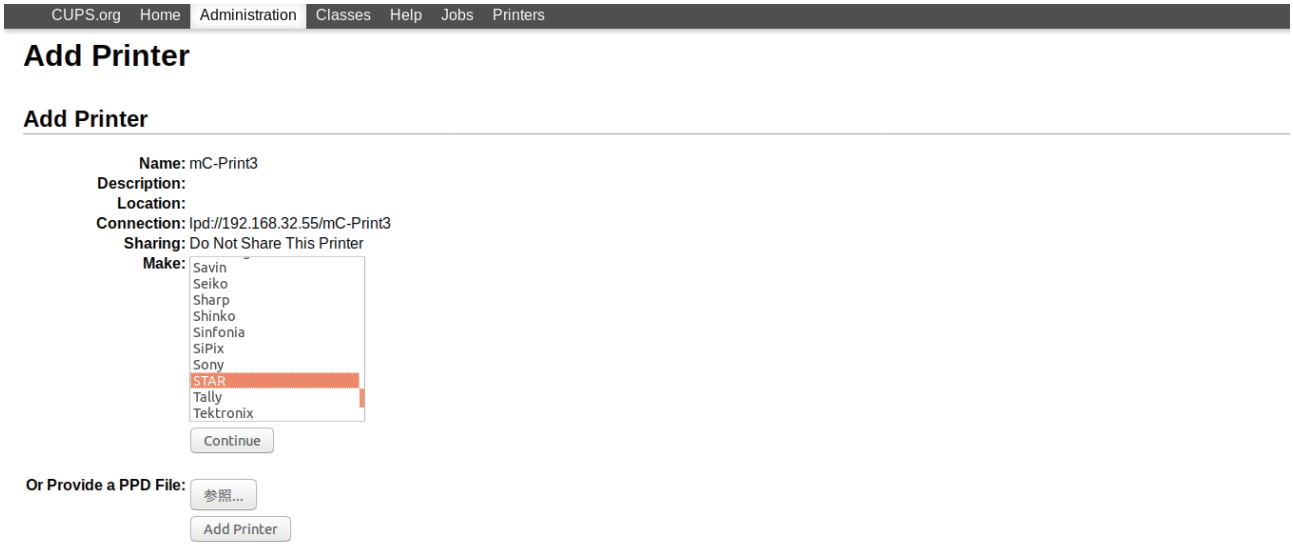
Point! When using port 9100, set the following.

Device: AppSocket/HP Jet Direct
Device URI: [IP address of printer being set] : 9100
For example) **socket://192.168.32.228 : 9100**

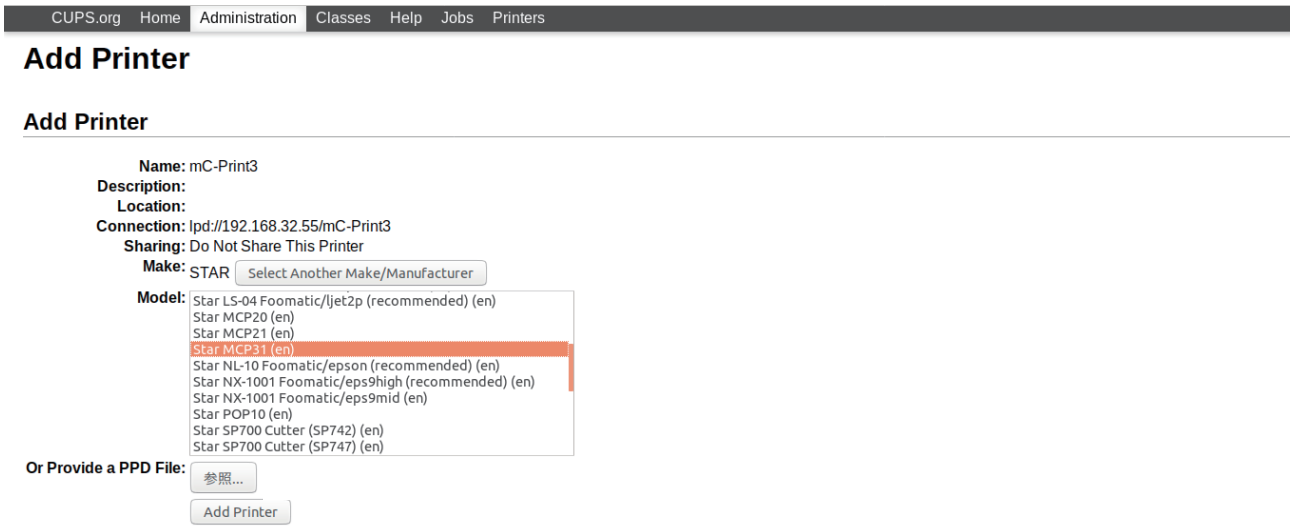
5. In the Add Printer screen, enter 'Name:', 'Location:' and 'Description:'. Then click "Continue".
   Location, and Description can be left blank.



6. Select "STAR" as the Make. Then click “Continue”.



7. Select the printer model/driver. Then click “Add Printer”.



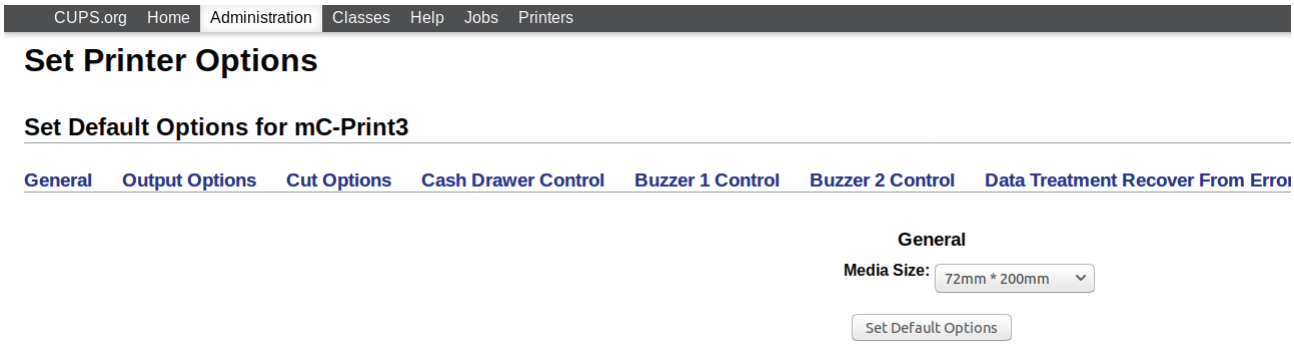
Note : In some versions of CUPS, Star model name is not displayed in the model/driver pull-down menu. In such cases, after performing the following, return to the previous page and reregister the printer.

$ su
# cp -fr /usr/share/cups/model/star /usr/share/ppd/star

Point! The correspondence table for printer models and drivers is shown below.

Series	Model	Driver
TSP100 Series	TSP113LAN	Star TSP100 Tear Bar
	TSP143LAN, TSP143IIIW, TSP143IIILAN	Star TSP100 Cutter
TSP650II Series	TSP654II	Star TSP650 Cutter
TSP700II Series	TSP743II	Star TSP700II
TSP800II Series	TSP847II	Star TSP800II
mC-Print3 Series	MCP31L, MCP31LB	Star MCP31
mC-Print2 Series	MCP20, MCP20B	Star MCP20
	MCP21LB	Star MCP21

This completes printer installation and registration.



1.2.3 With the Bluetooth Interface

1 To pair them with the bluetooth printer, proceed as follows.

1) Turn the printer power ON.

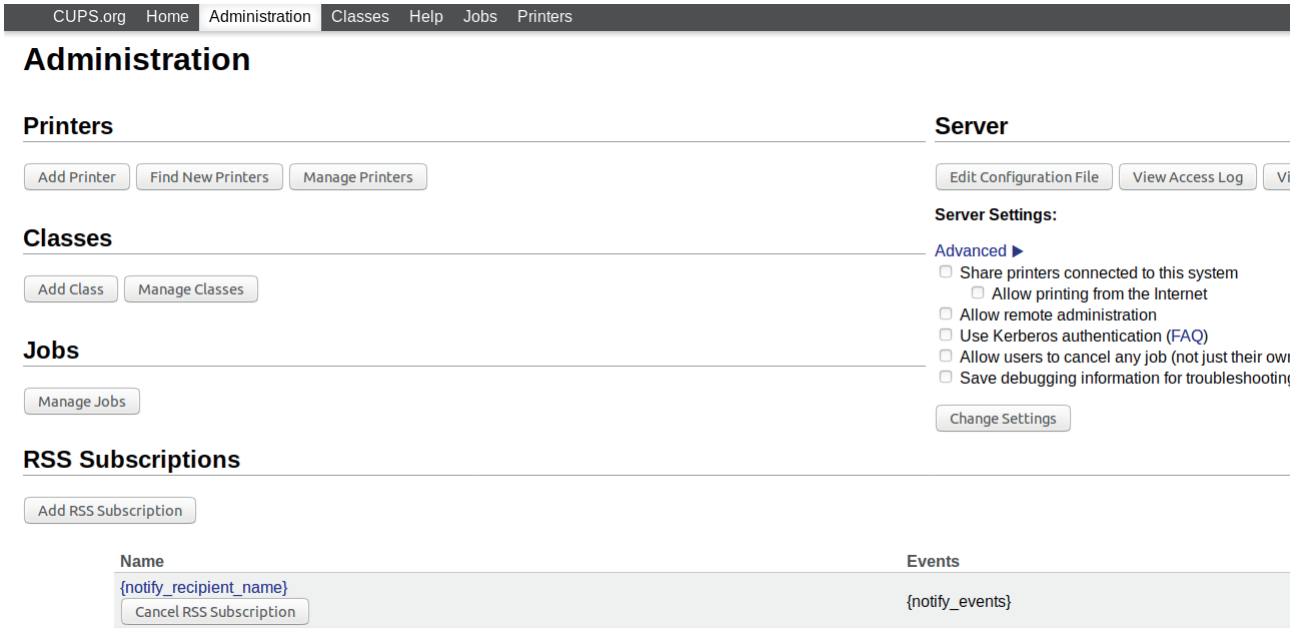
2) Hold down the button of the bluetooth card for more than 10 seconds to set the pairing mode of the printer. (Excluding TSP100IIIBI, POP10, MCP31LB, MCP20B and MCP21LB)

3) Click Bluetooth icon , and select "Set up new device". When click "Forward", the system find the printer.

4) Select the printer which is displayed in the Serch panel, and click "Continue". The system start the pairing.

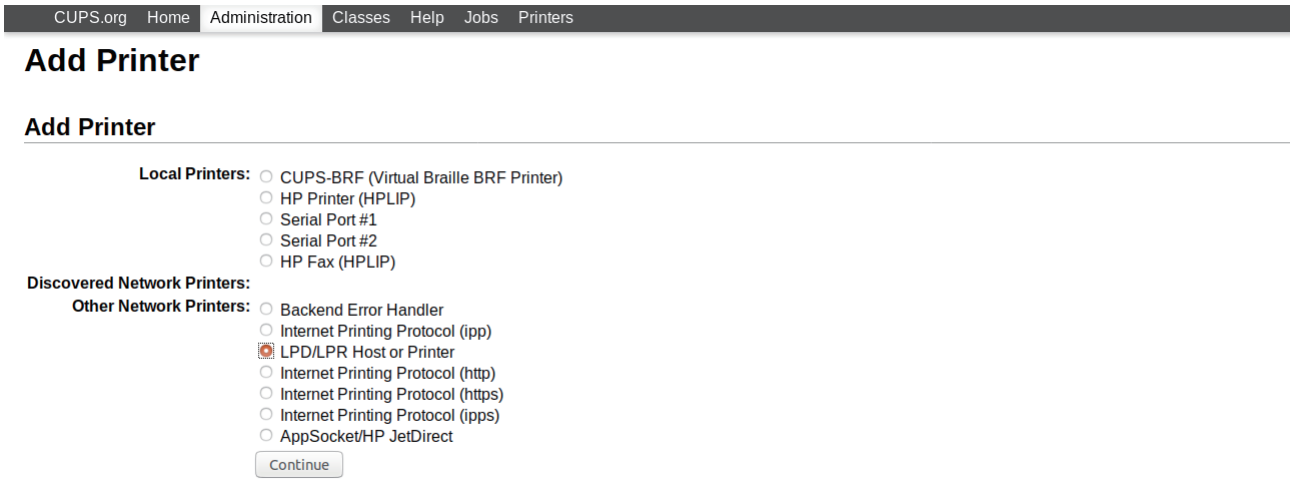
If the pairing is unsuccessful, please try again.

2. Open your favorite web browser and navigate to "http://localhost:631/admin".



3. Click "Add Printer".
Note: When a dialog box is displayed requesting certification, enter the root password and press [Yes].

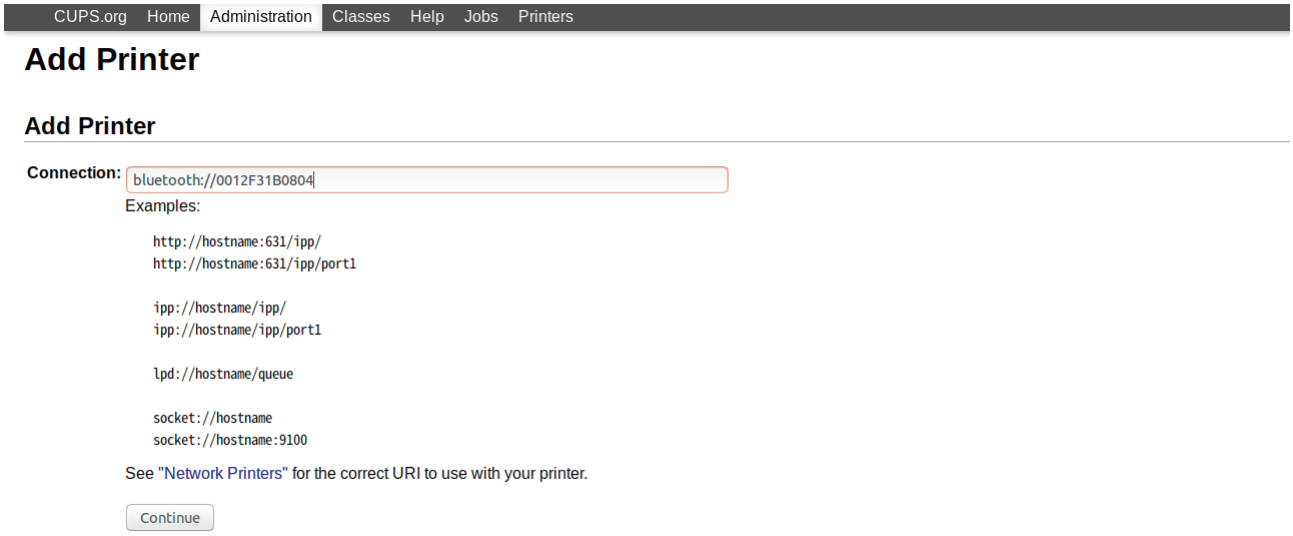
4. Select the 'LPD/LPH Host or Printer'. Then click “Continue”.



5. Specify the device URI for the printer as shown below and click "Continue".

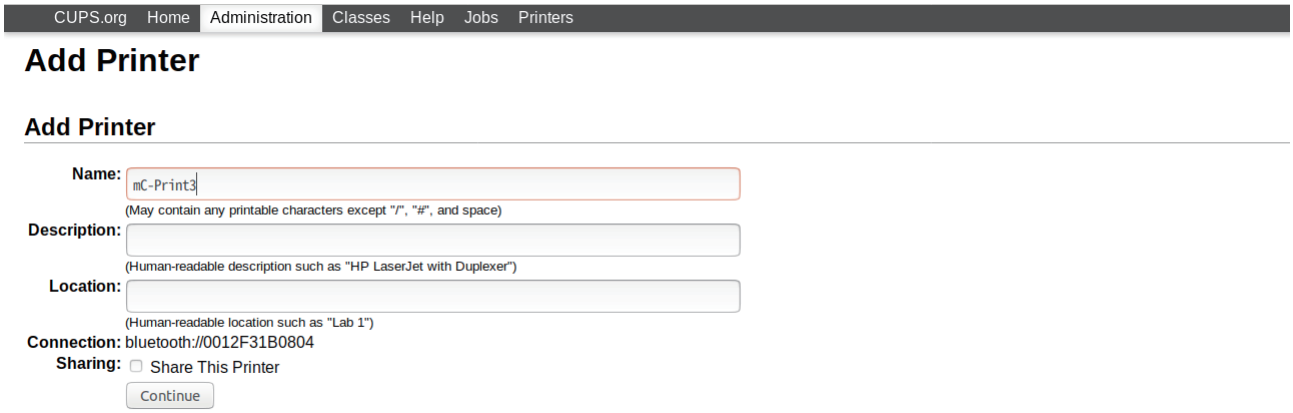
   bluetooth://<<Bluetooth Address>>

   ex. **bluetooth://0012f31B0804**

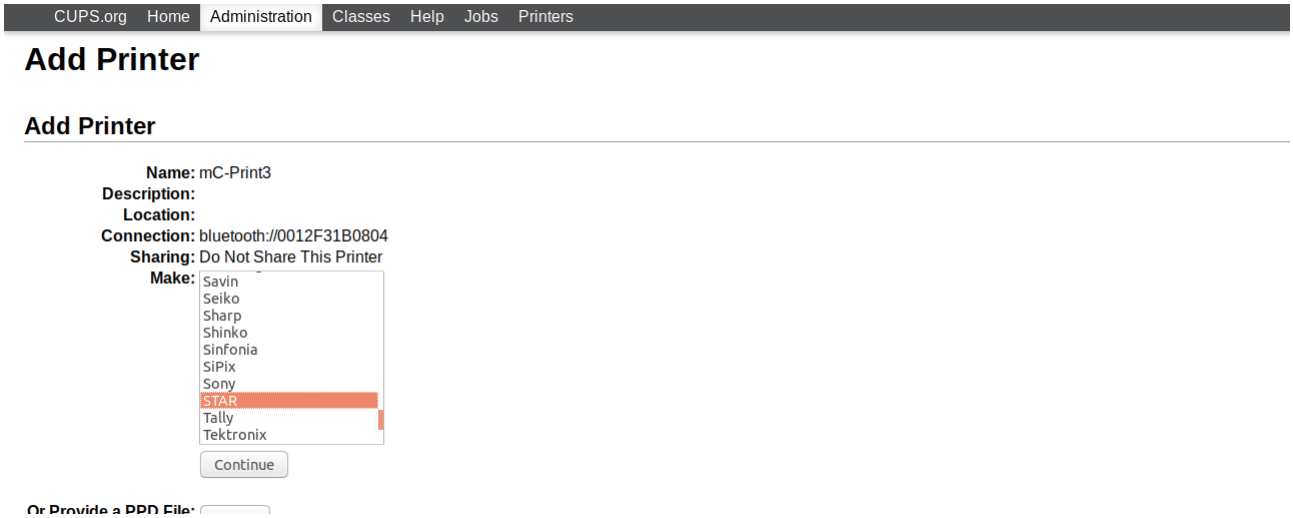


Point! The Bluetooth address is included in the Bluetooth information printed by self-print (by powering on while pressing the Feed button).

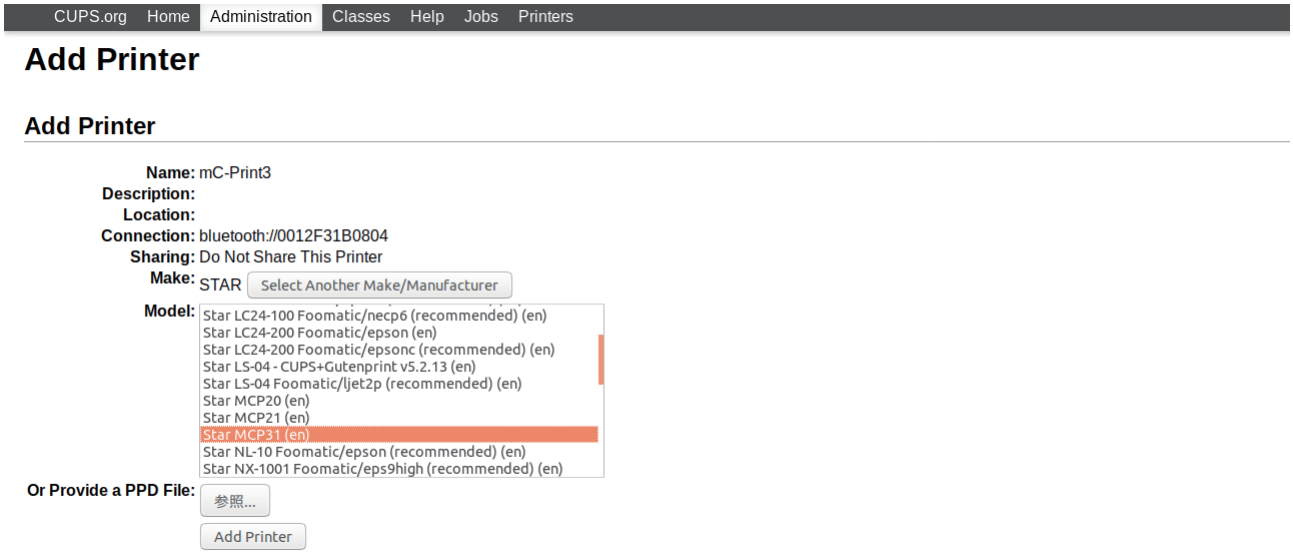
6. In the Add Printer screen, enter "Name:", "Description:" and "Location". Then click "Continue". Location, and Description can be left blank.



7. Select "STAR" as the Make. Then click "Continue".



7. Select the printer model. Then click "Add Printer".



Note : In some versions of CUPS, Star model name is not displayed in the model/driver pull-down menu. In such cases, after performing the following, return to the previous page and reregister the printer.

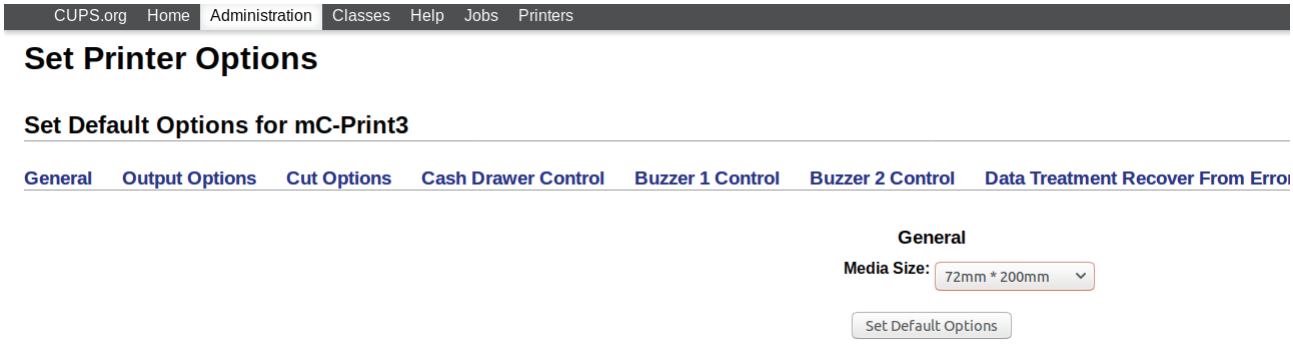
$ su
# cp -fr /usr/share/cups/model/star /usr/share/ppd/star

Point! The correspondence table for printer models and drivers is shown below.

Series	Model	Driver
TSP100 Series	TSP143IIIBI	Star TSP100 Cutter
TSP650II Series	TSP654II	Star TSP650 Cutter
TSP700II Series	TSP743II	Star TSP700II
TSP800II Series	TSP847II	Star TSP800II
mPOP Series	POP10	Star POP10
mC-Print3 Series	MCP31LB	Star MCP31
mC-Print2 Series	MCP20B	Star MCP20
	MCP21LB	Star MCP21

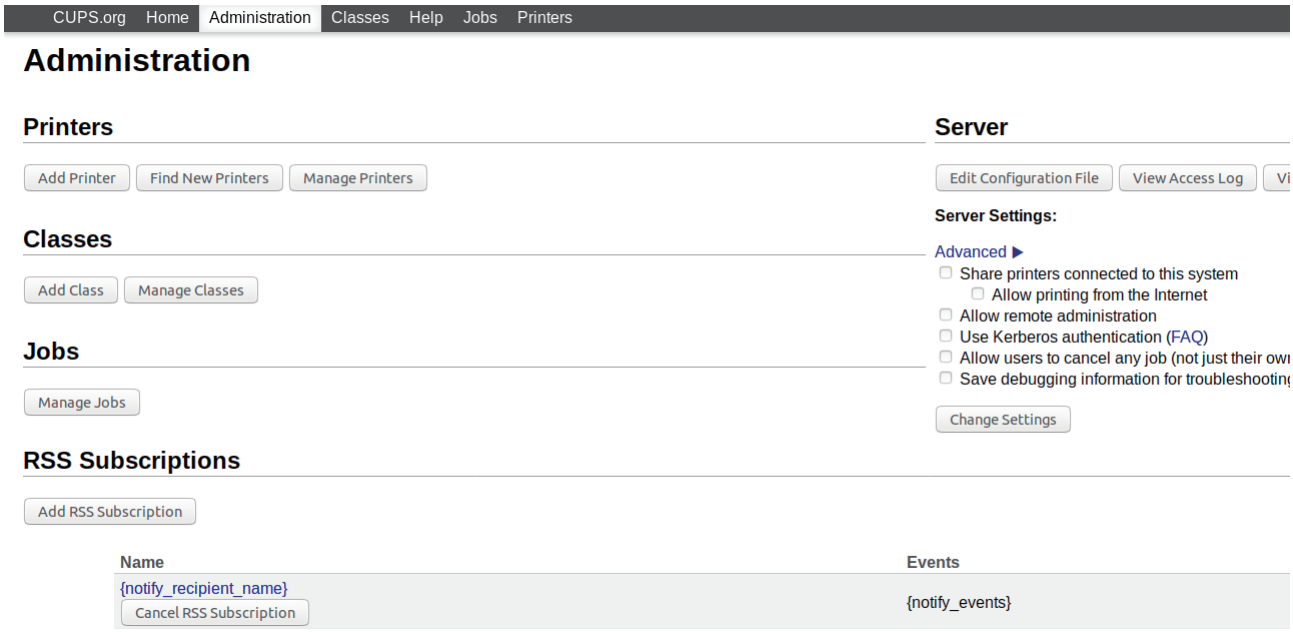
8. Select "Policies" and set "Error Policy:" to [retry-current-job].

This completes printer installation and registration.



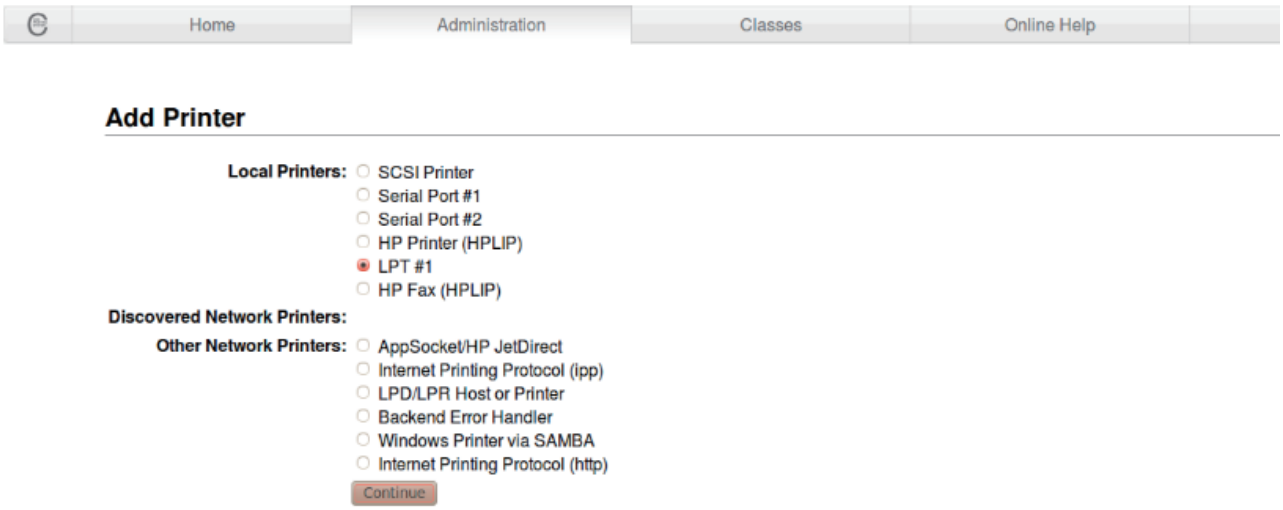
1.2.4 When Using a Parallel Interface

1. Open your favorite web browser and navigate to "http://localhost:631/admin".

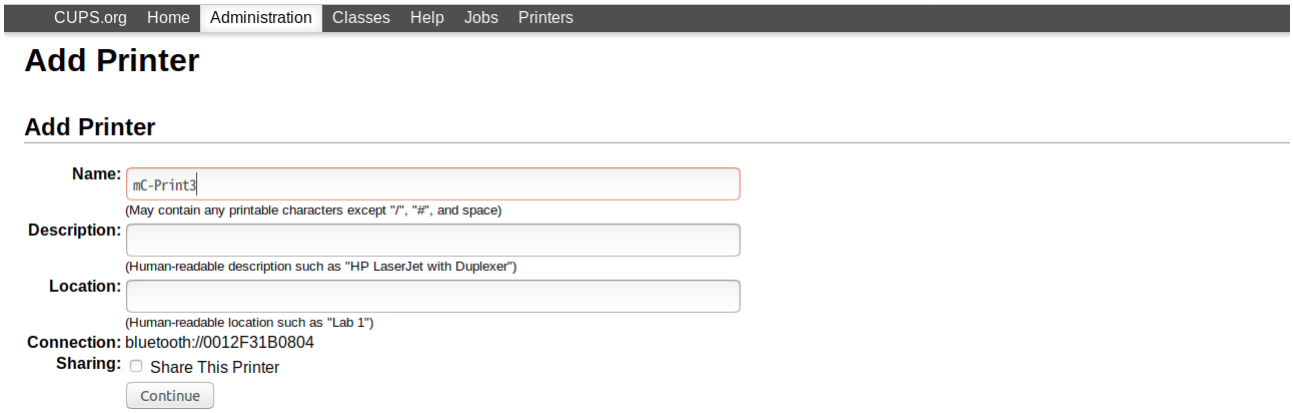


2. Click "Add Printer".
   Note: When a dialog box is displayed requesting certification, enter the root password and press [Yes].

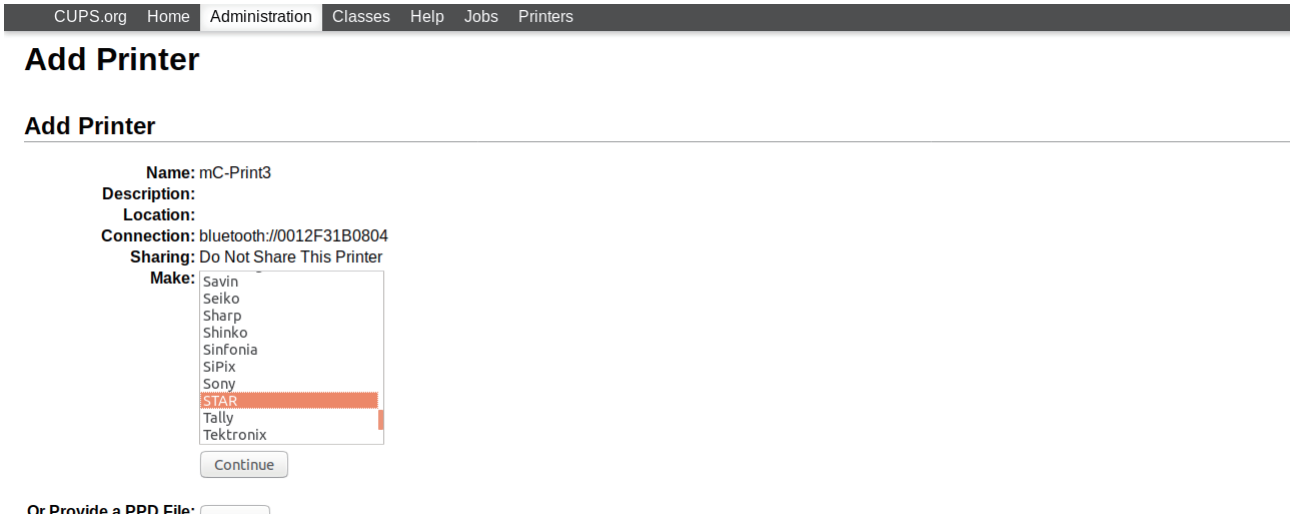
3. In the Add Printer screen, select "LPT #1". Then click "Continue".



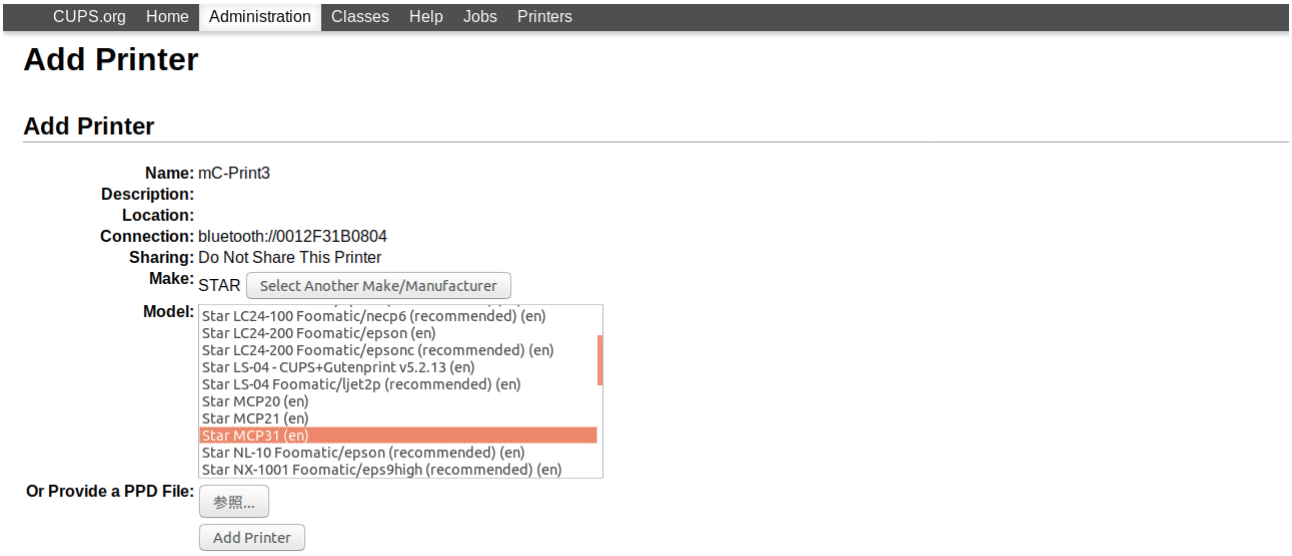
4. In the Add Printer screen, enter "Name:", "Description:" and "Location". Then click “Continue”. Location, and Description can be left blank.



5. Select "STAR" as the Make. Then click “Continue”.



6. Select the printer model. Then click "Add Printer".



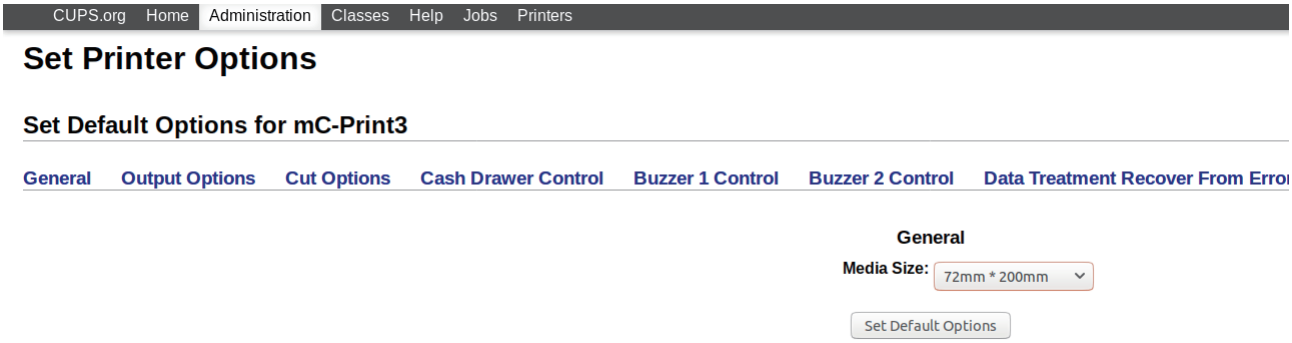
Point! The correspondence table for printer models and drivers is shown below.

Series	Model	Driver
TSP650II Series	TSP654II	Star TSP650 Cutter
TSP700II Series	TSP743II	Star TSP700II
TSP800II Series	TSP847II	Star TSP800II

Note : In some versions of CUPS, Star model name is not displayed in the model/driver pull-down menu. In such cases, after performing the following, return to the previous page and reregister the printer.

$ su
# cp -fr /usr/share/cups/model/star /usr/share/ppd/star

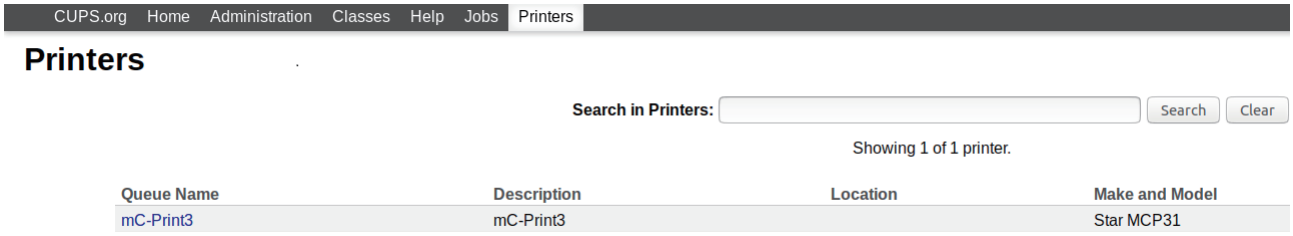
This completes printer installation and registration.



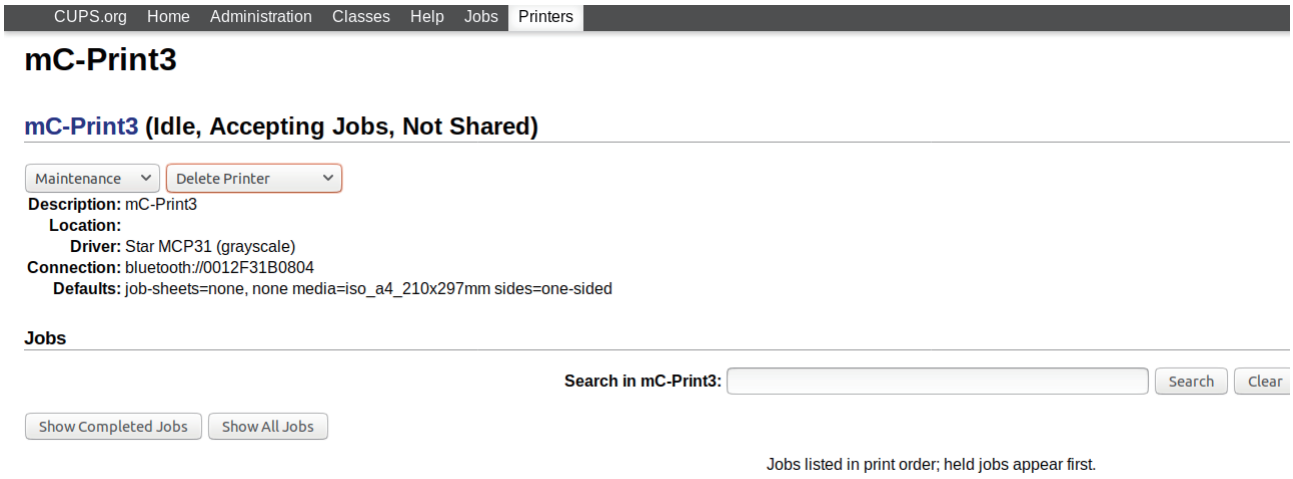
1.3. Uninstallation Procedures

To uninstall the driver, proceed as follows.

1. Open your favorite web browser and navigate to “http://localhost:631/printers”.
2. Select the registered printer queue.

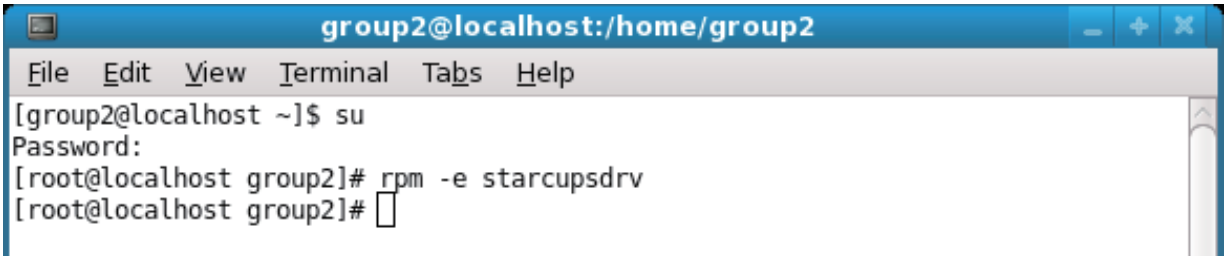


3. Select the "Delete Printer".



4. Click on the “Delete Printer”.

5. Startup the terminal.
6. Use the "su" command to enable root account privileges.
   $ su
7. Run the rpm command using the "e" switches.
   rpm -e starcupsdrv



✱ ubuntu uninstalling procedures

$ cd "Source code highest level directory path"
$ su -
# make remove

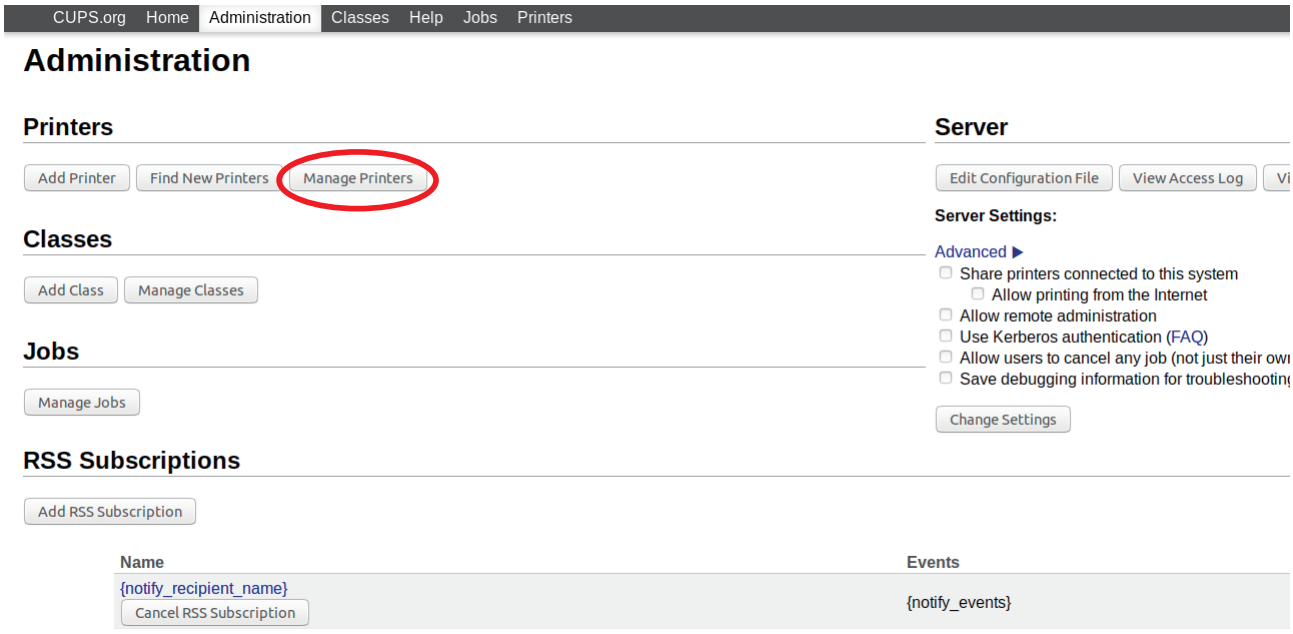
Note : If the folder /usr/share/ppd/star is copied while registering a printer, use the command below to delete the folder.

rm -fr /usr/share/ppd/star

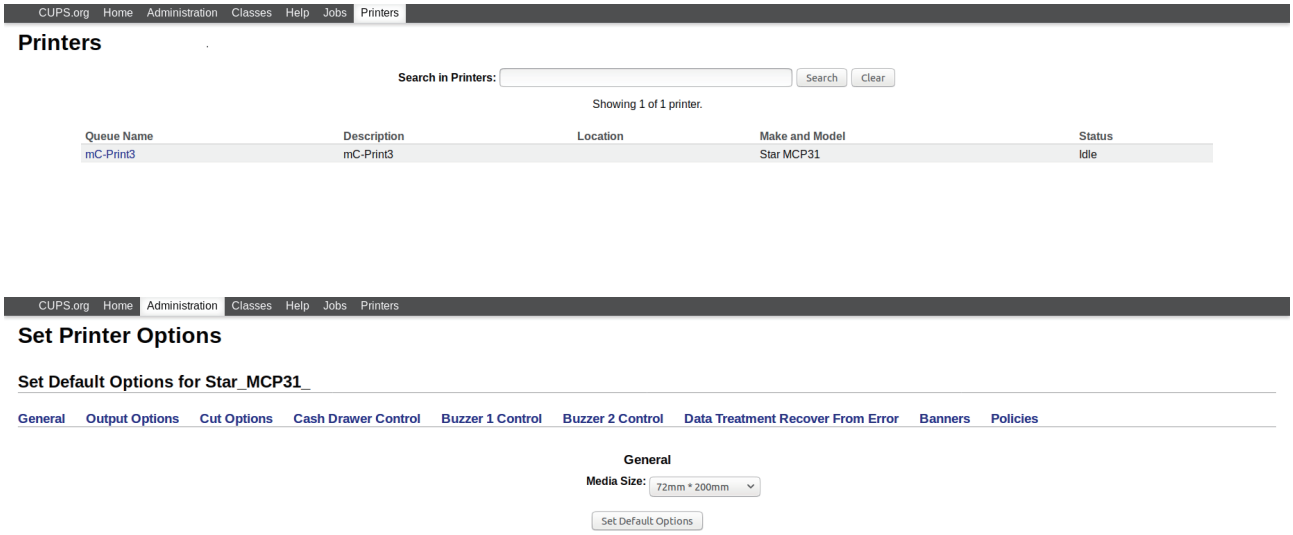
2. Setting the Printer Functions

Setting the printer functions is done on the Web browser CUPS management screen.

1. Access the CUPS management screen (http://localhost:631/admin) using the web browser. Click "Manage Printers".



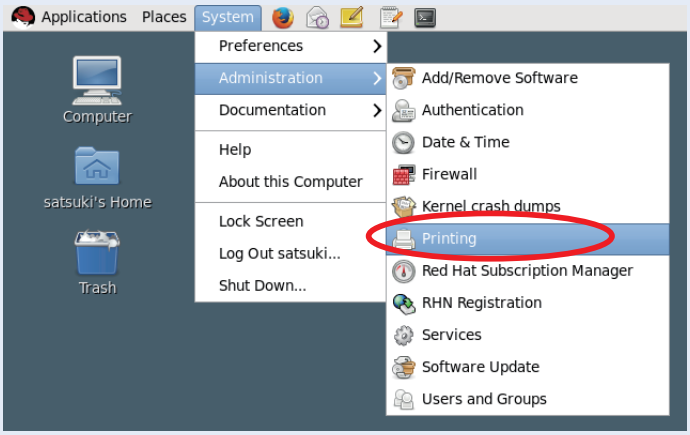
2. An earlier printer driver is registered, so to change the setting.



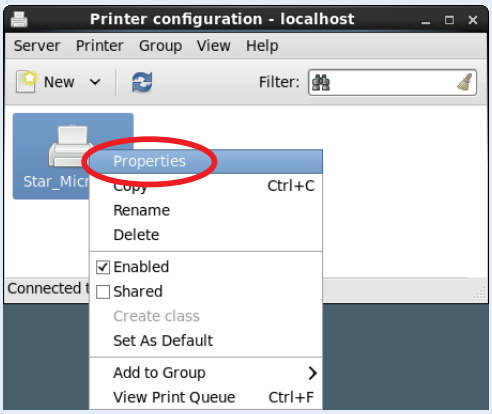
◆ **When the printer function is not displayed on the CUPS management screen**

With some OSs such like Red Hat 6.6 and CentOS 6.6, the printer function is not displayed on the CUPS management screen. Please set the printer function in the following steps.

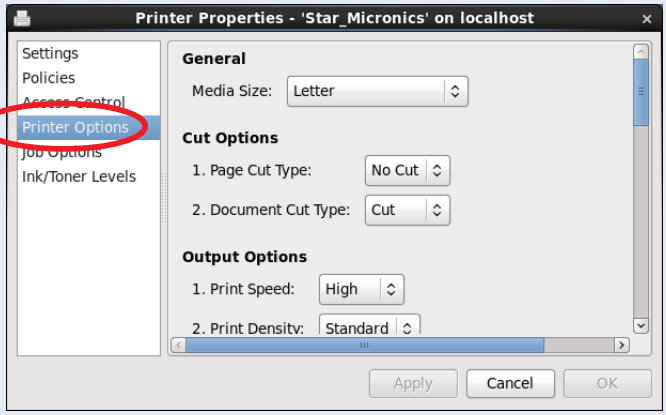
(1) Open "System - Administration - Printing".



(2) Right-click on the target printer icon and click "Properties" in the pull-down menu .



(3) Select [Printer Options] in the menu to display the setting items and set the printer functions.



2.1 Function List

Depending on the printer that you select, the functions that are displayed may differ, and only the ones displayed can be set.

■ General

1. Media Size: (paper size)

The following paper sizes are available and can be set.

Point! When a paper size is selected that exceeds the maximum printing width, the print is shrunk to fit the maximum printing width.

Paper Size	Supported Models				
	TSP 143*	TSP 113**	TSP 654II	TSP 700II	TSP 800II
50.8 * 30mm	○	○	○	○	
50.8 * 40mm	○	○	○	○	
⋮	⋮	⋮	⋮	⋮	
50.8 * 190mm	○	○	○	○	
50.8 * 200mm	○	○	○	○	
50.8 * 1500mm			○	○	
50.8 * 2000mm	○	○	○	○	
52 * 30mm				○	
52 * 40mm				○	
⋮				⋮	
52 * 190mm				○	
52 * 200mm				○	
52 * 1500mm				○	
52 * 2000mm				○	
52.5 * 30mm				○	
52.5 * 40mm				○	
⋮				⋮	
52.5 * 190mm				○	
52.5 * 200mm				○	
52.5 * 1500mm				○	
52.5 * 2000mm				○	
72 * 30mm	○	○	○	○	
72 * 40mm	○	○	○	○	
⋮	⋮	⋮	⋮	⋮	
72 * 190mm	○	○	○	○	
72 * 200mm	○	○	○	○	
72 * 1500mm			○	○	
72 * 2000mm	○	○	○	○	
80 * 30mm				○	
80 * 40mm				○	
⋮				⋮	
80 * 190mm				○	
80 * 200mm				○	
80 * 1500mm				○	
80 * 2000mm				○	

Paper Size	Supported Models				
	TSP 143*	TSP 113**	TSP 654II	TSP 700II	TSP 800II
104 * 30mm					○
104 * 40mm					○
⋮					⋮
104 * 190mm					○
104 * 200mm					○
104 * 1500mm					○
104 * 2000mm					○
A4	○	○	○	○	○
Letter	○	○	○	○	○
Legal	○	○	○	○	○

Paper Size	Supported Models		
	mPOP	mC-Print2	mC-Print3
48 * 100mm	○	○	○
48 * 200mm	○	○	○
48 * 1500mm	○	○	○
50.8 * 100mm	○	○	○
50.8 * 200mm	○	○	○
50.8 * 1500mm	○	○	○
54 * 100mm	○		○
54 * 200mm	○		○
54 * 1500mm	○		○
72 * 100mm		○	
72 * 200mm		○	
72 * 1500mm		○	
A4	○	○	○
Letter	○	○	○
Legal	○	○	○

In some cases, these settings will not work as expected depending on the application being used to print from.

* TSP143(Cutter Model) :TSP100IIIW/LAN/BI/U, TSP100IIU, TSP143U, TSP143GT, TSP143LAN

** TSP113(Tear Bar Model) :TSP113U, TSP113GT, TSP113LAN

■Output Options

• Print Speed:

Sets the print speed. Note that the setting also affects the print quality.

Setting	Default	Details
High	✓	Print quality has priority over speed.
Middle *		Print quality and speed are in the middle.
Low		Best quality, but slow print speed.

* Not supported by the mPOP series.

Point! This function is supported by TSP100, TSP650II,TSP700II,TSP800II, mPOP and mC-Print3 series.

• Print Density:

This sets the printing Density.

Setting Value	Default	Details
-3 to -1 *		Larger value with - (minus) makes print density lighter.
Standard	✓	Prints with normal density.
+1 to +3		Larger value with + (plus) makes print density darker.

* Not supported by the mPOP and mC-Print2 series.

Point! This function is supported by 650II, mPOP, mC-Print3 and mC-Print2 series.

• Page Type:

This sets the page type.

Setting	Default	Details
Variable Length	✓	Does not output blank data until the bottom of the page. Receipt ends after final data is printed.
Fixed Length		Outputs blank data as a blank until the bottom of the page. Receipt ends after printing the length specified by paper size.

• Top Search:

Selects whether the printer executes a reverse-feed before print.

Setting	Default	Details
Disable	✓	No reverse-feed before print.
Enable		Executes reverse-feed before print.

Point! This function is supported by TSP700II series and TSP800II series.

Note : This function is available only when the **Cut Options** setting is configured to 'Full Cut'. The function is not available when 'PartialCut' is selected.

• **Top Margin:**

Selects whether the printer executes a reverse-feed before print.

Setting	Default	Details
Disable	✓	No reverse-feed before print. The default margins (11 mm) are applied.
2mm to 10mm		Executes reverse-feed before print.

Point! This function is supported by mC-Print3 series.

Limitation for Top Margin Setting :

When the top margin is set to 10 mm or less, the paper length (cut length) should not exceed 50mm.
(If the cut paper remains at the paper-exit, a paper jam may occur. There is no limitation when the cut paper is removed.)

■Cut Options (Cutter Model)

• **Page Cut Type:**

This sets the cutting method for the end of all pages, excluding the last page.

Setting	Default	Details
No Cut	✓	Does not perform a cut and page feed.
Partial Cut		Feeds paper to cutting position, then cuts the paper, leaving one uncut point in center of paper.
Full Cut *1		Paper is fed to cutting position, then a full cut is applied.

*1 Not supported by model.

• **Document Cut Type:**

This sets the cutting method for the last page.

Setting	Default	Details
No Cut		Does not perform a cut and page feed.
Partial Cut	✓	Feeds paper to cutting position, then cuts the paper, leaving one uncut point in center of paper.
Full Cut *		Paper is fed to cutting position, then a full cut is applied.
Tear Bar		Paper is fed to the tear bar (cutting position).

*1 Not supported by model.

■Feed Options (Tear Bar Model)

• **Page Feed Type:**

This sets the page feed operation for the end of all pages, excluding the last page.

Setting	Default	Details
No Feed	✓	The paper feed operation is not performed.
Tear Bar		Paper is fed to the tear bar (cutting position).

• **Document Feed Type:**

This sets the page feed operation for the last page.

Setting	Default	Details
No Feed		The paper feed operation is not performed.
Tear Bar	✓	Paper is fed to the tear bar (cutting position).

■ Data Treatment Recover From Error

• Data Treatment Recover From Error:

When the error occurs, you can handle the unprinted data which has already been sent to the printer as below.

Setting	Default	Details
No Use		The paper feed operation is not performed.
Clear Data By Document Unit	✓	After the recovery, the unprinted data of the remainder is canceled after the recovery from the error.

Point! This function is supported by TSP650II, TSP700II, TSP800II, mPOP, mC-Print3 and mC-Print2 series.

Note (TSP700II and TSP800II)

This feature does not operate correctly with old firmware.
If you are using TSP700II firmware version less than 3.0 and TSP800II firmware less than 1.2, select "No Use". You can check the firmware version by executing Self-Printing. To update the printer's firmware, contact your STAR dealer.

■ Cash Drawer Control

• Cash Drawer:

This sets the operations of the cash drawer.

Setting Value	Default Value	Details
Do Not Open Drawers	✓	No cash drawer drive.
Open Drawer 1		Drives cash drawer 1 immediately after printing.
Open Drawer 2		Drives cash drawer 2 immediately after printing.
Open Drawer 1 and 2		Drives cash drawers 1 and 2 immediately after printing.

• Cash Drawer 1 Pulse Width:

This sets the cash drawer 1 pulse width.

Setting Value	Default Value	Details
10 milliseconds		Sets the pulse width to 0.01 seconds.
100 milliseconds		Sets the pulse width to 0.1 seconds.
200 milliseconds	✓	Sets the pulse width to 0.2 seconds.
300 milliseconds		Sets the pulse width to 0.3 seconds.
400 milliseconds		Sets the pulse width to 0.4 seconds.
500 milliseconds		Sets the pulse width to 0.5 seconds.
600 milliseconds		Sets the pulse width to 0.6 seconds.
700 milliseconds		Sets the pulse width to 0.7 seconds.
800 milliseconds		Sets the pulse width to 0.8 seconds.
900 milliseconds		Sets the pulse width to 0.9 seconds.
1000 milliseconds		Sets the pulse width to 1.0 seconds.
1100 milliseconds		Sets the pulse width to 1.1 seconds.
1200 milliseconds		Sets the pulse width to 1.2 seconds.

Note : The pulse width for cash drawer 2 is fixed at 200 milliseconds.

■ Buzzer 1 Control and Buzzer 2 Control

• Buzzer 1 (or Buzzer 2):

This sets the drive of either buzzer 1 or buzzer 2.

Setting Value	Default Value	Details
No Use	✓	Buzzer 1 or buzzer 2 is not used.
Document Top		Executes buzzer 1 (or 2) at the top of the document.
Document Bottom		Executes buzzer 1 (or 2) at the bottom of the document.

Cautions : **When a device other than a buzzer or mC-Sound, such as a cash drawer, is connected, select 'No Use'. If the wrong setting is selected, the device may be damaged.**

• Buzzer 1 (Buzzer 2) - On Time:

This sets the time to ring buzzer 1 or buzzer 2.

Setting Value	Default Value	Details
20 milliseconds	✓	Sets to 0.02 seconds.
40 milliseconds		Sets to 0.04 seconds.
100 milliseconds		Sets to 0.1 seconds.
200 milliseconds		Sets to 0.2 seconds.
500 milliseconds		Sets to 0.5 seconds.
1000 milliseconds		Sets to 1.0 seconds.
2000 milliseconds		Sets to 2.0 seconds.
5000 milliseconds		Sets to 5.0 seconds.

• Buzzer 1 (Buzzer 2) - Off Time:

This sets buzzer 1 or buzzer 2 off time.

Setting Value	Default Value	Details
20 milliseconds	✓	Sets to 0.02 seconds.
40 milliseconds		Sets to 0.04 seconds.
100 milliseconds		Sets to 0.1 seconds.
200 milliseconds		Sets to 0.2 seconds.
500 milliseconds		Sets to 0.5 seconds.
1000 milliseconds		Sets to 1.0 seconds.
2000 milliseconds		Sets to 2.0 seconds.
5000 milliseconds		Sets to 5.0 seconds.

• **Buzzer 1 (Buzzer 2) - Repeat:**

This sets the number of times to ring buzzer 1 (or buzzer 2) driven by the timing set at 1:Buzzer 1 (or Buzzer 2).

The buzzer will stop regardless of the number of times set to ring by pressing the "FEED".

Setting Value	Default Value	Details
1	✓	Rings buzzer 1 (or buzzer 2) Once.
2		Rings buzzer 1 (or buzzer 2) twice.
3		Rings buzzer 1 (or buzzer 2) three times.
5		Rings buzzer 1 (or buzzer 2) five times.
10		Rings buzzer 1 (or buzzer 2) ten times.
15		Rings buzzer 1 (or buzzer 2) fifteen times.
20		Rings buzzer 1 (or buzzer 2) twenty times.

Note : The buzzer ringing time and off time should not exceed 90 seconds in total.

■ mC-Sound Control

• **mC-Sound:**

This sets mC-Sound operation.

Setting Value	Default Value	Details
No Use	✓	Does not activate mC-Sound.
Document Top		Executes mC-Sound at the top of the document.
Document Bottom		Executes mC-Sound at the bottom of the document.

Cautions :

1) ***When a device other than a buzzer or mC-Sound, such as a cash drawer, is connected, select 'No Use'. If the wrong setting is selected, the device may be damaged.***
2) ***If you play sound from the printer drivers, the values which are set in 'Sound Area', 'Sound Number', and 'Volume' of mC-Sound Control will take priority. This will apply even when the sound source and volume are set using the mC-Sound DIP switches.***

• **mC-Sound - Sound Storage Area:**

Selects the sound storage area for mC-Sound. The sound source can be set with the combination of sound storage area and sound number. The sound sources which can be set are as shown in the list of setting sound sources.

Setting Value	Default Value	Details
1	✓	Sets to sound storage area 1.
2		Sets to sound storage area 2.

• **mC-Sound - Sound Number:**

Selects the sound storage area for mC-Sound. The sound source can be set with the combination of sound storage area and sound number. The sound sources which can be set are as shown in the list of setting sound sources.

Setting Value	Default Value	Details
0	✓	Sets to sound number 0.
1		Sets to sound number 1.
2		Sets to sound number 2.
3		Sets to sound number 3.
4		Sets to sound number 4.
5		Sets to sound number 5.
6		Sets to sound number 6.
7		Sets to sound number 7.

■ Setting Sound Sources

Sound Storage Area	Sound Number	Sound Source
1	0	Sound1
1	1	Sound2
1	2	Sound3
1	3	Sound4
1	4	Sound5
1	5	Sound6
1	6	Sound7
1	7	Sound8

Sound Storage Area	Sound Number	Sound Source
2	0	Sound9
2	1	Sound10
2	2	Sound11
2	3	Sound12
2	4	Sound13
2	5	Sound14
2	6	Sound15
2	7	Sound16

• **mC-Sound - Sound Volume:**

Selects the mC-Sound sound volume.

Setting	Default	Details
0 (Mute)		mC-Sound is muted.
1		Sets the mC-Sound sound volume to 1.
2 (Low)		Sets the mC-Sound sound volume to 2.
3		Sets the mC-Sound sound volume to 3.
4		Sets the mC-Sound sound volume to 4.
5		Sets the mC-Sound sound volume to 5.
6 (Medium)	✓	Sets the mC-Sound sound volume to 6.
7		Sets the mC-Sound sound volume to 7.
8		Sets the mC-Sound sound volume to 8.
9		Sets the mC-Sound sound volume to 9.
10		Sets the mC-Sound sound volume to 10.
11		Sets the mC-Sound sound volume to 11.
12 (High)		Sets the mC-Sound sound volume to 12.
13		Sets the mC-Sound sound volume to 13.
14		Sets the mC-Sound sound volume to 14.
15		Sets the mC-Sound sound volume to 15.

• **mC-Sound - Repeat:**

Sets the number of times to repeat mC-Sound playback.

Setting	Default	Details
1	✓	Sets mC-Sound to play 1 time.
2		Sets mC-Sound to play 2 time.
3		Sets mC-Sound to play 3 time.
4		Sets mC-Sound to play 4 time.
5		Sets mC-Sound to play 5 time.
6		Sets mC-Sound to play 6 time.
7		Sets mC-Sound to play 7 time.
8		Sets mC-Sound to play 8 time.
9		Sets mC-Sound to play 9 time.
10		Sets mC-Sound to play 10 time.

3. Guidelines for Using an Ethernet Environment

The printer's IP address must be set in advance to use a printer that supports LAN using this driver. If your LAN environment does not allow acquisition of an IP address from a DHCP server, set the IP address to the printer in advance.

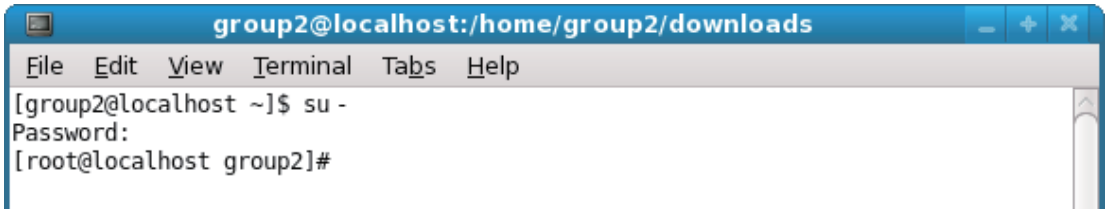
3.1 Setting a Temporary IP Address

Use the following procedures to set a temporary IP address to the printer. By setting a temporary IP address, it is possible to connect to a printer that has not been set with an IP address.

> ***Caution :*** Printer settings should be done by a user with administrator rights.

Point! A MAC address of the printer to be set is necessary for the temporary IP address. Confirm the MAC address in a self-print from the printer. See the Hardware Manual for details on running a self-print.

1. Startup the terminal.
2. Use the "su" command to enable root account privileges.



3. Execute the following command in the terminal to set a temporary IP address to the printer.

    1. arp -d [Printer temporary IP address]
    2. arp -s [Printer temporary IP address] [Printer MAC address]
    3. ping -c 4 [Printer temporary IP address]
    4. arp -d [Printer temporary IP address]

Example of temporary IP address (192.168.32.228)

```
arp -d 192.168.32.228
arp -s 192.168.32.228 00:11:62:04:83:98
ping -c 4 192.168.32.228
arp -d 192.168.32.228
```

Note: When you use Ubuntu, do not input "su -" command and input "sudo arp" command instead of "arp" command.
The temporary IP address set here is erased when the printer power is turned off.
Continue by setting the IP address.

Uset "exit" command to exit super user status.

3.2 Setting the IP Address (TELNET Utility)

The Telnet command connects directly to the printer to make settings.

1. Startup the terminal.
2. Use the Telnet command to connect to the printer to set.

   Ex. >telnet 192.168.32.228 (The IP address of the printer to be set.)

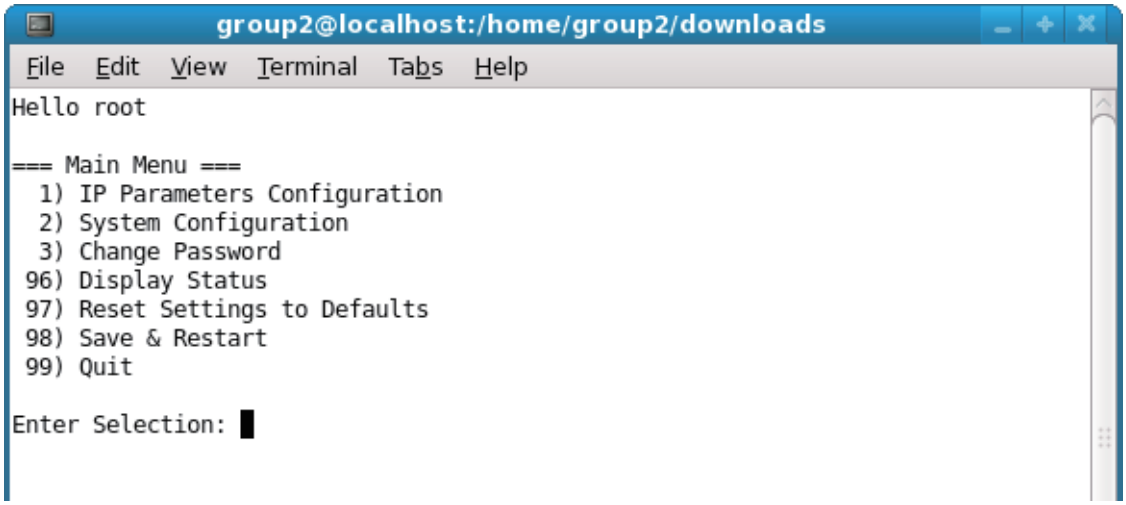
> ***Note:*** **You cannot connect to a printer that does not have an IP address. See section 3.1 Setting a Temporary IP Address for details on setting such an address on the printer in advance.**

3. Log-in to the printer to be set as a "root" user.
   The default password is "public."
   To change the password, input the changed password.

4. The following menu is displayed.

   1) IP Parameters Configuration
   2) System Configuration
   3) Change Password
   96) Display Status
   97) Reset Settings to Defaults
   98) Save and Restart
   99) Quit
   Enter Selection

Input the number that corresponds to your selection.



5. When all settings are completed, save the changes using "98(Save and Restart)" - "1(Save & Restart device & Configuration printing)", or "2 (Save & Restart device)". The settings of the printer will be saved. Reset the printer.

4. Guidelines for Using the lpr Command

When printing useing the lpr command from the command line, you can specify options with the following format.

$lpr -o [option]=[value] -o [option]=[value] ... [Filename]

In [option] and [value], specify the name shown in the command "specify name" in section 4.1 List of Supported Functions".
Also for options not specified, print using the default driver settings.

Point! Use the printer name confirmed using the "lpstat -p" command, when specifying the printer name using the option "-P".

Use Example 1

Printer Name :	TSP100
File Name :	sample1.txt
Paper Size * :	50.8 * 200mm
Margin(top) * :	0mm
Margin(bottom) * :	0mm
Margin(left)* :	0mm
Margin(right)* :	0mm

* This option is not a printer driver option, but an OS standard option.

```
$ lpr -P TSP100 -o media="X50D8MMY200MM"
-o page-top=0 -o page-bottom=0 -o page-left=0
-o page-right=0 sample1.txt
```

Use Example 2

File Name :	sample2.txt
Print Speed :	Low

```
$ lpr -o PrintSpeed=2Low sample2.txt
```

Use Example 3

File Name :	sample3.txt
Document Cut Type :	No Cut

```
$ lpr -o DocCutType=0NoCutDoc sample3.txt
```

4.1 Function List

See section 2.1 Function List for the details on the functions.

	Option Name		Command		Supported Model							
	option	value	[option]	[value]	TSP 143 *	TSP 113 **	TSP 654II	TSP 743II	TSP 847II	POP 10	MCP 31L/ 31LB	MCP 20/20B /21LB
Output Option	Print Speed	High	**PrintSpeed**	**0High**	●	●	●	●	●	●	●	
		Middle		**1Middle**	○	○	○	○	○		○	
		Low		**2Low**	○	○	○	○	○	○	○	
	Print Density	-3	**PrintDensity**	**0Minus3**			○				○	
		-2		**1Minus2**			○				○	
		-1		**2Minus1**			○				○	
		Standard		**3ZERO**			●			●	●	●
		+1		**4Plus1**			○			○	○	○
		+2		**5Plus2**			○			○	○	○
		+3		**6Plus3**			○			○	○	○
	Page Type	Variable Length	**PageType**	**0Variable**	●	●	●	●	●	●	●	●
		Fixed Length		**1Fixed**	○	○	○	○	○	○	○	○
	Top Search	Disable	**TopSearch**	**0Disable**				●	●			
		Enable		**1Enable**				○	○			
	Top Margin	Disable	**TopMargin**	**0Dsable**							●	
		2mm		**1Millimeter2**							○	
		3mm		**2Millimeter3**							○	
		4mm		**3Millimeter4**							○	
		5mm		**4Millimeter5**							○	
		6mm		**5Millimeter6**							○	
		7mm		**6Millimeter7**							○	
		8mm		**7Millimeter8**							○	
		9mm		**8Millimeter9**							○	
		10mm		**9Millimeter10**							○	
Cut Options (Cutter)	Page Cut Type	No Cut	**PageCutType**	**0NoCutPage**	●		●	●	●	●	●	●
		Partial Cut		**1PartialCutPage**	○		○	○	○	○	○	○
		Full Cut		**2FullCutPage**				○	○	○		○
	Document Cut Type	No Cut	**DocCutType**	**0NoCutDoc**	○		○	○	○	○	○	○
		Partial Cut		**1PartialCutDoc**	●		●	●	●	●	●	●
		Full Cut		**2FullCutDoc**				○	○	○		○
		Tear Bar		**3TearBarDoc**					○			
Feed Options (TearBar)	Page Feed Type	No Feed	**PageCutType**	**0NoCutPage**		●						
		Tear Bar		**1TearBarPage**		○						
	Document Feed Type	No Feed	**DocCutType**	**0NoCutDoc**		○						
		Tear Bar		**1TearBarDoc**		●						
Data Treatment Recover From Error	Data Treatment Recover From Error	No Use	**DataTreatment RecoverFrom Error**	**0NoUse**			○	○	○	○	○	○
		Clear Data By Document Unit		**1ClearDataBy Document Unit**			●	●	●	●	●	●

* TSP143(Cutter Model) :TSP100IIIW/LAN/BI/U, TSP100IIU, TSP143U, TSP143GT, TSP143LAN

** TSP113(Tear Bar Model) :TSP113U, TSP113GT, TSP113LAN

	Option Name		Command Name		Supported Model							
	option	value	[option]	[value]	TSP 143 *	TSP 113 **	TSP 654II	TSP 743II	TSP 847II	POP 10	MCP 31L/ 31LB	MCP20 /20B /21LB
Cash Drawer Control	Cash Drawer	Do Not Open Drawers	**CashDrawer Setting**	**0DoNotOpenDrawers**	●	●	●	●	●	●	●	●
		Open Drawer 1		**1OpenDrawer1**	○	○	○	○	○	○	○	○
		Open Drawer 2		**2OpenDrawer2**	○	○	○	○	○	○	○	○
		Open Drawer 1 and 2		**3OpenDrawer3**	○	○	○	○	○	○	○	○
	Cash Drawer 1 Pulsh Width	10 milliseconds	**CashDrawer1 PulseWidth**	**0Millis10**	○	○	○	○	○	○	○	○
		100 milliseconds		**1Millis100**	○	○	○	○	○	○	○	○
		200 milliseconds		**2Millis200**	●	●	●	●	●	●	●	●
		300 milliseconds		**3Millis300**	○	○	○	○	○	○	○	○
		400 milliseconds		**4Millis400**	○	○	○	○	○	○	○	○
		500 milliseconds		**5Millis500**	○	○	○	○	○	○	○	○
		600 milliseconds		**6Millis600**	○	○	○	○	○	○	○	○
		700 milliseconds		**7Millis700**	○	○	○	○	○	○	○	○
		800 milliseconds		**8Millis800**	○	○	○	○	○	○	○	○
		900 milliseconds		**9Millis900**	○	○	○	○	○	○	○	○
		1000 milliseconds		**10Millis1000**	○	○	○	○	○	○	○	○
		1100 milliseconds		**11Millis1100**	○	○	○	○	○	○	○	○
		1200 milliseconds		**12Millis1200**	○	○	○	○	○	○	○	○
Buzzer 1 Control/ Buzzer 2 Control	Buzzer 1 / Buzzer2	No Use	**Buzzer1Setting / Buzzer2Setting**	**0NoUse**			●	●			●	●
		Document Top		**1DocumentTop**			○	○			○	○
		Document Bottom		**2DocumentBtm**			○	○			○	○
	Buzzer1- On Time / Buzzer2 - On Time	20 milliseconds	**Buzzer1OnTime / Buzzer2OnTime**	**0Millis20**			●	●			●	●
		40 milliseconds		**1Millis40**			○	○			○	○
		100 milliseconds		**2Millis100**			○	○			○	○
		200 milliseconds		**3Millis200**			○	○			○	○
		500 milliseconds		**4Millis500**			○	○			○	○
		1000 milliseconds		**5Millis1000**			○	○			○	○
		2000 milliseconds		**6Millis2000**			○	○			○	○
		5000 milliseconds		**7Millis5000**			○	○			○	○
	Buzzer1 - Off Time / Buzzer2 - Off Time	20 milliseconds	**Buzzer1OffTime / Buzzer2OffTime**	**0Millis20**			●	●			●	●
		40 milliseconds		**1Millis40**			○	○			○	○
		100 milliseconds		**2Millis100**			○	○			○	○
		200 milliseconds		**3Millis200**			○	○			○	○
		500 milliseconds		**4Millis500**			○	○			○	○
		1000 milliseconds		**5Millis1000**			○	○			○	○
		2000 milliseconds		**6Millis2000**			○	○			○	○
		5000 milliseconds		**7Millis5000**			○	○			○	○
	Buzzer1- Repeat / Buzzer2 - Repeat	1	**Buzzer1Repeat / Buzzer2Repeat**	**0Repeat1**			●	●			●	●
		2		**1Repeat2**			○	○			○	○
		3		**2Repeat3**			○	○			○	○
		5		**3Repeat5**			○	○			○	○
		10		**4Repeat10**			○	○			○	○
		15		**5Repeat15**			○	○			○	○
		20		**6Repeat20**			○	○			○	○

* ● is the default setting value

* TSP143(Cutter Model) :TSP100IIIW/LAN/BI/U, TSP100IIU, TSP143U, TSP143GT, TSP143LAN

** TSP113(Tear Bar Model) :TSP113U, TSP113GT, TSP113LAN

	Option Name		Command Name		Supported Model							
	option	value	[option]	[value]	TSP 143 *	TSP 113 **	TSP 654II	TSP 743II	TSP 847II	POP 10	MCP 31L/ 31LB	MCP 20/20B/ 21LB
mC-Sound Control	mC-Sound	No Use	MelodySpeaker Setting	0NoUse							●	
		Document Top		1DocumentTop							○	
		Document Bottom		2DocumentBtm							○	
	mC-Sound Sound Storage Area	1	MelodySpeaker SoundStorageArea	0Area1							●	
		2		1Area2							○	
	mC-Sound Sound Number	0	MelodySpeaker SoundNumber	0Number0							●	
		1		1Number1							○	
		2		2Number2							○	
		3		3Number3							○	
		4		4Number4							○	
		5		5Number5							○	
		6		6Number6							○	
		7		7Number7							○	
	mC-Sound Sound Volume	0(Mute)	MelodySpeaker SoundVolume	0Volume0							○	
		1		1Volume1							○	
		2(Low)		2Volume2							○	
		3		3Volume3							○	
		4		4Volume4							○	
		5		5Volume5							○	
		6(Medium)		6Volume6							●	
		7		7Volume7							○	
		8		8Volume8							○	
		9		9Volume9							○	
		10		10Volume10							○	
		11		11Volume11							○	
		12(High)		12Volume12							○	
		13		13Volume13							○	
		14		14Volume14							○	
		15		15Volume15							○	
	mC-Sound Repeat	1	MelodySpeaker Repeat	0Repeat1							●	
		2		1Repeat2							○	
		3		2Repeat3							○	
		4		3Repeat4							○	
		5		4Repeat5							○	
		6		5Repeat6							○	
		7		6Repeat7							○	
		8		7Repeat8							○	
		9		8Repeat9							○	
		10		9Repeat10							○	

* ●is the default setting value.

5. Revision History

Rev. No.	Date	Content
Rev. 1.0	Jan. 2009	New release Corresponded to the latest version (starcupsdrv3.0).
Rev. 2.0	Mar. 2010	TSP143IIU is supported.
Rev. 3.0	May. 2010	TSP800II is supported.
Rev. 4.0	Sep. 2010	Added support for Star cups driver 3.2.0. Added support for new models of 'Data Treatment Recover From Error Command' and 'Buzzer Command'.
Rev. 5.0	Dec. 2012	Added support for Star cups driver 3.4.0. TSP650II is supported.
Rev. 6.0	May 2014	Added support for Star cups driver 3.4.2. Added Bluetooth interface support to TSP700II, TSP800II and SP742.
Rev. 6.1	Jan. 2015	Added support for Star cups driver 3.5.0.
Rev. 6.2	Jun. 2016	Added support for Star cups driver 3.6.0. TSP100IIIW / LAN / BI are supported.
Rev. 6.3	Mar. 2017	TSP100IIIU is supported.
Rev. 6.4	Jun. 2018	mPOP, mC-Print3 and mC-Print2 are supported.
Rev. 6.5	Nov. 2018	mC-Sound is supported.

URL: http://www.starmicronics.com/support/