WorkCentre 5020/DN
Linux Print Driver User Guide

XE3028EN0-1

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Writing Conventions

The following conventions are used in this manual:

IMPORTANT	Indicates important information.
NOTE	Indicates additional information.
REFERENCE	Indicates reference source.
“ “	Indicates messages, file names, entry examples, reference chapter titles, and reference manuals.
[ ]	Indicates the names of the screens, menus, buttons, and text boxes displayed on the printer control panel and computer monitors.
< >	Indicates names or values that change during execution.

- This manual uses the operations of Debian4.0r0 as examples. For other systems, the displays may be different.

1. Before Installing the Print Driver

Check the following before installing the print driver.

Operating Environment

Environments that are confirmed for the operations of the Linux print driver are as follows. This print driver uses CUPS (Common UNIX Printing System) as the printing system.

■ Distribution and CUPS Version

- Fedora Core 6 : CUPS Version 1.2.12
- Mandriva 2007 Spring : CUPS Version 1.2.10
- Ubuntu 7.04 : CUPS Version 1.2.8
- Debian 4.0r0 : CUPS Version 1.2.7
- Open SUSE 10.2 : CUPS Version 1.2.7

NOTE

- For the latest details concerning the operating environment requirements, refer to “readme.txt”.

■ Hardware Environment

- PC

  A personal computer that is installed with a x86-compatible, 32-bit CPU, and various Linux distributions to be used

- Memory capacity

  Compliant with the specifications recommended by the distribution

■ Interface

- Ethernet (supported protocol: LPR (TCP/IP))
- USB

  The USB interface must be equipped as standard. (However, this does not guarantee all operations of devices supporting USB.)

Checking the Network Environment

Check the following settings before installing the print driver when using the device in a network environment (LPR protocol) connected by Ethernet:

At the computer	At the printer
Settings for IP address, and for using TCP/IP environment are configured.	• IP address is set • LPD protocol is enabled (Factory default: Enable)

REFERENCE

- The device settings can be checked by printing the Functions Setting List. For details on the Functions Setting List, refer to the manual that is supplied with the device.
- For details on the methods to configure the computer, refer to the manual that is supplied with the computer.
- This printer does not support IPv6.

2. Installing the Print Driver

Two installers (the RPM and deb packages) are provided for this printer to install the Linux print driver on your computer. You can use these installers to install and upgrade the print driver.

After installing the print driver, create a print queue.

Downloading the Installer

You can use one of the provided installers depending on the Linux distribution in use. Download these files from our company's website to your computer.

Linux distribution in use	Installer file name
• Fedora Core 6 • Mandriva 2007 Spring • Open SUSE 10.2	xrworkcentre5020dn-x.x.x-x.i386.rpm
• Ubuntu 7.04 • Debian 4.0r0	xrworkcentre5020dn_x.x.x-x_i386.deb

NOTE

• "x.x.x-x" indicates the version of the installer.

The URL of our company's website is as follows. Users are reminded that they are liable for the Internet charges incurred.

http://www.xerox.com/

Installing / Upgrading the Print Driver

■When using the RPM package

From the command line of the terminal software, specify the RPM package to install or upgrade the print driver.

NOTE

• The procedure to newly install a print driver is explained here as an example. To upgrade the installed print driver, replace "-ivh" in the rpm command options with "-Uvh" in step 3.

1. Activate the terminal, and log in as a super user.

NOTE

• The activation method of the terminal varies with the distribution. Refer to the manual of each distribution.

2. If necessary, change the current directory to the directory containing the RPM package.

NOTE

• Alternatively, you can specify the path to the folder in step 3.

3. To install the print driver, enter the following command (where “x.x.x-x” is the installer version).

```
# rpm -ivh xrworkcentre5020dn-x.x.x-x.i386.rpm
```

The following screen is displayed, and the installation of the print driver is completed.

```
Preparing...                ########################### [100%]
   1:xrworkcentre5020dn     ########################### [100%]
#
```

Next, proceed to "Creating a Print Queue (p.7)".

■When using the deb package

From the command line of the terminal software, specify the deb package to install or upgrade the print driver.

NOTE

- The procedure to newly install a print driver is explained here. To upgrade the print driver that has already been installed, uninstall the installed print driver first, and then install a new print driver by following the procedure below.

REFERENCE

- For information on how to uninstall the print driver, refer to "Uninstalling the Print Driver (p.15)".

1. Activate the terminal.
   NOTE
   - The activation method of the terminal varies with the distribution. Refer to the manual of each distribution.

2. If necessary, change the current directory to the directory containing the deb package.
   NOTE
   - Alternatively, you can specify the path to the folder in step 3.

3. To install the print driver, enter the following command (where “x.x.x-x” is the installer version).

```
$ sudo dpkg -i xrworkcentre5020dn_x.x.x-x_i386.deb
```

NOTE

- When using Debian, you can also install the print driver without using the sudo command. However, you must log in as a super user (root) in the terminal window when installing the print driver without using the sudo command.

4. If you are prompted to enter a password, enter the password of a user who has privileges to perform the administrative tasks.

```
Password:password
```

When the following messages are displayed, the installation of the print driver is complete.

```
Selecting previously deselected package xrworkcentre5020dn.
(Reading database ...104951 files and directories currently installed.)
Unpacking xrworkcentre5020dn (from xrworkcentre5020dn_x.x.x-x_i386.deb)
...
Setting up xrworkcentre5020dn (x.x.x-x) ...
```

5. To restart CUPS, enter the following commands.

```
$ sudo /etc/init.d/cupsys restart
*Restarting Common Unix Printing System: cupsd                [ OK ]
```

Next, proceed to the following section, "Creating a Print Queue".

Creating a Print Queue

To use the printer in a Linux environment, you must create a print queue after installing the print driver.

NOTE

- The following procedure explains how to create a print queue from the CUPS web management site (http://localhost:631/) using a web browser.

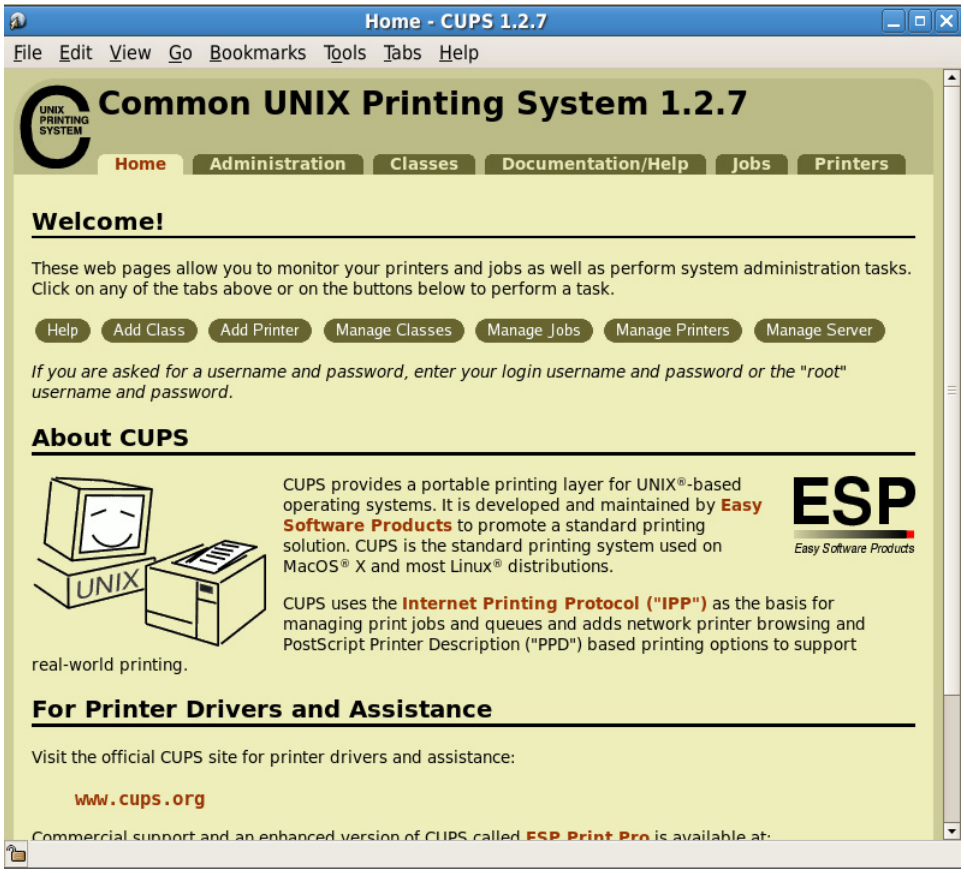
1. Check that the printer is switched on.
   Also check that the computer and the printer are correctly connected with an interface cable.

2. Activate a web browser, and enter the following URL at the address column to access the CUPS web management site.

```
http://localhost:631/
```

The CUPS web management site is displayed.

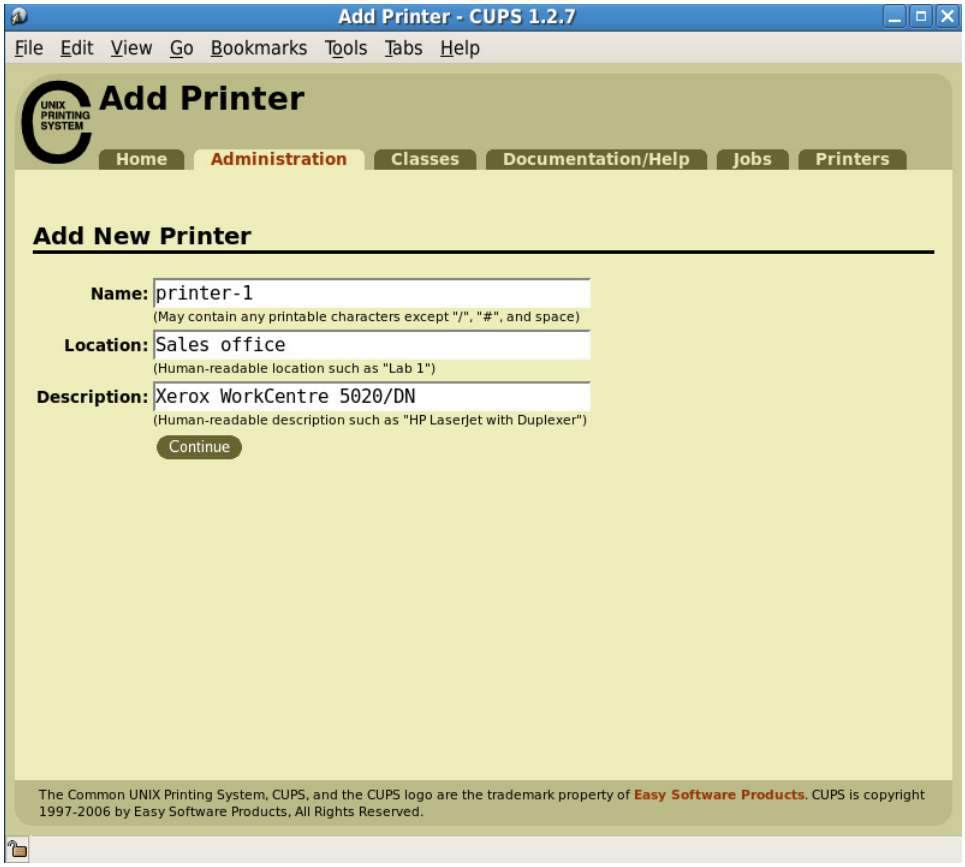
3. Click [Add Printer].



4. Enter information in [Name], [Location], and [Description], and click [Continue].

NOTE

- It is optional whether or not to enter information in [Location] and [Description].



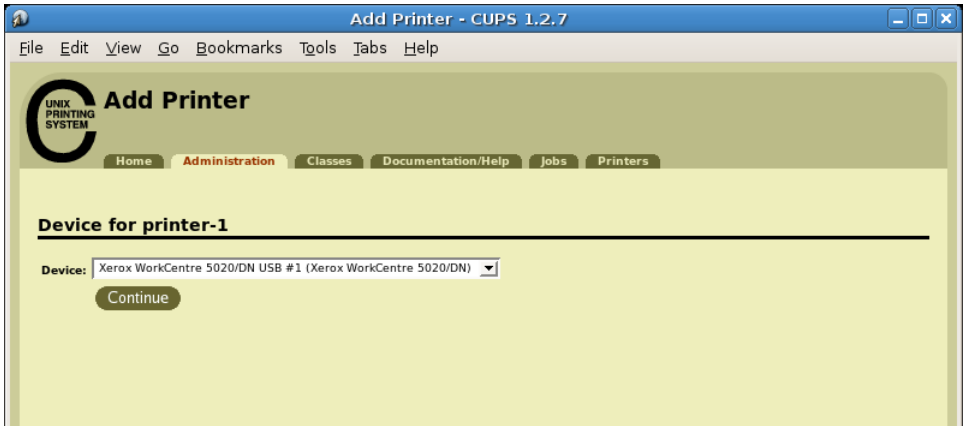
5. Set up the printer according to the printer connection method.

■For the USB connection

1. From [Device], select [Xerox WorkCentre 5020/DN USB #1], and click [Continue].

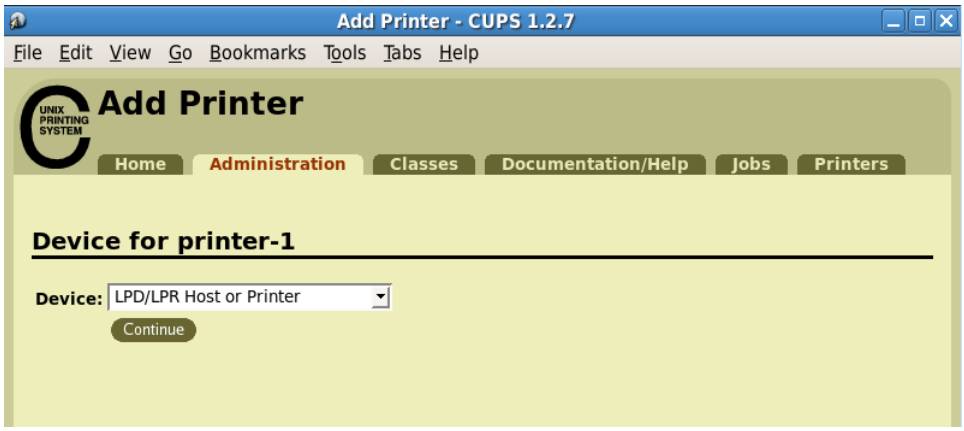
NOTE

- If the printer is switched on and connected to the computer with a USB cable correctly, the printer name “Xerox WorkCentre 5020/DN” followed by “USB #1” is displayed in [Device].
- The number “#1” may differ depending on the environment used.

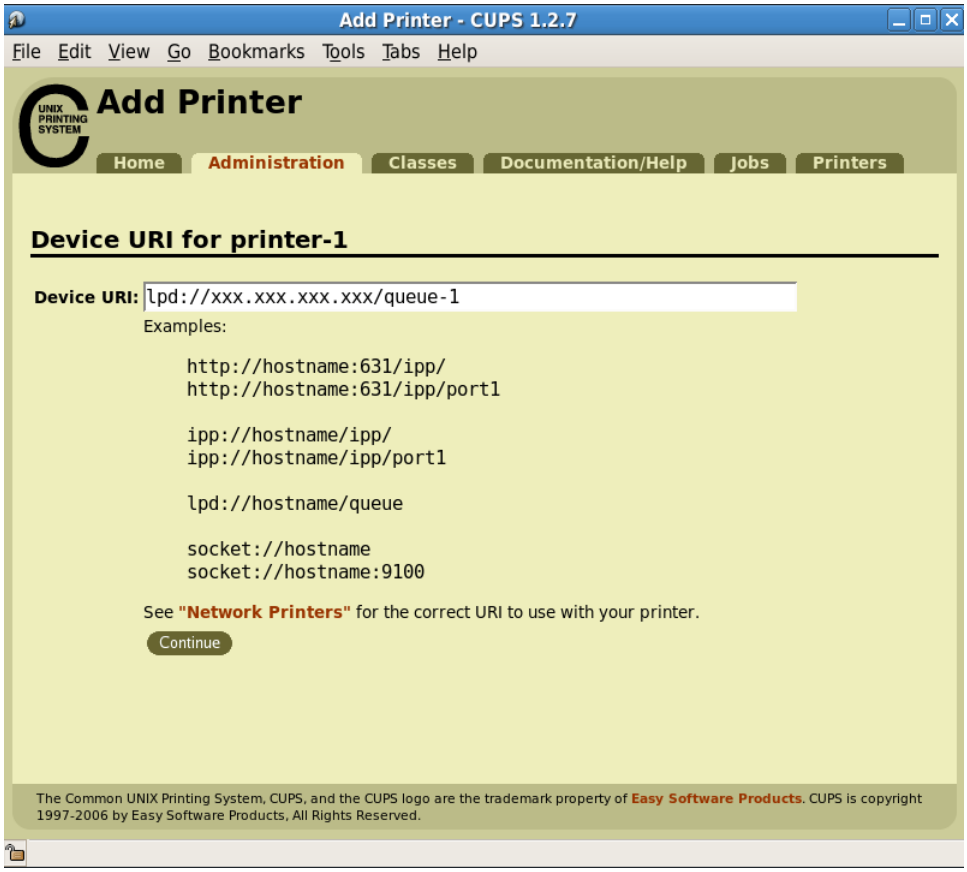


■For the LPR connection

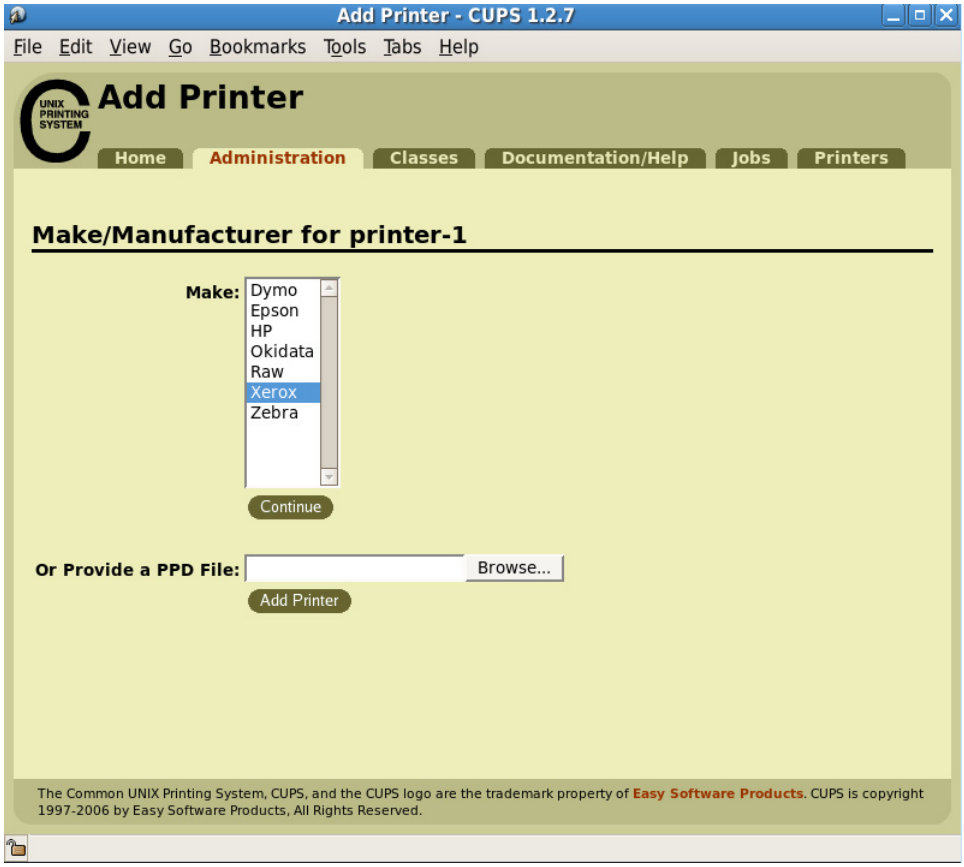
1. From [Device], select [LPD/LPR Host or Printer], and click [Continue].



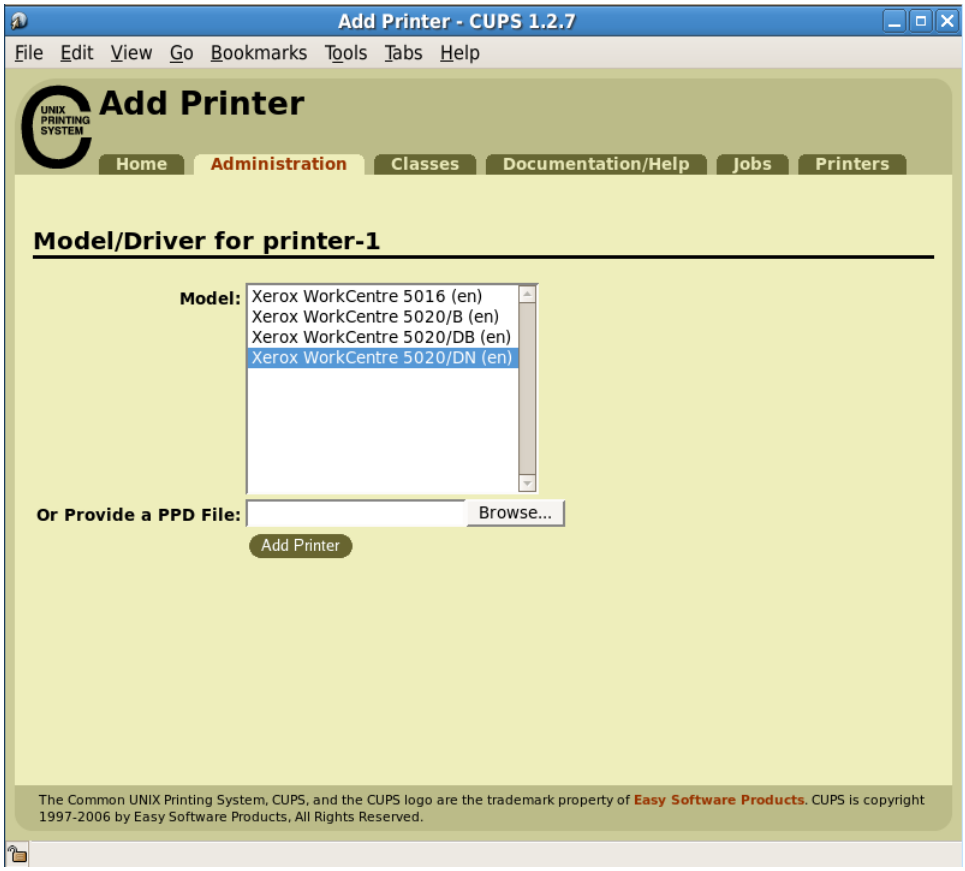
2. Enter "lpd:///(printer IP address) / (queue name)" at [Device URI], and click [Continue].



6. Select [Xerox] from [Make], and click [Continue].



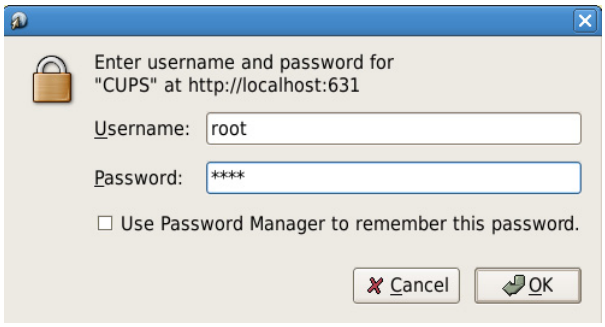
7. Select the driver to be used from [Model], and click [Add Printer].



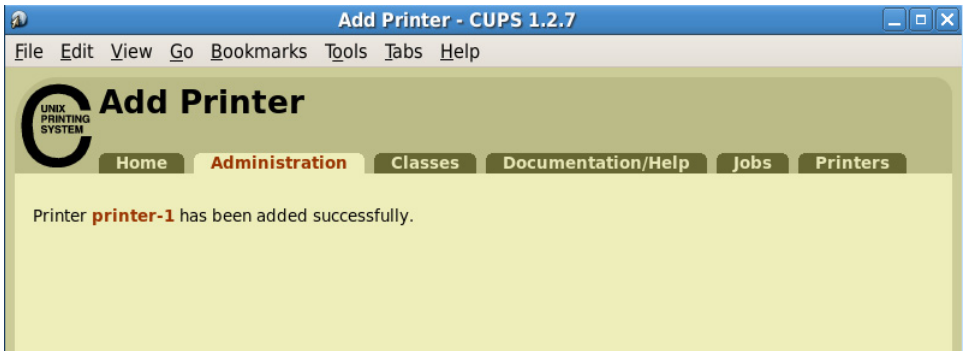
8. When requested, enter the user name (root) and password for administrator.

NOTE

- When using Ubuntu, enter the user name and password of a user who has privileges to perform the administrative tasks.



9. Confirm that the message “Printer xxx (where “xxx” is a printer name) has been added successfully.” is displayed.



The print queue is created.

NOTE

- After the print queue is successfully created, the screen switches to the [Set Print Options] screen in a while. Refer to "Setting the Printer Options (p.16)" to set print options as necessary.

3. Uninstalling the Print Driver

Follow the procedure below to uninstall the print driver.

1. Delete the print queue.
2. Delete the print driver package.

Deleting the Print Queue

Before uninstalling the print driver, delete the unnecessary print queues.

NOTE

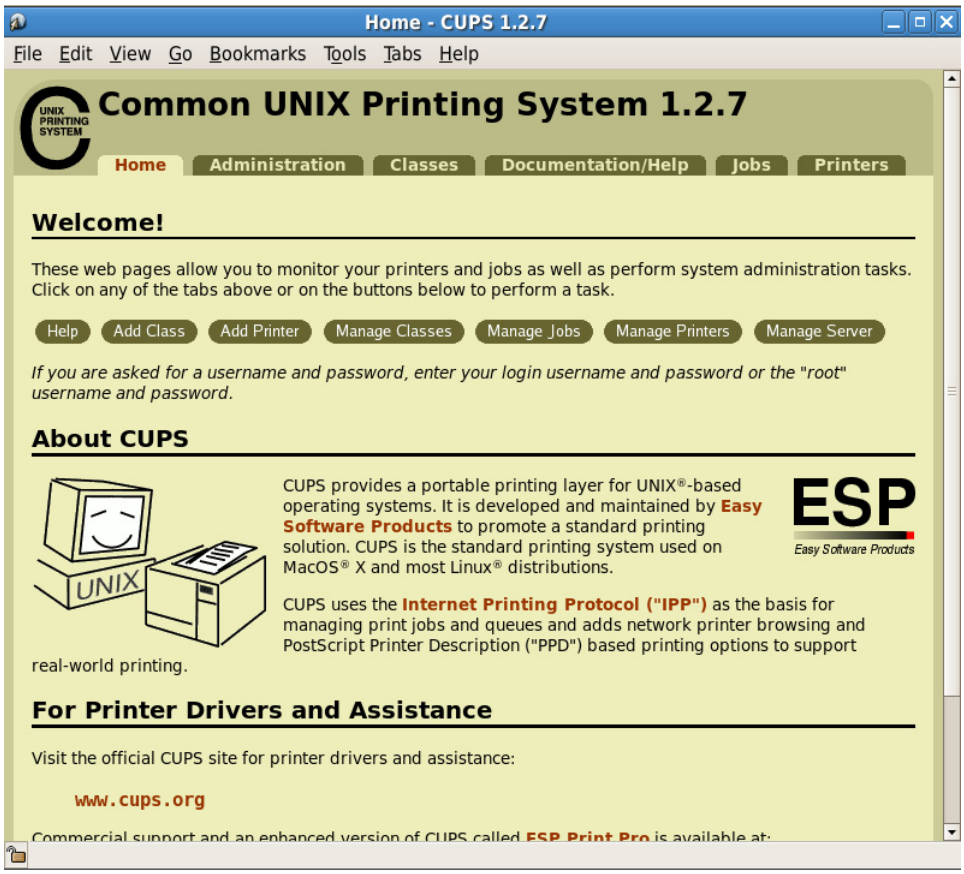
- The following procedure explains how to delete a print queue from the CUPS web management site (http://localhost:631/) using a web browser.

1. Activate a web browser, and enter the following URL at the address column to access the CUPS web management site.

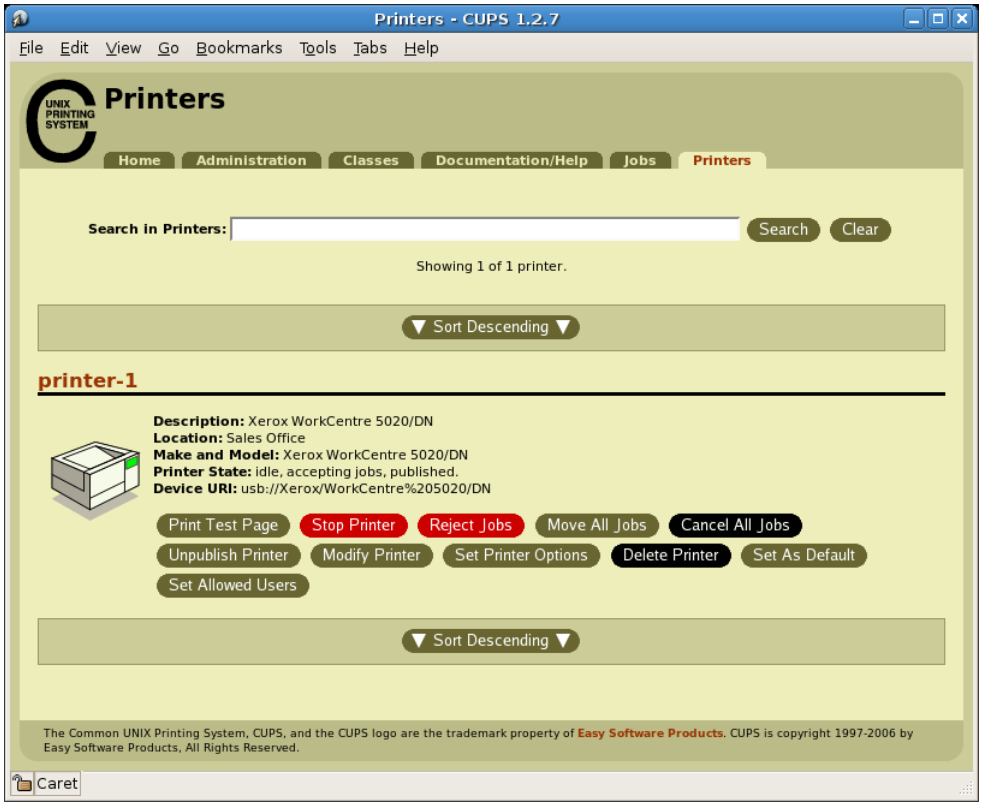
```
http://localhost:631/
```

The CUPS web management site is displayed.

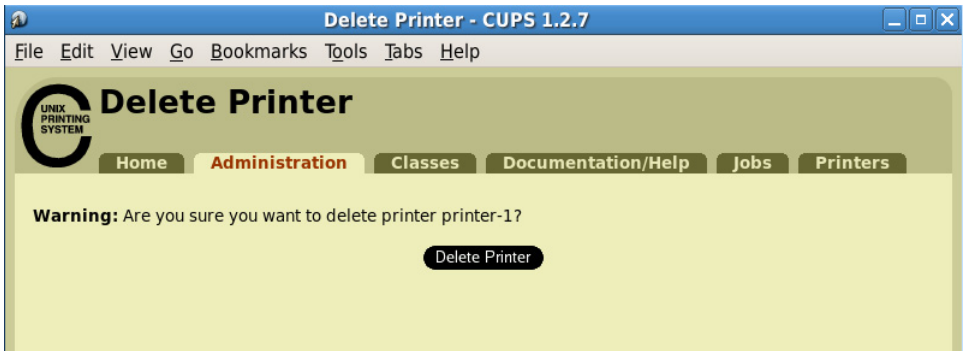
2. Click [Manage Printers].



3. Click [Delete Printer] for the printer (print queue) to be deleted.



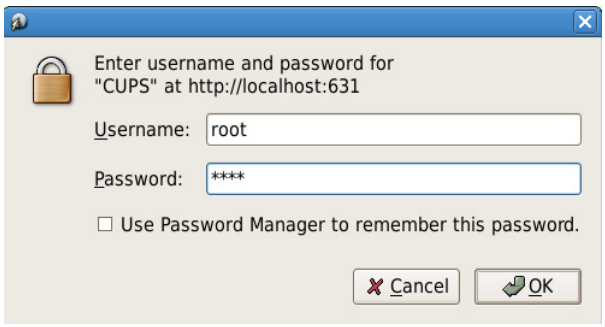
4. When a confirmation message is displayed, click [Delete Printer].



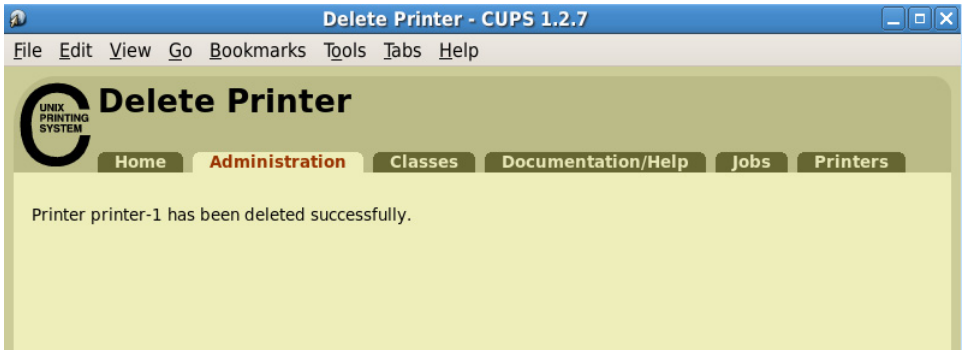
5. When requested, enter the user name (root) and password for administrator.

NOTE

- When using Ubuntu, enter the user name and password of a user who has privileges to perform the administrative tasks.



6. Confirm that the message “Printer xxx (where “xxx” is a printer name) has been deleted successfully.” is displayed.



The print queue is deleted.
Next, proceed to "Uninstalling the Print Driver (p.15)".

Uninstalling the Print Driver

■When using the RPM package

Specify the RPM package from the command line of the terminal software to uninstall.

1. Activate the terminal and log in as a super user.

   NOTE
   - The activation method of the terminal varies with the distribution. Refer to the manual of each distribution.

2. To uninstall the print driver, enter the following command (where “x.x.x-x” is the installer version).

   ```
   # rpm -e xrworkcentre5020dn-x.x.x-x
   ```

   The print driver is uninstalled.

■When using the deb package

1. Activate the terminal.

   NOTE
   - The activation method of the terminal varies with the distribution. Refer to the manual of each distribution.

2. To uninstall the print driver, enter the following command.

   ```
   $ sudo dpkg -P xrworkcentre5020dn
   ```

   NOTE
   - When using Debian, you can also uninstall the print driver without using the sudo command. However, you must log in as a super user (root) in the terminal window when uninstalling the print driver without using the sudo command.

3. If you are prompted to enter a password, enter the password of a user who has privileges to perform the administrative tasks.

   ```
   Password:password
   ```

   The print driver is uninstalled.

4. Setting the Printer Options

You can set up printer options of the created printer (print queue) in the [Set Printer Options] screen of the CUPS web management site. You can set up printer options for each printer (print queue).

NOTE

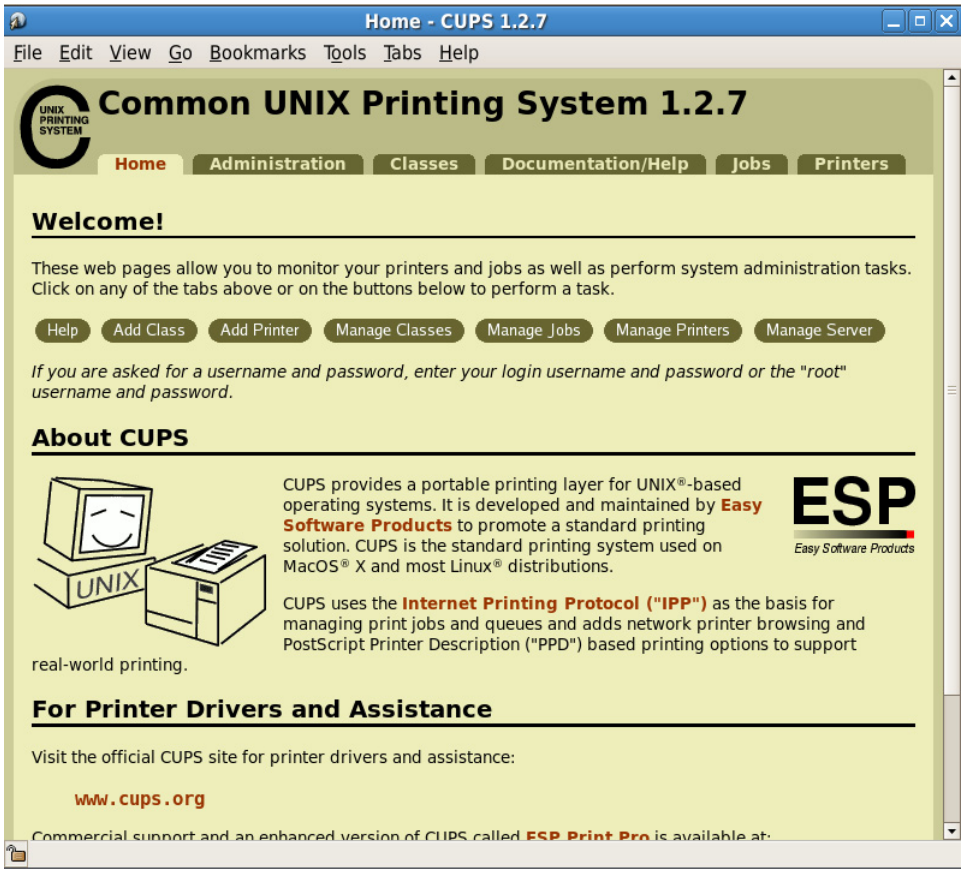
- Some items cannot be set using the [Set Printer Options] screen. For those items, use the printer setup dialog box of the application in use. For information on how to operate the printer setup dialog box, refer to the manual that is supplied with the application in use.

1. Activate a web browser, and enter the following URL at the address column to access the CUPS web management site.

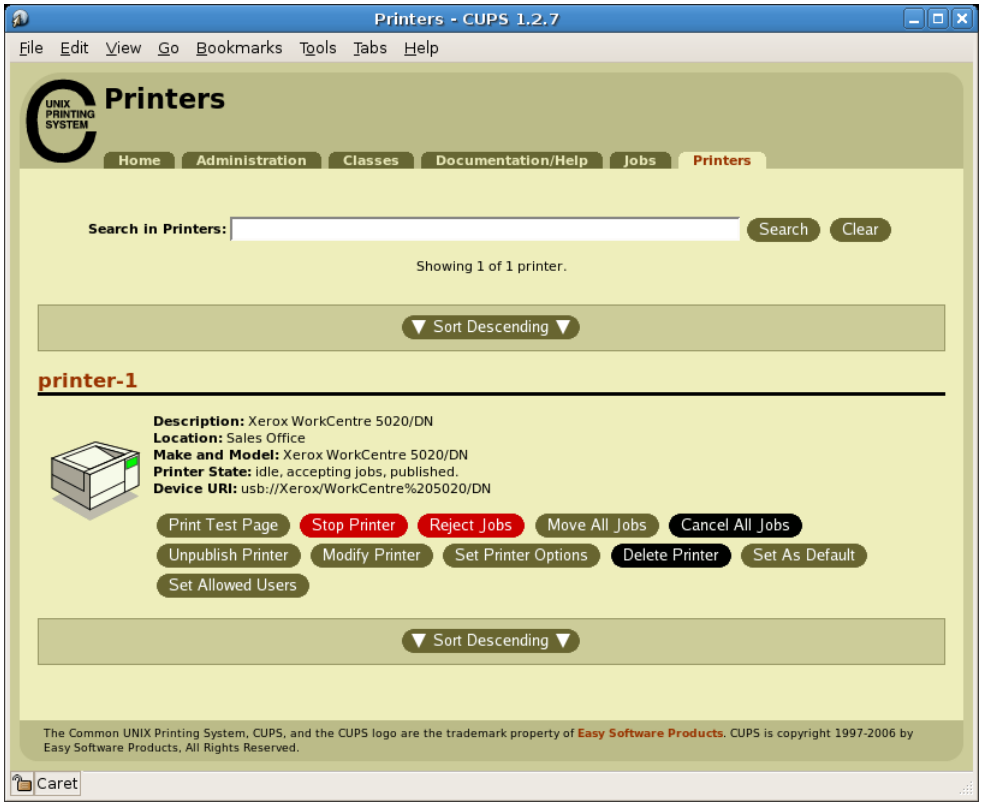
```
http://localhost:631/
```

The CUPS web management site is displayed.

2. Click [Manage Printers].



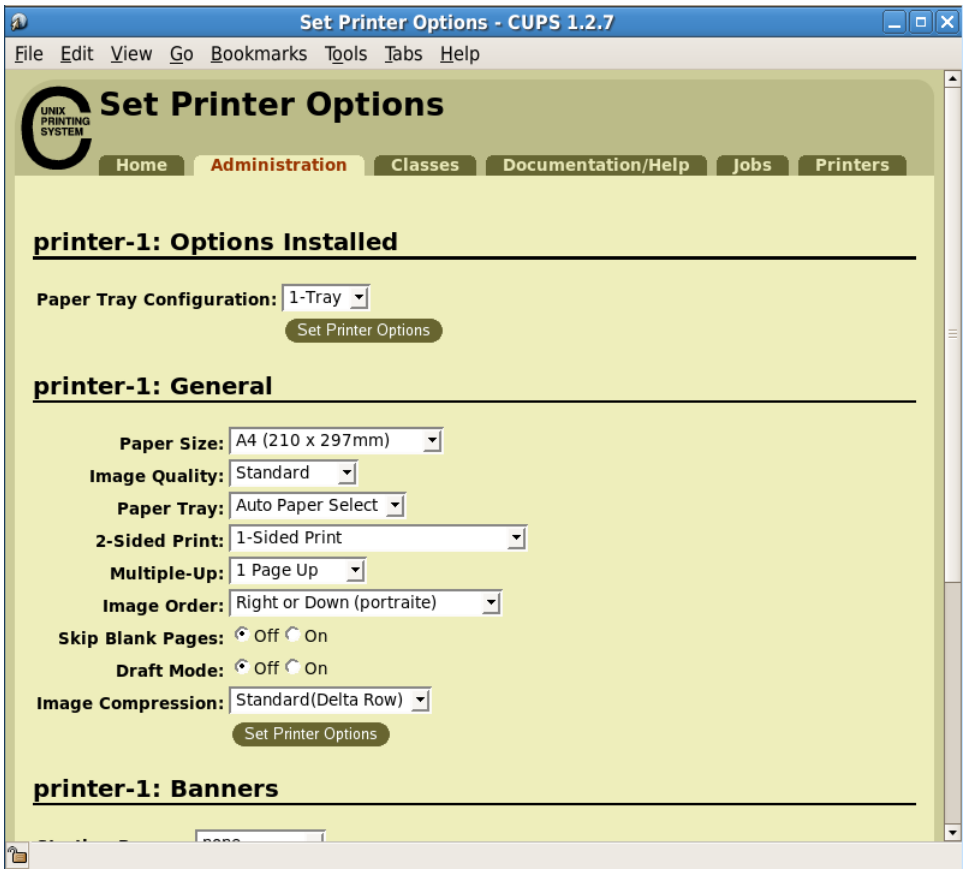
3. Click [Set Printer Options] for the printer (print queue) that you want to set up.



4. Set up each item in the [Set Printer Options] screen.

REFERENCE

- For information on each item, refer to "List of Printer Options (p.19)".

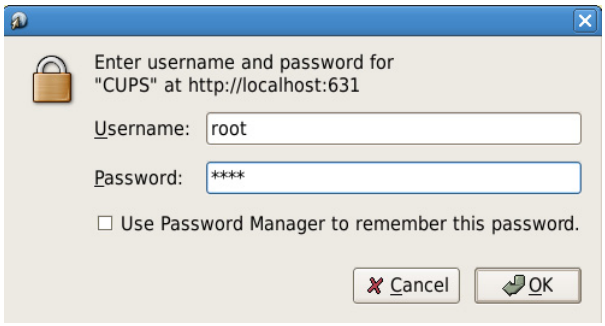


5. Click [Set Printer Options].

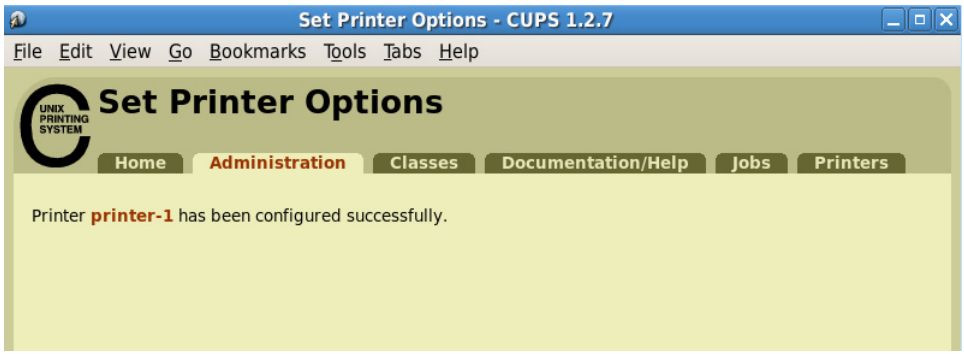
6. When requested, enter the user name (root) and password for administrator.

NOTE

- When using Ubuntu, enter the user name and password of a user who has privileges to perform the administrative tasks.



7. Confirm that the message “Printer xxx (where “xxx” is a printer name) has been configured successfully.” is displayed.



5. List of Printer Options

The items that can be configured in the [Set Printer Options] screen of the CUPS web management site are as follows.

Displayed Item	Remarks
Paper Tray Configuration	Specifies whether or not to enable the optional tray. Select [1-Tray] to disable the optional tray. Select [2-Tray] to enable the optional tray.
Paper Size	Specifies the size of the paper to be output. Select [Auto] to use the standard size paper closest to the document size. Printing will not be executed if a paper size unsupported by your printer is selected.
Image Quality	Specifies the quality and speed of printing. Select [Standard] to print in normal quality and speed. Select [High Speed] to print in faster speed but lower quality.
Paper Tray	Selects the paper tray for feeding paper. Select [Auto Paper Select] to automatically select the paper tray set with the paper size specified at [Paper Size]. Printing will not be executed if a paper tray unsupported by your printer is selected. When this item is set to [Auto Paper Select], if you select [Statement] or [A5] for [Paper Size], the Bypass Tray is selected automatically.
2-Sided Print	Specifies 2-sided printing. Select [2-Sided Print] to print images on both sides of the paper orientated in the same direction when the paper is flipped with the short edge as the axis. Select [2-Sided Print, Flip on long edge] to print images on both sides of the paper orientated in the same direction when the paper is flipped with the long edge as the axis.
Multiple-Up	Specifies whether or not to use the “Multiple-Up” feature, which allows you to print multiple consecutive pages of a document onto one side of paper. Select the number of pages for the Multiple-Up feature from [2 Pages Up], [4 Pages Up], [8 Pages Up], and [16 Pages Up]. The area on the paper is divided equally to print the specified number of pages, and all pages are automatically rotated and reduced to fit onto one side of paper.
Image Order	Specifies the page order to print when using the Multiple-Up feature, which allows you to select how you want to arrange pages onto one side of paper.
Skip Blank Pages	Specifies whether to skip blank pages when printing documents that consist of blank pages. Select [On] not to print blank pages when printing. Select [Off] to print blank pages when printing.
Draft Mode	Specifies whether or not to reduce the amount of toner used when printing drafts. When [On] is selected, the overall printed color becomes lighter. This is best for printing documents when high print quality is not necessary.
Image Compression	Specifies whether or not to compress the image data contained in the print data, in order to reduce the size of a job. Select [Standard(Delta Row)] for line drawings and images with fewer colors. Select [Photo(JPEG)] for photos and colorful images.

6. List of Error Messages

If print data is not sent to the printer for some reasons, use the [Manage Printers] screen of the CUPS web management site to check the message displayed in [Printer State] of the printer. The following are some examples of the error messages displayed at the computer. The displayed error message may differ depending on the distribution used.

REFERENCE

- For details on the messages displayed on the printer control panel, refer to the manual that is supplied with the printer.

Message (Example)	Connection	Status / Cause / Solution
"Attempting to connect to host xxx.xxx.xxx.xxx for printer ***" (where xxx.xxx.xxx.xxx is the IP address and *** the printer queue) Following this, either one of the following messages will be displayed: "Unable to connect to printer; will retry in 30 seconds... : Connection time out" or "Network host xxx.xxx.xxx.xxx is busy, down, or unreachable; will retry in 30 seconds..."	LPR	The printer may be switched off, or may not be connected correctly. Or the printer may be switched off or disconnected before the print data transmission from the computer to the printer is completed successfully. Check that the printer is switched on and that an interface cable is correctly connected between the computer and the printer. This message will also be displayed when the data cannot be received at the printer due to some other reasons. Check whether any error message is displayed at the printer control panel.
"Unable to open USB device*** : No such device" (where *** is the URI of the USB device)	USB	
"Spooling LPR job, xx% complete..." (where xx is the value displaying the progress status)	LPR	For LPR connection, either the device is switched off or is disconnected when the print instruction has been sent from the computer and the data is being sent. Switch on the device.

7. Bug Report

The following bugs were found during the testing phase. Xerox doesn't guarantee there are no other bugs in addition to the one indicated.

- Restriction on OpenOffice

When using version 1.1.x of OpenOffice.org, printing may not be correctly executed. Upgrade to version 2.x.x of OpenOffice.

- Restriction on Application Software
  - When printing from Evince (a document viewer), KPDF (a PDF viewer), or KGhostview (a PDF viewer), the printed image may be clipped or may be reduced to a smaller size.
  - Depending on the version of Evince (a document viewer), KPDF (a PDF viewer), KGhostview (a PDF viewer), the image may be printed with collation that is completely opposite from what you specified for the collate setting, or image may be printed without collation.

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