

# ***Software Manual***

## ***Linux***

### ***Supported Models***

- ♦ ***SP500 Series***
- ♦ ***SP700 Series***

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# Table of Contents

<b>1. Installation/Uninstallation Procedures .....</b>	<b>2</b>
1.1 Installing Printer Driver .....	2
1.2 Registering the Printer .....	4
1.3. Uninstallation Procedures .....	14
<b>2. Setting the Printer Functions .....</b>	<b>15</b>
2.1 Function List .....	17
<b>3. Guidelines for Using an Ethernet Environment .....</b>	<b>23</b>
3.1 Setting a Temporary IP Address.....	23
3.2 Setting the IP Address (TELNET Utility).....	24
<b>4. Guidelines for Using the lpr Command .....</b>	<b>26</b>
4.1 Function List .....	27
<b>5. Confirmed Operating Environments .....</b>	<b>29</b>
<b>6. Revision History .....</b>	<b>30</b>

## Introduction

This manual explains how to operate the CUPS printer driver using Fedora 9 as an example. Images provided are different for other versions of Fedora 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.

## Operating Environment

Distribution	Version	
	USB, Parallel, Ethernet	Bluetooth
Red Hat Enterprise Linuxb 32bit	6.6	6.6
CentOS 32bit	6.6	6.6
openSUSE 32bit	13.2 *	13.1 or earlier
Fedora 32bit	20 *	17 or earlier
ubuntu 32bit	14.04 LTS *	12.04 LTS or earlier, and 14.10

\*Bluetooth printers are not supported.  
Check OS version to use Bluetooth I/F.

# 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.
4. Navigate to the directory where the rpm file "starcupsdrv-x.x.x-x.i386.rpm" is located.

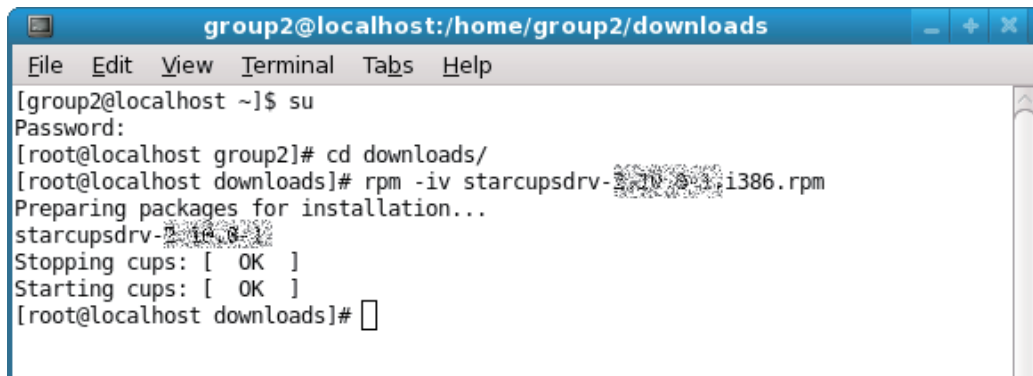
Note: The x.x.x-x is module version.

The yyyymmdd is the 8 digit date on which the package was release.

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

```
rpm -iv starcupsdrv-x.x.x-x.i386.rpm
```

The RPM has been installed.



```
group2@localhost:/home/group2/downloads
File Edit View Terminal Tabs Help
[group2@localhost ~]$ su
Password:
[root@localhost group2]# cd downloads/
[root@localhost downloads]# rpm -iv starcupsdrv-3.10.0-1.i386.rpm
Preparing packages for installation...
starcupsdrv-3.10.0-1
Stopping cups: [ OK ]
Starting cups: [ OK ]
[root@localhost downloads]#
```

**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
```

## ◆ Debian GNU/Linux, 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.

```
$ su -  
(Use the "su" command to enable root account privileges.)  
# apt-get update  
# apt-get install gcc  
# apt-get install libcups2-dev  
# apt-get install libcupsimage2-dev  
  
When using a Bluetooth Interface  
# apt-get install bluez-cups
```

It is not possible to attain administrator rights using su on ubuntu, so instead enter the sudo command at the top of the command.

**Ex.)**  
\$ sudo apt-get install gcc

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.**

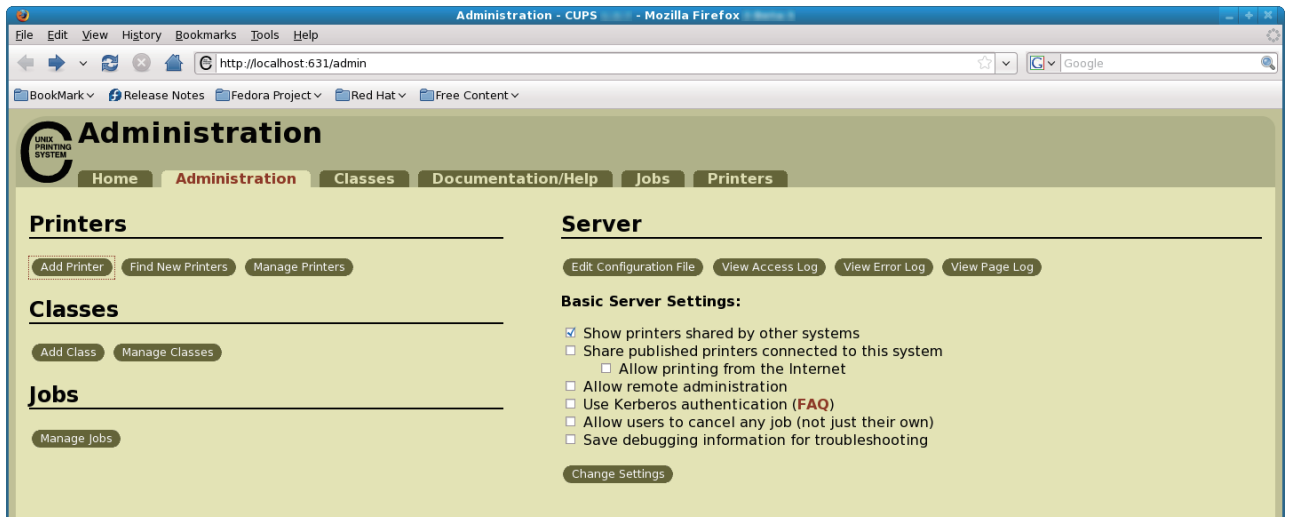
Next, enter the CUPS management screen (<http://localhost:631/admin>).  
(Refer to section 1.2. Registering the Printer for details.)

## 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 or Parallel Interface

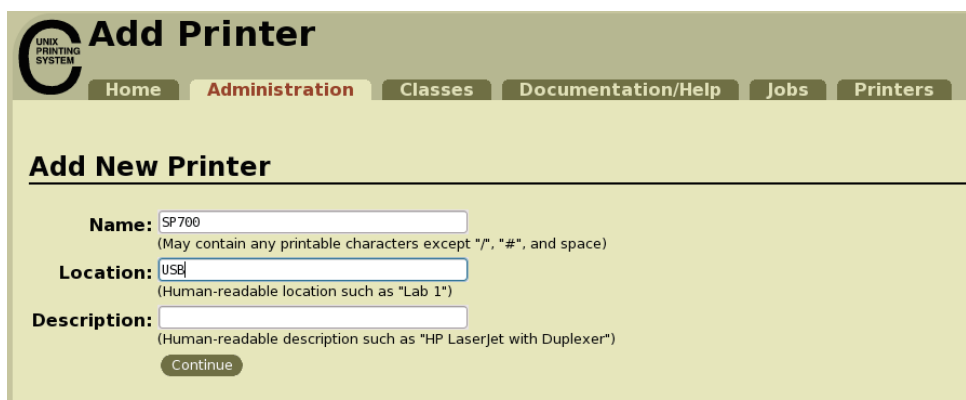
1. Open your favorite web browser and navigate to "http://localhost:631/admin".



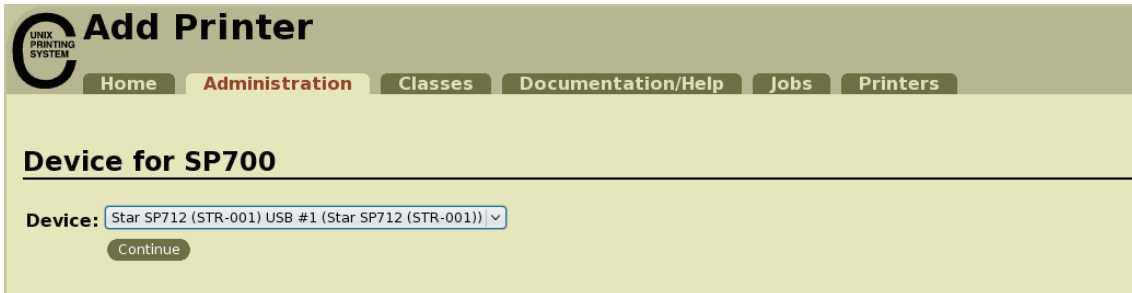
2. Click "Add Printer".

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

3. In the Add Printer screen, enter the printer name, location and description. Then click "Continue". Location, and Description can be left blank.



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

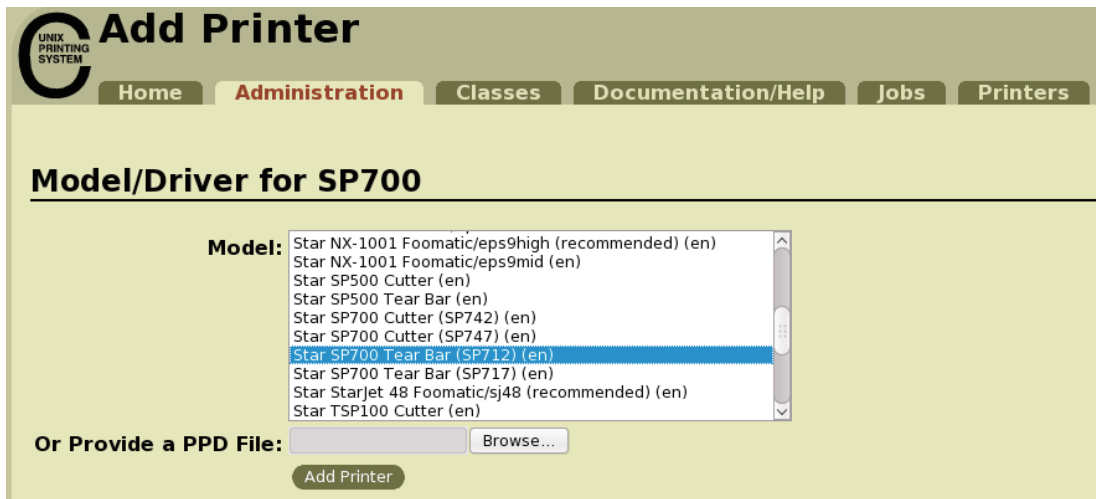


**Caution :** In the case of parallel interface, Star Model Name is not displayed in the Device pull-down menu.

In such cases, perform the following.

- 1) Select "LPT #1 (Unknown)" as the Device, then click "Continue".
- 2) Click "Add Printer" on Model/Driver screen.
- 3) Select "STAR" as the Make, then click "Continue".

5. Select printer model/driver. Then click "Add Printer".

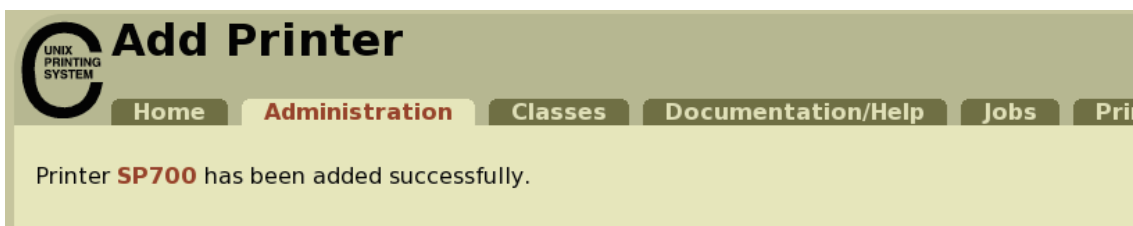


**Caution :** In some versions of CUPS, Star model name is not displayed in the model/driver pull-down menu.

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
```

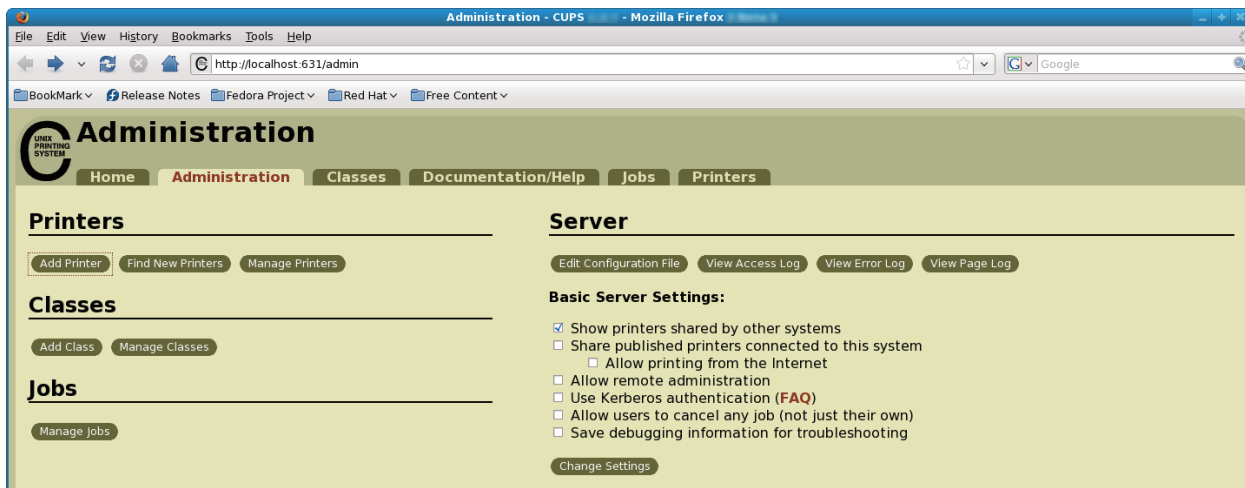
This completes printer installation and registration.





## 1.2.2 When using a Ethernet Interface

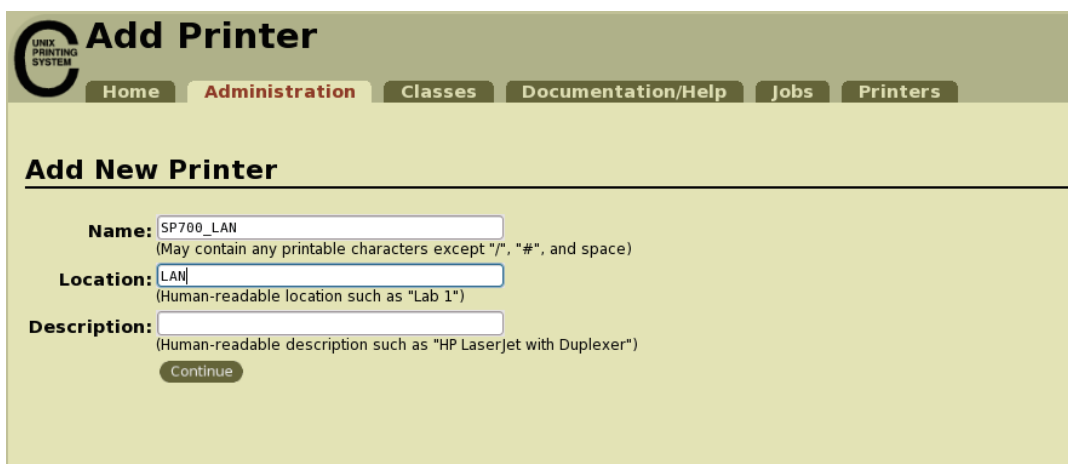
1. Open your favorite web browser and navigate to "http://localhost:631/admin".



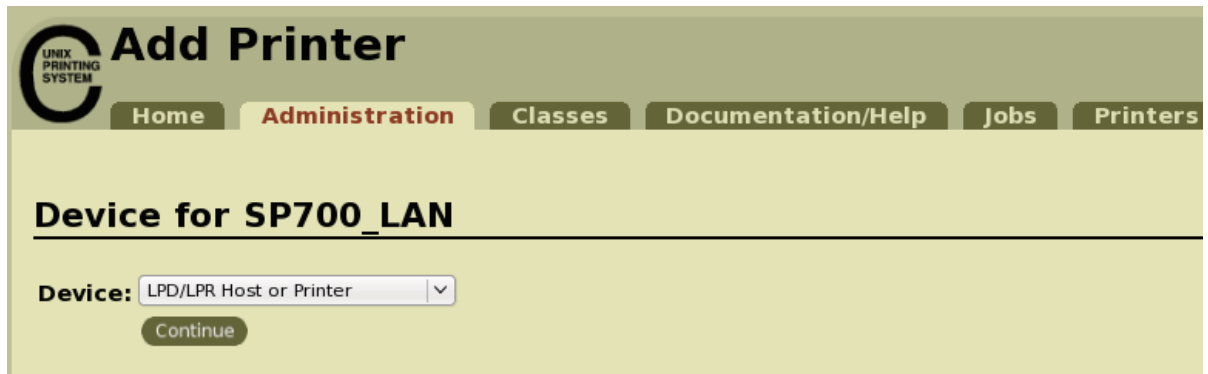
2. Click "Add Printer".

**Note:** When a dialog box is displayed requesting certification, enter the root password and press [Yes].

3. In the Add Printer screen, enter the printer name, location and description. Then click "Continue". Location, and Description can be left blank.



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



**Add Printer**

Home Administration Classes Documentation/Help Jobs Printers

**Device for SP700\_LAN**

Device: LPD/LPR Host or Printer

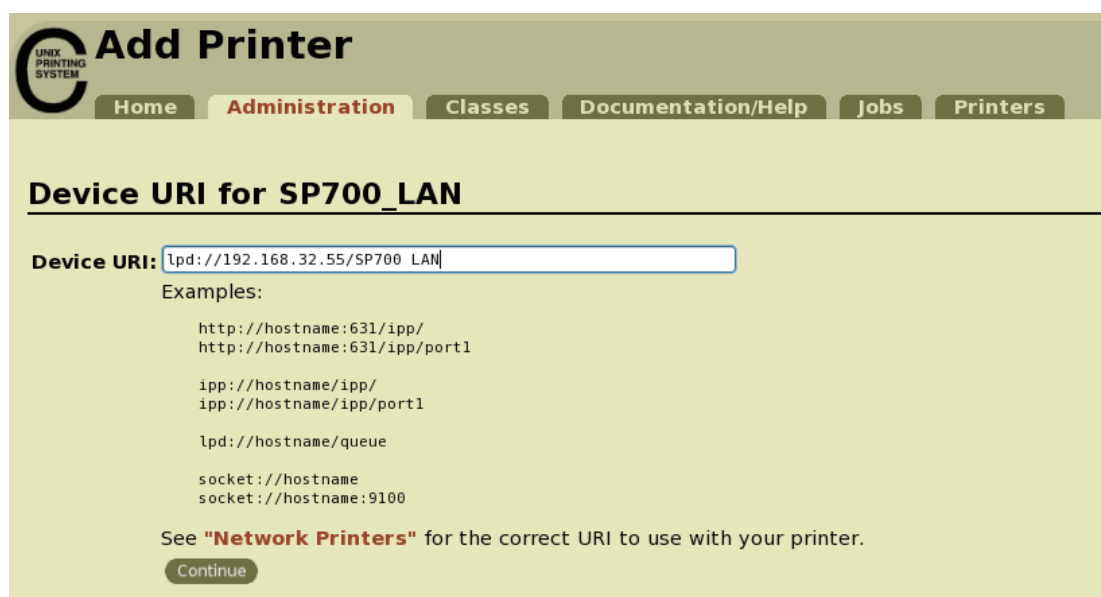
Continue

5. 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 "Add Printer".



**Add Printer**

Home Administration Classes Documentation/Help Jobs Printers

**Device URI for SP700\_LAN**

Device URI: lpd://192.168.32.55/SP700\_LAN

Examples:

```
http://hostname:631/ipp/
http://hostname:631/ipp/port1

ipp://hostname/ipp/
ipp://hostname/ipp/port1

lpd://hostname/queue

socket://hostname
socket://hostname:9100
```

See "**Network Printers**" for the correct URI to use with your printer.

Continue

**Note** 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

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

The screenshot shows the 'Add Printer' web interface. At the top, there is a navigation bar with 'Home', 'Administration', 'Classes', 'Documentation/Help', 'Jobs', and 'Printers'. The main heading is 'Add Printer'. Below that, the title is 'Make/Manufacturer for SP700\_LAN'. A 'Make:' label is followed by a dropdown menu with the following options: Samsung, Savin, Seiko, Sharp, SiPix, Sony, STAR (highlighted), Tally, Tektronix, Toshiba, and TOCUMA TEC CO. Below the menu is a 'Continue' button. At the bottom, there is a field for 'Or Provide a PPD File:' with a 'Browse...' button and an 'Add Printer' button.

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

The screenshot shows the 'Add Printer' web interface. At the top, there is a navigation bar with 'Home', 'Administration', 'Classes', 'Documentation/Help', 'Jobs', and 'Printers'. The main heading is 'Add Printer'. Below that, the title is 'Model/Driver for SP700\_LAN'. A 'Model:' label is followed by a dropdown menu with the following options: Star NX-1001 Foomatic/eps9high (recommended) (en), Star NX-1001 Foomatic/eps9mid (en), Star SP500 Cutter (en), Star SP500 Tear Bar (en), Star SP700 Cutter (SP742) (en), Star SP700 Cutter (SP747) (en), Star SP700 Tear Bar (SP712) (en) (highlighted), Star SP700 Tear Bar (SP717) (en), Star StarJet 48 Foomatic/sj48 (recommended) (en), and Star TSP100 Cutter (en). Below the menu is a 'Browse...' button. At the bottom, there is a field for 'Or Provide a PPD File:' with a 'Browse...' button and an 'Add Printer' button.

**Caution:** 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.

The screenshot shows the 'Add Printer' web interface. At the top, there is a navigation bar with 'Home', 'Administration', 'Classes', 'Documentation/Help', 'Jobs', and 'Printers'. The main heading is 'Add Printer'. Below that, the message reads: 'Printer SP700\_LAN has been added successfully.'

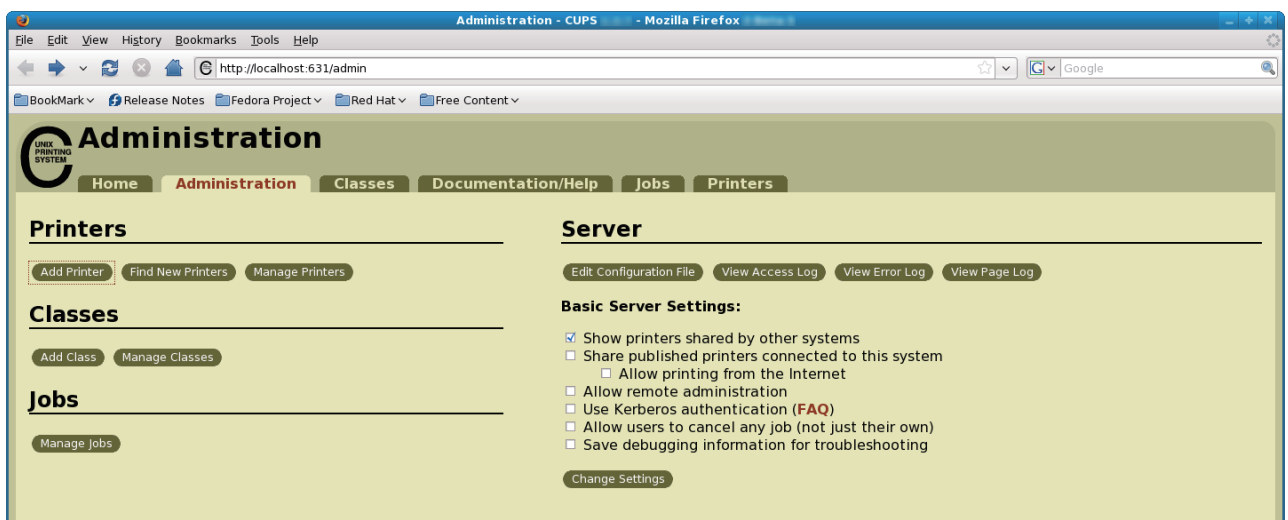
### 1.2.3 With the Bluetooth Interface

The distributions that have been verified are shown in below.

Fedora13(32bit)/CentOS6.3(32bit)/Ubuntu12.04 LTS(32bit)/RedHatEnterpriseLinux6.3(32bit)

- 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.
  - 3) Click the on Bluetooth icon  , and select the "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 device (Bluetooth) to which the printer is connected. Then click "Continue".

### Add Printer

**Local Printers:**  SCSI Printer  
 Serial Port #1  
 Star Micronics (Bluetooth) (Star Micronics)

**Discovered Network Printers:**

**Other Network Printers:**  Internet Printing Protocol (https)  
 AppSocket/HP JetDirect  
 Internet Printing Protocol (ipp)  
 Internet Printing Protocol (http)  
 LPD/LPR Host or Printer

Continue

◆ **When the Bluetooth device is not displayed**

- (1) Select the "LPD/LPR Host or Printer". Then click "Continue".
- (2) Specify the device URI for the printer as shown below and click "Continue".

`bluetooth://<<Bluetooth MacAddress>>`

### Add Printer

**Connection:**

Examples:

```
http://hostname:631/ipp/  
http://hostname:631/ipp/port1  
  
ipp://hostname/ipp/  
ipp://hostname/ipp/port1  
  
lpd://hostname/queue  
  
socket://hostname  
socket://hostname:9100
```

See "Network Printers" for the correct URI to use with your printer.

Continue

- In the Add Printer screen, enter the printer name, location and description. Then click "Continue". Location, and Description can be left blank.

## Add Printer

**Name:**  (May contain any printable characters except "/", "#", and space)

**Description:**  (Human-readable description such as "HP LaserJet with Duplexer")

**Location:**  (Human-readable location such as "Lab 1")

**Connection:** bluetooth://0012F3196934

**Sharing:**  Share This Printer

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

## Add Printer

**Name:** TOPHON

**Description:** Star\_Micronics

**Location:**

**Connection:** bluetooth://0012F3196939

**Sharing:** Do Not Share This Printer

**Make:** 

- Dymo
- Epson
- Generic
- HP
- Intellitech
- Oki
- Raw
- STAR
- Zebra

7. Select the device (Bluetooth) to which the printer is connected. Then click "Continue".

## Add Printer

**Local Printers:**  SCSI Printer  
 Serial Port #1  
 Star Micronics (Bluetooth) (Star Micronics)

**Discovered Network Printers:**

**Other Network Printers:**  Internet Printing Protocol (https)  
 AppSocket/HP JetDirect  
 Internet Printing Protocol (ipp)  
 Internet Printing Protocol (http)  
 LPD/LPR Host or Printer

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

**Name:** Star\_Micronics  
**Description:** Star Micronics  
**Location:**  
**Connection:** bluetooth://0012F3196934  
**Sharing:** Do Not Share This Printer  
**Make:** STAR

**Model:**   
 Star TSP100 Cutter (en)  
 Star TSP100 Tear Bar (en)  
 Star TSP100GT Cutter (en)  
 Star TSP100GT Tear Bar (en)  
 Star  
 Star TSP650 Tear Bar (en)  
 Star TSP700II (en)  
 Star TSP800II (en)  
 Star TSP828L (en)

**Or Provide a PPD File:**

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

## Set Default Options for Star\_Micronics

---

<b>General</b>	<b>Output Options</b>	<b>Cut Options</b>	<b>Cash Drawer Control</b>	<b>Buzzer 1</b>
<b>Control</b>	<b>Buzzer 2 Control</b>	<b>Data Treatment</b>	<b>Recover From Error</b>	<b>Banners</b>
<b>Policies</b>				

---

**Policies**

**Error Policy:**

**Operation Policy:**

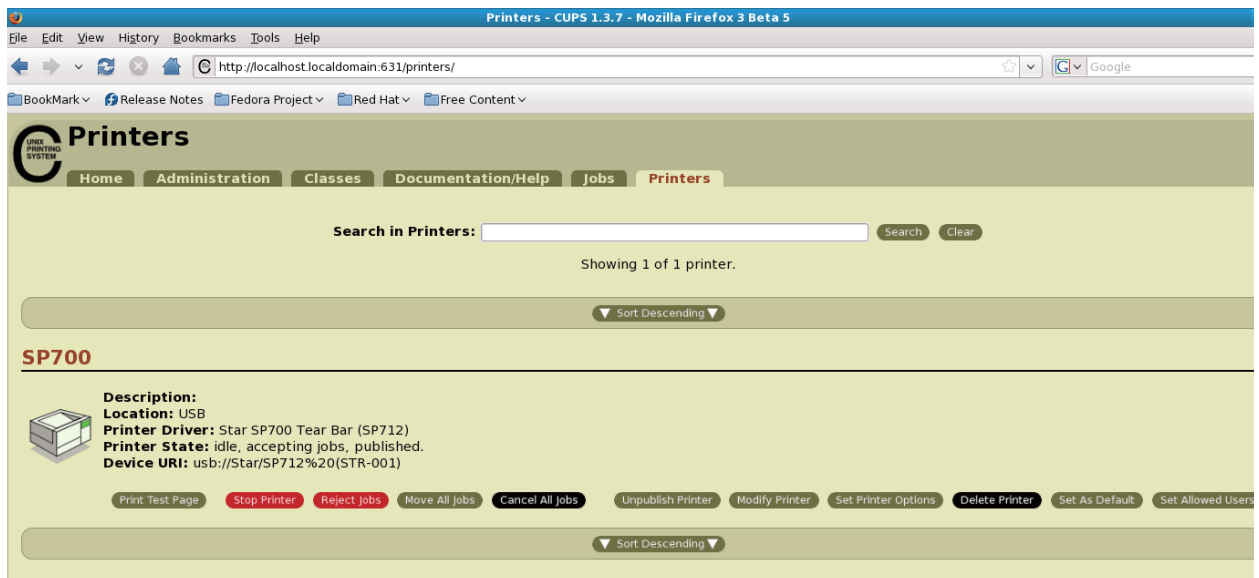
This completes printer installation and registration.



## 1.3. Uninstallation Procedures

To uninstall the driver, proceed as follows.

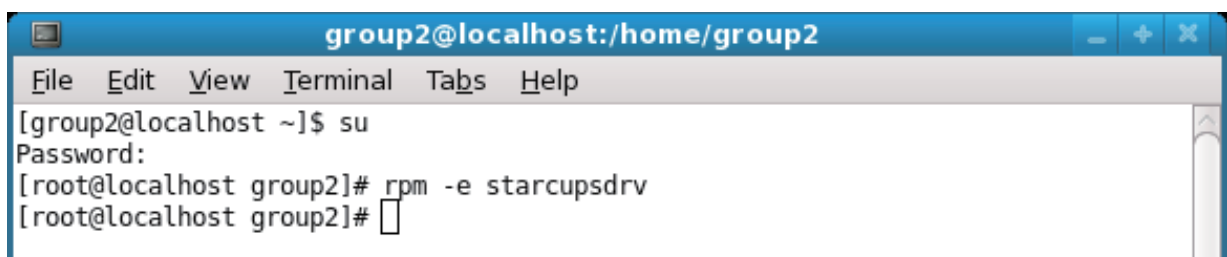
1. Open your favorite web browser and navigate to "http://localhost:631/printers". Click on the "Delete Printer" button to delete the registered printers.



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

```
$ su
```
4. Run the rpm command using the "e" switches.
 

```
rpm -e starcupsdrv
```



**Note:** Debian GNU/Linux, ubuntu uninstalling procedures

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

Enter the following if work in the notes on page 4 or 7 was performed.

```
# rm -fr /usr/share/ppd/star
```

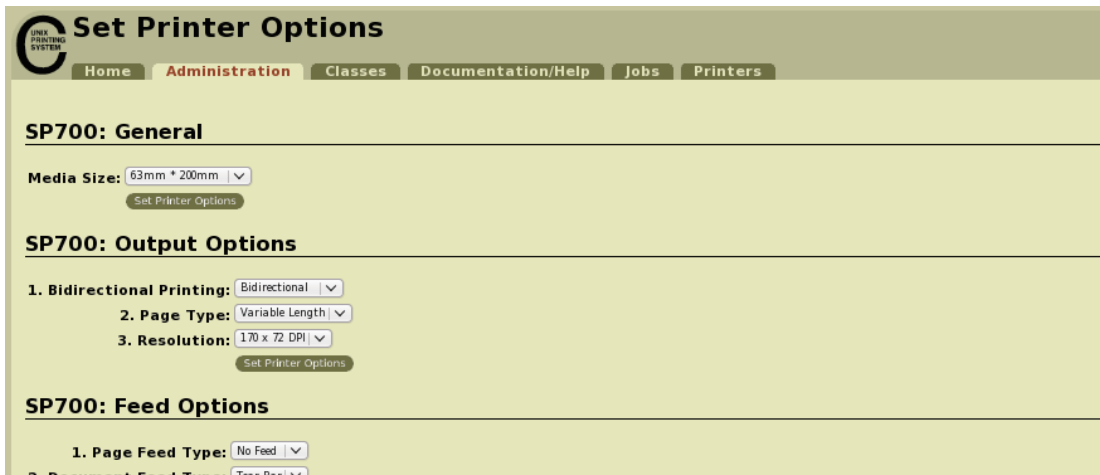
## 2. Setting the Printer Functions

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 on the "Manage Printers" button.



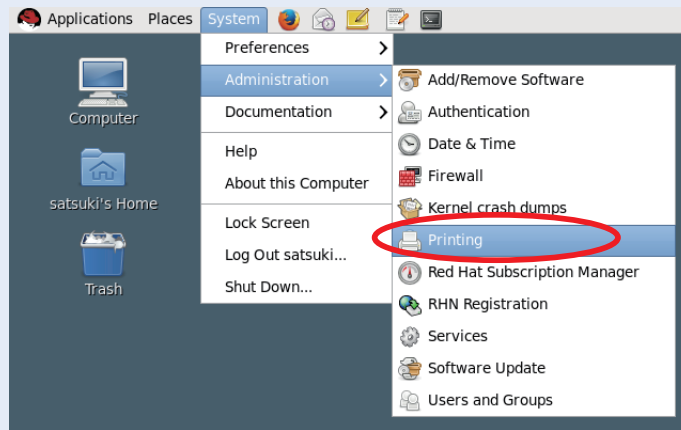
2. An earlier printer driver is registered, so to change the setting, click on the "Set Printer Options" button.



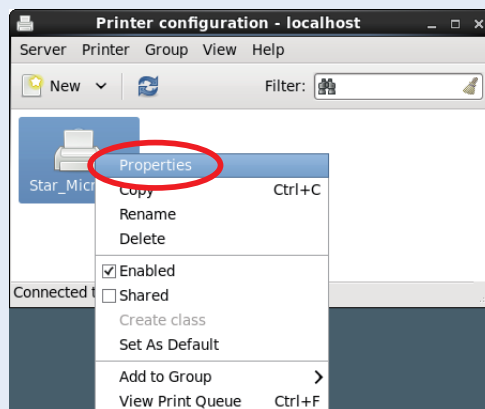
◆ When the printer function is not displayed on the CUPS management screen

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.

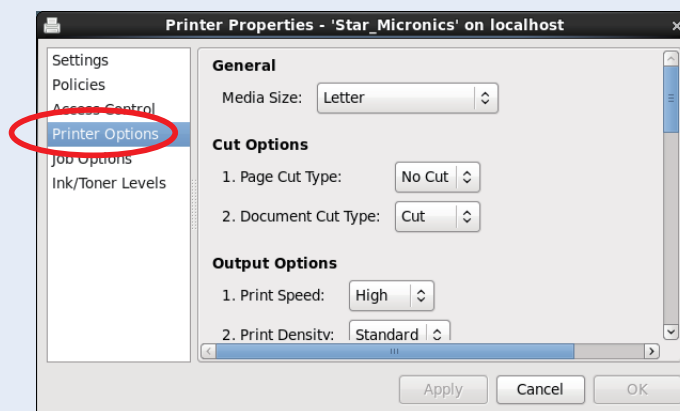
- (1) Open "System - Administration - Printing".



- (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 next page shows the paper sizes.

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

The following paper sizes are available and can be set.

Paper Size	Supported Models					
	SP512	SP542	SP712	SP717	SP742	SP747
45 * 30mm	○	○	○	○	○	○
45 * 40mm	○	○	○	○	○	○
45 * 50mm	○	○	○	○	○	○
45 * 60mm	○	○	○	○	○	○
45 * 70mm	○	○	○	○	○	○
45 * 80mm	○	○	○	○	○	○
45 * 90mm	○	○	○	○	○	○
45 * 100mm	○	○	○	○	○	○
45 * 110mm	○	○	○	○	○	○
45 * 120mm	○	○	○	○	○	○
45 * 130mm	○	○	○	○	○	○
45 * 140mm	○	○	○	○	○	○
45 * 150mm	○	○	○	○	○	○
45 * 160mm	○	○	○	○	○	○
45 * 170mm	○	○	○	○	○	○
45 * 180mm	○	○	○	○	○	○
45 * 190mm	○	○	○	○	○	○
45 * 200mm	○	○	○	○	○	○
45 * 1500mm			○	○	○	○
45 * 2000mm	○	○	○	○	○	○
48 * 30mm	○	○	○	○	○	○
48 * 40mm	○	○	○	○	○	○
48 * 50mm	○	○	○	○	○	○
48 * 60mm	○	○	○	○	○	○
48 * 70mm	○	○	○	○	○	○
48 * 80mm	○	○	○	○	○	○
48 * 90mm	○	○	○	○	○	○
48 * 100mm	○	○	○	○	○	○
48 * 110mm	○	○	○	○	○	○
48 * 120mm	○	○	○	○	○	○
48 * 130mm	○	○	○	○	○	○
48 * 140mm	○	○	○	○	○	○
48 * 150mm	○	○	○	○	○	○
48 * 160mm	○	○	○	○	○	○
48 * 170mm	○	○	○	○	○	○
48 * 180mm	○	○	○	○	○	○
48 * 190mm	○	○	○	○	○	○
48 * 200mm	○	○	○	○	○	○
48 * 1500mm			○	○	○	○
48 * 2000mm	○	○	○	○	○	○

Paper Size	Supported Models					
	SP512	SP542	SP712	SP717	SP742	SP747
60 * 30mm	○	○	○	○	○	○
60 * 40mm	○	○	○	○	○	○
60 * 50mm	○	○	○	○	○	○
60 * 60mm	○	○	○	○	○	○
60 * 70mm	○	○	○	○	○	○
60 * 80mm	○	○	○	○	○	○
60 * 90mm	○	○	○	○	○	○
60 * 100mm	○	○	○	○	○	○
60 * 110mm	○	○	○	○	○	○
60 * 120mm	○	○	○	○	○	○
60 * 130mm	○	○	○	○	○	○
60 * 140mm	○	○	○	○	○	○
60 * 150mm	○	○	○	○	○	○
60 * 160mm	○	○	○	○	○	○
60 * 170mm	○	○	○	○	○	○
60 * 180mm	○	○	○	○	○	○
60 * 190mm	○	○	○	○	○	○
60 * 200mm	○	○	○	○	○	○
60 * 1500mm			○	○	○	○
60 * 2000mm	○	○	○	○	○	○
63 * 30mm	○	○	○	○	○	○
63 * 40mm	○	○	○	○	○	○
63 * 50mm	○	○	○	○	○	○
63 * 60mm	○	○	○	○	○	○
63 * 70mm	○	○	○	○	○	○
63 * 80mm	○	○	○	○	○	○
63 * 90mm	○	○	○	○	○	○
63 * 100mm	○	○	○	○	○	○
63 * 110mm	○	○	○	○	○	○
63 * 120mm	○	○	○	○	○	○
63 * 130mm	○	○	○	○	○	○
63 * 140mm	○	○	○	○	○	○
63 * 150mm	○	○	○	○	○	○
63 * 160mm	○	○	○	○	○	○
63 * 170mm	○	○	○	○	○	○
63 * 180mm	○	○	○	○	○	○
63 * 190mm	○	○	○	○	○	○
63 * 200mm	●	●	●	●	●	●
60 * 1500mm			○	○	○	○
63 * 2000mm	○	○	○	○	○	○

\* ● is the default setting value.

In some cases, they won't function depending on the application being used

■ Output Options

• Bidirectional Printing:

Use this feature to select either unidirectional or bidirectional printing. Note that the setting affects both the print speed and the print quality. Available settings are as follows.

Setting Value	Default Value	Details
Budirectional	<input type="radio"/>	Printer prints in both directions.
Unidirectional	<input type="checkbox"/>	Printer prints in one direction only.

• Page Type:

This sets the page type.

Setting Value	Default Value	Details
Variable Length	<input type="radio"/>	Does not output blank data until the bottom of the page. Receipt ends after final data is printed.
Fixed Length	<input type="checkbox"/>	Outputs blank data as a blank until the bottom of the page. Receipt ends after printing the length specified by paper size.

• Resolution:

This sets the print quality (resolution).

Setting Value	Default Value	Details
170 x 72 DPI	<input type="radio"/>	Print width is 170 dpi; print height is 72 dpi.
85 x 72 DPI	<input type="checkbox"/>	Print width is 85 dpi; print height is 72 dpi.

■ Data Treatment Recover From Error

• Data Treatment Recover From Error:

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

Setting	Default	Details
No Use	<input type="checkbox"/>	After the recovery, the unprinted data of the remainder is printed after the recovery from the error.
Clear Data By Document Unit	<input type="radio"/>	After the recovery, the unprinted data of the remainder is canceled after the recovery from the error.

**Point!** This function is supported by SP700 series.

**Note:** This feature does not operate correctly with old firmware. If you are using version 3.0 or earlier of the firmware, select 'No Use'. You can check the firmware version by executing Self-Printing. To update the printer's firmware, contact your STAR dealer.

■ Cut Options ( Cutter Model )

• Page Cut Type:

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

Setting Value	Default Value	Details
No Cut	<input type="radio"/>	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 Value	Default Value	Details
No Cut		Does not perform a cut and page feed.
Partial Cut	<input type="radio"/>	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.

■ 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 Value	Default Value	Details
No Feed	<input type="radio"/>	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 Value	Default Value	Details
No Feed		The paper feed operation is not performed.
Tear Bar	<input type="radio"/>	Paper is fed to the tear bar (cutting position).

## ■ 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:** 1) Do not enable the cash drawer and buzzer at the same time.  
 2) 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, such as a cash drawer, is connected, select the 'No Use'. There is the possibility that the connected device and the circuit can be damaged by using the buzzer control command.

• 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:** 1) Do not enable the cash drawer and buzzer at the same time.  
 2) The buzzer ringing time and off time should not exceed 90 seconds in total.

### 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

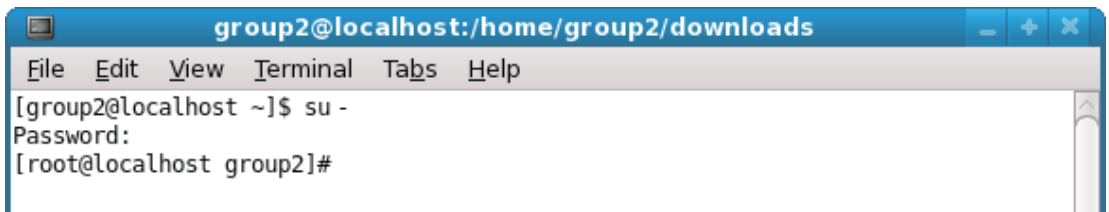
Use the following procedures to set a temporary IP address to the printer. By setting a temporary IP address, it is possible to connect to a printer that has not been set with an IP address.

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

**Note**

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.

Use "exit" command to exit super user status.

## 3.2 Setting the IP Address (TELNET Utility)

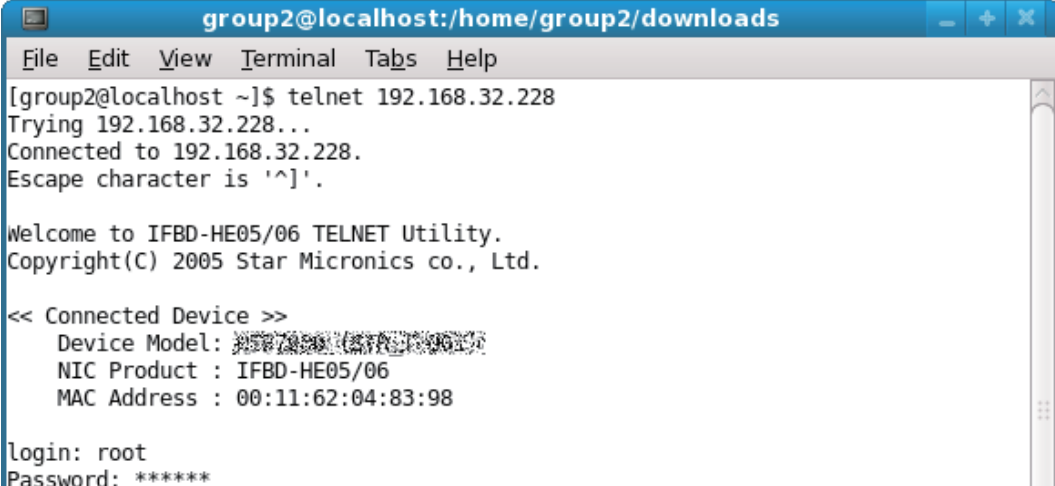
The Telnet command connects directly to the printer to make settings.

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.



```
group2@localhost:/home/group2/downloads
File Edit View Terminal Tabs Help
[group2@localhost ~]$ telnet 192.168.32.228
Trying 192.168.32.228...
Connected to 192.168.32.228.
Escape character is '^]'.

Welcome to IFBD-HE05/06 TELNET Utility.
Copyright(C) 2005 Star Micronics co., Ltd.

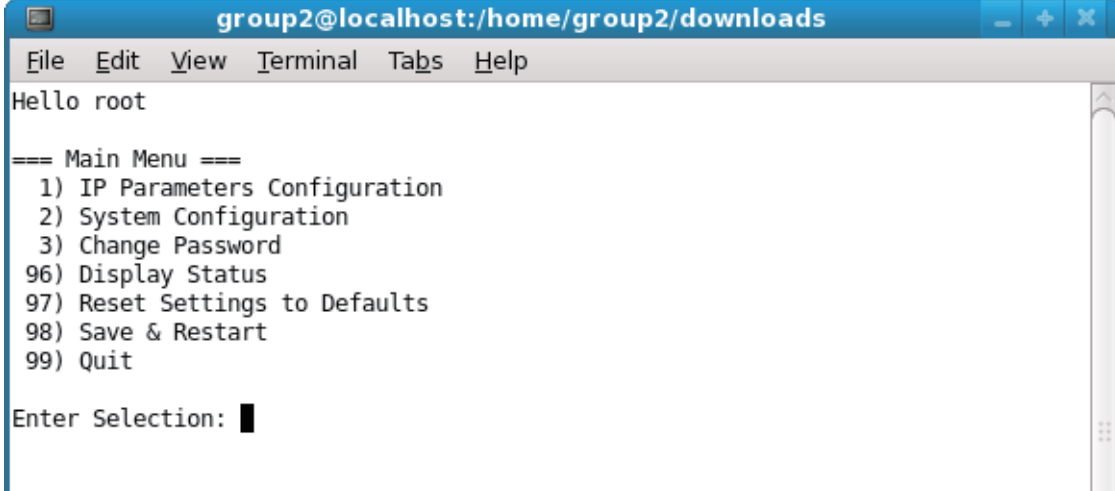
<< Connected Device >>
Device Model: 857298 (376) 0010
NIC Product : IFBD-HE05/06
MAC Address : 00:11:62:04:83:98

login: root
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.

A screenshot of a terminal window titled "group2@localhost:/home/group2/downloads". The window has a menu bar with "File", "Edit", "View", "Terminal", "Tabs", and "Help". The terminal output shows "Hello root" followed by a menu titled "=== Main Menu ===" with the following options: "1) IP Parameters Configuration", "2) System Configuration", "3) Change Password", "96) Display Status", "97) Reset Settings to Defaults", "98) Save & Restart", and "99) Quit". Below the menu, it says "Enter Selection:" followed by a cursor.

```
group2@localhost:/home/group2/downloads
File Edit View Terminal Tabs Help
Hello root
=== Main Menu ===
 1) IP Parameters Configuration
 2) System Configuration
 3) Change Password
96) Display Status
97) Reset Settings to Defaults
98) Save & Restart
99) Quit
Enter 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 using 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 :    SP700
File Name :      sample1.txt
Paper Size * :   63*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 SP700 -o media="X63MMY200MM" -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 ]	SP512	SP542	SP712	SP717	SP742	SP747
Output Option	Bidirectional Printing	Bidirectional	BidiPrinting	0Bidirectional	●	●	●	●	●	●
		Unidirectional		1Unidirectional	○	○	○	○	○	○
	Page Type	Variable Length	PageType	0Variable	●	●	●	●	●	●
		Fixed Length		1Fixed	○	○	○	○	○	○
	Resolution	170 x 72 DPI	Resolution	170x72dpi	●	●	●	●	●	●
85 x 72 DPI		85x72dpi		○	○	○	○	○	○	
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		○				
Feed Options (TearBar)	Page Feed Type	No Feed	PageCutType	0NoCutPage	●		●	●		
		Tear Bar		3TearBarPage	○		○	○		
	Document Feed Type	No Feed	DocCutType	0NoCutDoc	○		○	○		
		Tear Bar		3TearBarDoc	●		●	●		
Cash Drawer Control	Cash Drawer	Do Not Open Drawers	CashDrawerSetting	0DoNotOpenDrawers	●	●	●	●	●	●
		Open Drawer 1		1OpenDrawer1	○	○	○	○	○	○
		Open Drawer 2		2OpenDrawer2	○	○	○	○	○	○
		Open Drawer 1 and 2		3OpenDrawer3	○	○	○	○	○	○
	Cash Drawer 1 Pulsh Width	10 milliseconds	CashDrawer1PulseWidth	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	○	○	○	○	○	○			
Data Treatment Recover From Error	Data Treatment Recover From Error	No Use	DataTreatmentRecoverFromError	0NoUse			○	○	○	○
		Clear Data By Document Unit		1ClearDataByDocumentUnit			●	●	●	●

	Option Name		Command		Supported Model					
	option	value	[ option ]	[ value ]	SP512	SP542	SP712	SP717	SP742	SP747
Buzzer1 Control / Buzzer2 Control	Buzzer1 / 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.

## 5. Confirmed Operating Environments

Distribution	Version	
	USB, Parallel, Ethernet	Bluetooth
Red Hat Enterprise Linuxb 32bit	6.6	6.6
CentOS 32bit	6.6	6.6
openSUSE 32bit	13.2*	13.1
Fedora 32bit	20*	17
ubuntu 32bit	14.04 LTS*	12.04 LTS

\* Bluetooth is not supported.







*URL: <http://www.starmicronics.com/support/>*