

# **Xlpd** User Guide

The Powerful LPD Server for Windows

*NetSarang Computer Inc.*

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## Xlpd™ Manual

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# Contents

<b>About Xlpd</b> .....	<b>2</b>
Key Functions .....	3
LPD Protocol .....	4
Recommendations .....	4
Install and Uninstall.....	4
<b>Start</b> .....	<b>5</b>
Start Xlpd.....	5
Close and Open Xlpd Main Window.....	5
Queue Management .....	5
Print from Remote Host.....	6
End Xlpd and Stop Windows Service.....	6
<b>Remote Printer Setup</b> .....	<b>7</b>
General Setup.....	7
Solaris Printer Setup.....	7
HP UX Printer Setting.....	8
AIX Printer Setup .....	9
IRIX Printer Setup .....	10
SCO UNIX Printer Setup.....	11
RedHat Linux Printer Setup .....	11
Fedora Printer Setup.....	15
CentOS Printer Setup.....	17
Ubuntu Printer Setup .....	17
SuSE Linux Printer Setup .....	17
Windows 2000/XP/2003/Vista/7 Printer Setup.....	21
<b>Xlpd Settings</b> .....	<b>24</b>
Change LPD Port .....	24
Alert Window on Error.....	24
Close Button Action Settings.....	24
Run Xlpd as Windows Service .....	24
Previewing Print Job .....	25
Email Notification .....	25
<b>Print</b> .....	<b>27</b>
Change Printer .....	27
Print PS and PCL Files .....	27
Print by Formatting Text File .....	27
Print File Directly in Application Program.....	28
Manage Print Jobs .....	29
<b>Log Management</b> .....	<b>30</b>

# About Xlpd

**Xlpd** is a remote printer server program that enables printing of remote files with a PC printer in a network environment configured via Internet or LAN. Several computers in a network can share a single printer connected to a server via a printer server program .

**Xlpd** eliminates the complicated process of having to download files from a remote UNIX/Linux system to a PC to print them. When you are connected to a remote UNIX/Linux system with **Xmanager** or **Xshell**, and want to print some data in the remote system, just enter the print command on the terminal prompt.

# Key Functions

## Supports LPD Protocol (RFC 1179)

LPD protocol defined in RFC 1179 uses TCP port No. 515. For details, see 'LPD Protocol'.

## Windows Service Mode

**Xlpd** can run as a Windows service or an independent program. When run as Windows service, **Xlpd** processes all printing jobs with a default queue without the user log in through their individual accounts. It is also convenient because service automatically starts when Windows starts. In this case, run or exit actions in the main **Xlpd** window do not affect **Xlpd** service execution and ending.

## Supports Multi-queue

Since multi-queue is supported, different printers can be used or different printing methods can be designated by queue.

## Printer Setup

A printer for file printing can be designated for each queue.

## Printing with and without formatting

For text files, **Xlpd** provides formatting concerning font, spacing and etc. For details, see 'Print by Formatting Text File'. For PS (PostScript) or PCL (Printer Command Language) files, the direct printing must be used.

## CRLF Conversion

**Xlpd** provides a function to convert CR (Carriage Return) to CRLF (Carriage Return & Line Feed) for successful printing of UNIX system text documents in a Windows environment.

## Jobs List Window to View Printing Status

The status of each process can be checked from reception of a requested printing job to actual printing.

## Print Job Processing (delete, print, store)

**Xlpd** provides functions to save or delete a print job.

## Processes LPQ/LPSTAT Command

**Xlpd** receives and processes the LPQ and LPSTAT commands requested by UNIX system.

## LPD Port Change

In addition to the general LPD port 515, other ports can be used according to user setting.

## Log Viewer to View Error and Job Processing Details

**Xlpd** provides a log viewer to view details of job processing or errors. Log viewer provides search functions by period, queue, and message type.

## Run in Windows Notification Area

**Xlpd** runs in the Windows notification area even if the main window is closed.

## LPD Protocol

The LPD (Line Printer Daemon) is the most general printing protocol used in the TCP/IP network environment. LPD uses the TCP protocol and its default port is No. 515. In a UNIX system, a user requests a print job using an lp, lpr or pr command, and the job will be sent to your PC over the network. The LPD in action receives the request and prints on a printer connected to a PC according to the options and settings.

## Recommendations

- **Processor:** Compatible with Intel®
- **Operating System:** Microsoft Windows® 2000 Service Pack 4 or higher
- **Storage Space:** Reserve space of 100MB or more
- **Network:** TCP/IP network
- **Program:** Internet Explorer® 6.0 or higher

## Install and Uninstall

The **Xlpd** install program can be downloaded from <http://www.netsarang.com/>.

The install program was generated using InstallShield®, and various options can be changed during installation. It is sufficient in most cases to simply click [Next]. To uninstall **Xlpd**, use standard Windows add/remove features. Run [Add/Remove Program] and select in the control panel to uninstall **Xlpd** or **Xmanager Enterprise** from the list. Note that when **Xmanager Enterprise** is uninstalled, programs other than **Xlpd** are also removed.

Even when the program is uninstalled, the registry information, log files and user generated data files are not removed. Such information and files are available for reuse when the program is reinstalled. Delete all the registry information and files from the following location:

### Registry Information:

- \HKEY\_CURRENT\_USER\Software\NetSarang\Xlpd
- \HKEY\_CURRENT\_USER\Software\NetSarang\Xmanager Enterprise

### File and Folder:

- %PROGRAMDATA%\NetSarang\Xlpd\4

# Start

This section provides descriptions on starting **Xlpd**, queue management, printer setup, file printing and closing **Xlpd**.

## Start Xlpd

**Xlpd** can be divided into Xlpd service, which receives and processes print jobs and **Xlpd** main window, capable of handling print jobs and queues. Depending on user choice, service can be run as Windows service or as independent program.

### 1. Run **Xlpd**.

When **Xlpd** is executed, the main **Xlpd** window opens and, if in independent mode, **Xlpd** service starts at the same time.

#### **Note**

When **Xlpd** is run for the first time, the default Windows printer is used as the printer for the default queue. If a default printer does not exist, a printer must be registered. If another program is already operating with TCP 515, a message indicating that the port is being used by another program is displayed.

## Close and Open Xlpd Main Window

### To Close the Xlpd Main Window

1. Select [Exit] in the [File] menu. A notification area icon is generated when [Close Button Action] is set as [Minimize to the notification area] in the **Options** dialog box.

### To Open the Xlpd Main Window

1. Point to the **Xlpd** icon in the notification area.
2. Right-click on the icon and select [Open].

### To Avoid Minimizing to the Notification Area

1. Select [Options] in the [Tools] menu.
2. Set [Close Button Action] as [Exit Xlpd].
3. Click [OK] to save change.

## Queue Management

**Xlpd** supports multi-queue. Each queue uses different printing methods or can be assigned to different printers.

### To Add a New Queue

1. Click the [File] menu.
2. Select [New Queue].
3. When the **Add a new queue** dialog box is displayed, enter a name for the new queue.
4. Adjust the necessary options in the dialog box.
5. Click [OK].

 **Note**

If [Use Default queue for unknown queue request] is not set in the **Options** dialog box, a new queue is automatically added when a printing request is made to a queue that is not registered to **Xlpd**.

**To Delete a Queue**

1. Select the queue which is to be deleted from the list of queues.
2. Select [Delete Queue] from the [File] menu.

 **Note**

A queue set as the default queue cannot be deleted.

**To Change Queue Properties**

1. Select the queue whose properties needs to be changed, from the list of queues.
2. Select [Properties] from the [Queue] menu.
3. Adjust the necessary options in the **Queue Properties** dialog box.

## Print from Remote Host

Set a remote printer by referring to 'Remote Printer Setup'.

After printer setup, the remote host makes a printing command as follows, in order to print a text file 'test.txt':

```
$ lpr -Pserver test.txt
```

Or

```
$ lpr -dserver test.txt
```

 **Note**

Printing command varies slightly by host type. See printer setup and printer commands by host in 'Remote Printer Setup'.

## End Xlpd and Stop Windows Service

- Select [Exit] from the [File] menu.
- If an option has been set to minimize the notification area, right-click on the **Xlpd** notification area icon and select [Exit].
- If **Xlpd** is run in Windows service mode, open Services from the Administrative Tools section in Control Panel. And then, find the **Xlpd** Service and click on Stop Service in the toolbar.



# Remote Printer Setup

It is difficult for a general user to set a remote printer; nigh impossible at times due to issues relating to UNIX/Linux system permission. In this case, you need to consult with your system administrator to set up a printer on the remote host.

See the NetSarang Inc. website for UNIX/Linux descriptions which are not available in this manual.

## General Setup

The general remote printer registration settings are as outlined below.

### Register IP Address of a PC, Printer Server

Add the IP address and host name of the PC where **Xlpd** is installed, to the `/etc/hosts` file of the UNIX host:

```
192.168.1.119  lpd_pc_name
```

# A space is required between the IP address and host name.

### Remote Printer Setup Terminologies

- **Printer Name**  
The name of a printer to be registered in UNIX. A file is sent for printing under this name. In some UNIX systems, this printer name becomes the queue name if there is no separate option to set a queue name.
- **Printer Server**  
Refers to the host name or IP address of the PC where **Xlpd** is installed. Some systems only require a host name.
- **Queue Name**  
A **Xlpd** (Printer Server) queue name is designated. **Xlpd** carries out printing tasks by receiving queue names from the client. The queue names must match in order to print files with the queues registered in **Xlpd**.

### General Printer Registration Guidelines

- Select [Berkeley] or [BSD] in print type. **Xlpd** supports LPD protocol and this is generally referred to as Berkeley remote printing protocol.
- In Berkeley UNIX system, refer to the `printcap` manual page to register a printer:  
`$ man printcap`
- To print files, the `lpr` command can be run as follows. In addition, the print menu can be used in some document editors. For `lpr` command options, see the manual page.  
`$ lpr -PPrinter_name filename`  
or  
`$ lpr -dPrinter_name filename`

## Solaris Printer Setup

Run `admintool` in console and register a remote printer in the following order.

### Solaris 2.6, Solaris 8, Solaris 9, Solaris 10

1. Run `/usr/bin/admintool` with root permissions.
2. Click [Browse] -> [Printers] in menu.

3. Click [Add] -> [Access to Printer] in the [Edit] menu.
4. Enter information as follows in the printer setup screen:

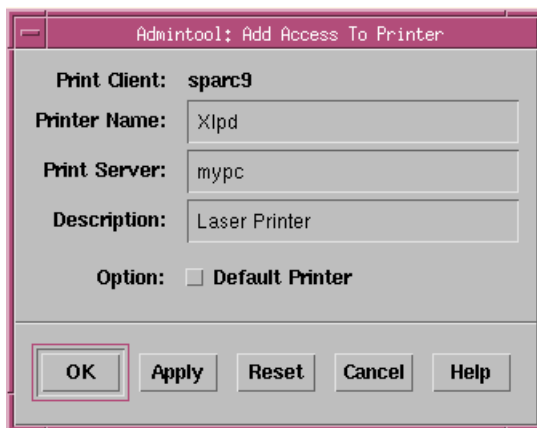


Fig. 1: Solaris printer setup

- **Printer Name:** Name designated when printing a file with the lpr command. To print a file under a queue name registered in **Xlpd**, the queue name must be the same as that of **Xlpd**. If the queue name is not registered in **Xlpd**, print a file with the default queue according to **Xlpd** settings or by generating a new queue.
- **Print Server:** Enter the host name of a PC with **Xlpd** installed. As described in 'General Setup', the host name must be registered in the /etc/hosts file.
- **Description:** Enter remote printer information, such as printer model. This item is not used at the printing command.
- **Option – Default Printer:** When this item is checked, the printer registered becomes a default printer, designated as a default at the printing command. When the printer is omitted from the command, the file is printed by the default printer.

5. Click [OK] to exit admintool.
6. The command to print a file in Solaris is as follows:  
\$ /usr/ucb/lpr -PPrinter\_name filename

## HP UX Printer Setting

Set printer by running sam after login to root.

1. With root permissions, run /usr/bin/sam or /usr/sbin/sam.
2. Run by double clicking [Printers and Plotters] -> [LPSpooler] -> [Printers/Plotters] in order.
3. Click [Actions] -> [Add remote Printer/Plotter...] in the menu.
4. Enter the following in the printer setup screen:

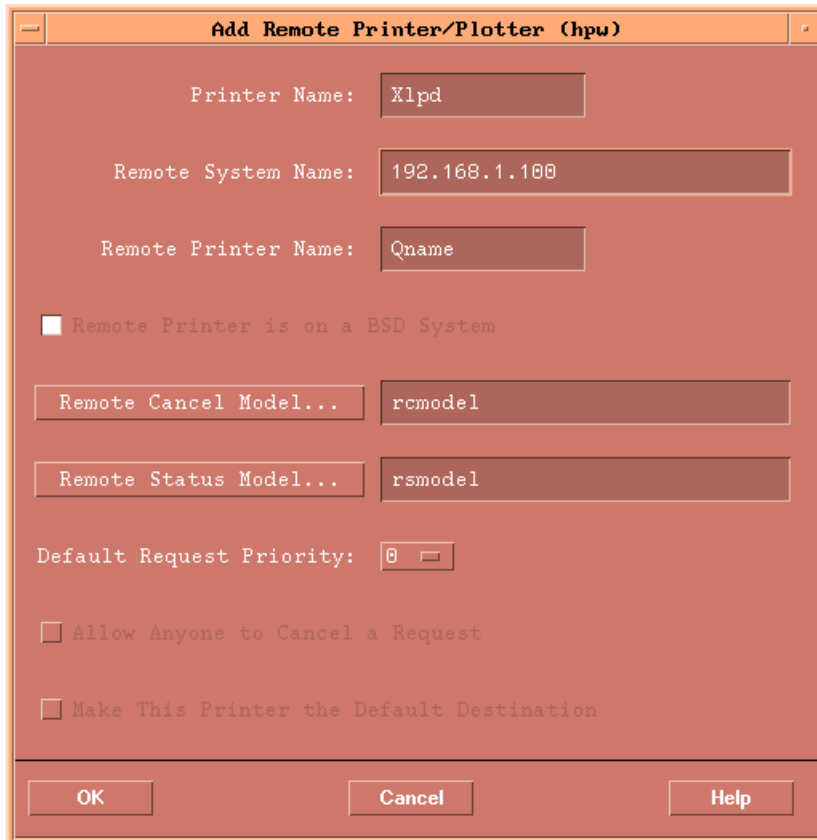


Fig. 2: HP printer setup

- **Printer Name:** Enter the name of a printer to be designated for printing.
  - **Remote System Name:** Enter the name or IP address of a PC with **Xlpd** installed. In some cases, the program may not be installed with the IP address. In such case, enter the PC name after registering the name in `/etc/hosts` file as described in 'General Setup'.
  - **Remote Printer Name:** Enter the queue name registered in **Xlpd**. If the queue name is not registered in **Xlpd**, print a file with the default queue according to the **Xlpd** settings or by generating a new queue.
  - **Remote Printer is on a BSD system:** This item must be checked.
  - Leave the rest as defaults.
5. Click [OK] to end sam.
  6. The command to print a file in HP UX 10.x is as follows:  
`$ /usr/bin/lpr -dPrinter_name filename`

## AIX Printer Setup

### AIX 4.x, AIX 5.x

1. Run `/usr/bin/smit` with root permissions.
2. Click [Print Spooling] -> [AIX Print Spooling] -> [Add a Print Queue] -> [remote: Remote Printer Attached to Remote Host] -> [Standard Processing] in order.
3. Enter the following in the printer setup screen:

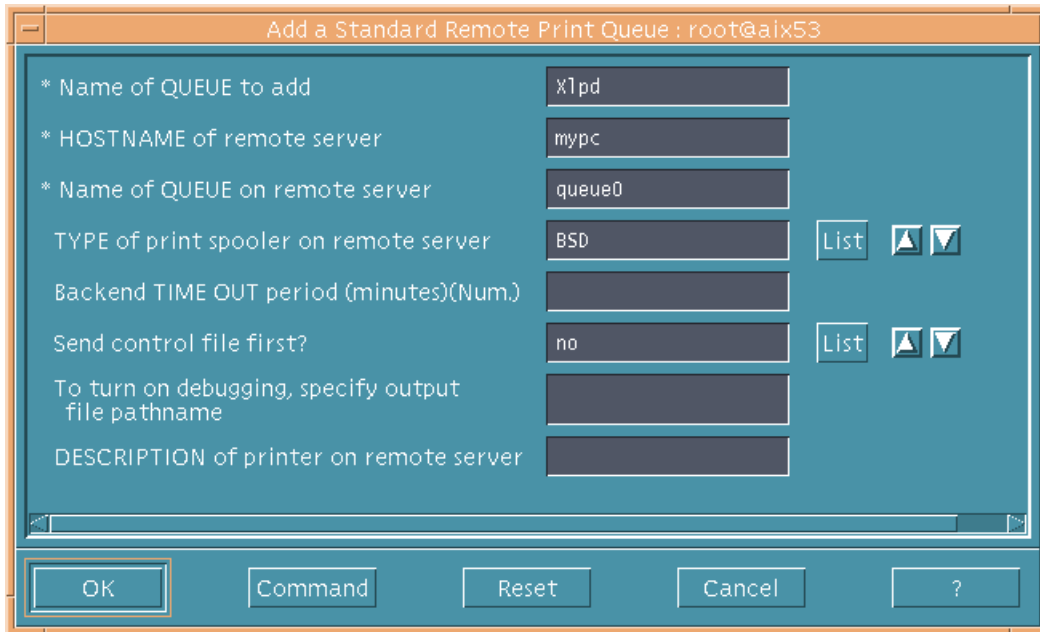


Fig. 3: AIX printer setup

- **Name of QUEUE to add:** The name of the printer designated for printing.
  - **HOSTNAME of remote server:** Enter the IP address name of a PC with **Xlpd** installed. In some cases, the program may not be installed with an IP address. In such case, enter the PC name after registering it in the `/etc/hosts` file as described in 'General Setup'.
  - **Name of QUEUE on remote server:** Enter the queue name used in **Xlpd**. If the queue name is not registered in **Xlpd**, print a file with the default queue according to the **Xlpd** settings or by generating a new queue.
  - **TYPE of print spooler on remote server:** Be sure to select BSD.
  - **Backend TIME OUT period(minutes)(Num.):** Use default value.
  - **Send control file first?:** Use default value.
  - **To turn on debugging, specify output file pathname:** Use default value.
  - **DESCRIPTION of printer on remote server:** Enter remote printer information, such as printer model. This item is not used for the printing command.
4. Click [OK] to end smit.
  5. The file print command in AIX 4.x or AIX 5.x is as follows:  
`$/usr/bin/lpr -PPrinter_name filename`
  6. If the error message "unable to run qdaemon" is shown during setup, run the following command as root user.:  
`# /usr/sbin/qdaemon&`

## IRIX Printer Setup

1. Run toolchest with root permissions.
2. Click [Printer Manager] in system menu.
3. Double click [Add].
4. Enter [Printer name].
5. Select [Network for remote printers].
6. Enter name or IP address of a PC with **Xlpd** installed in [Remote Host Name].

7. Click [OK].

## SCO UNIX Printer Setup

1. Run scoadmin with root permissions.
2. Click [Printers].
3. Click [Printer Manager].
4. Click [Printer/Add Remote/UNIX].
5. Enter PC host name and printer name.
6. Be certain not to select [Use extended remote printing protocol].
7. Click [OK].

## RedHat Linux Printer Setup

### RedHat Enterprise Linux 4.x, 5.x

1. Run /usr/sbin/system-config-printer with root permissions. For remote execution, run in a PC X server, such as **Xmanager**.
2. Click [Add a new printer] to proceed with installation according to the screen instructions.

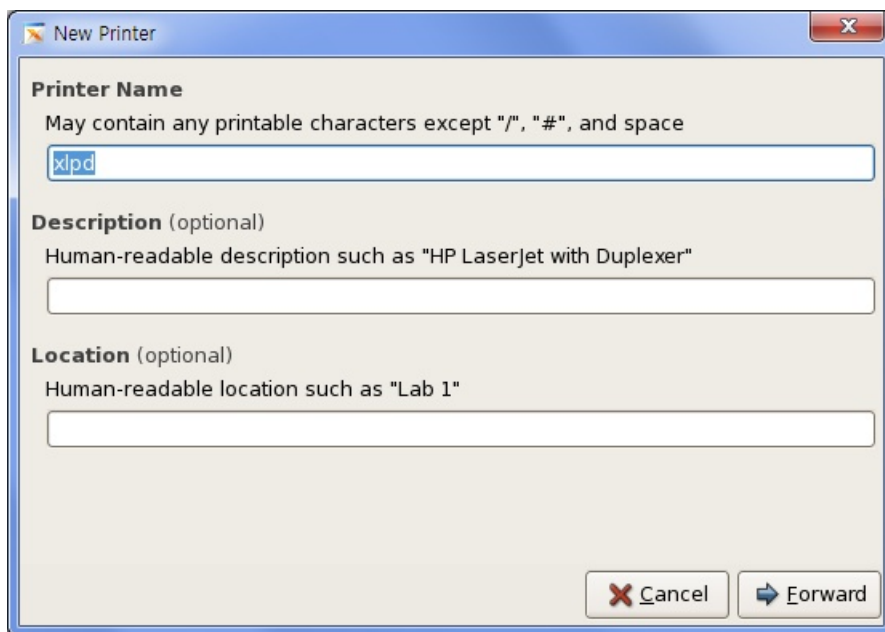


Fig. 4: RedHat Enterprise Linux printer setup 1

- **Printer Name:** Name designated when printing a file with the lpr command or in a Linux application program.
- **Description (optional):** Enter remote printer information, such as printer model. This item is not used at the printing command.
- **Location (optional):** Enter remote printer location. This item is not used at the printing command.

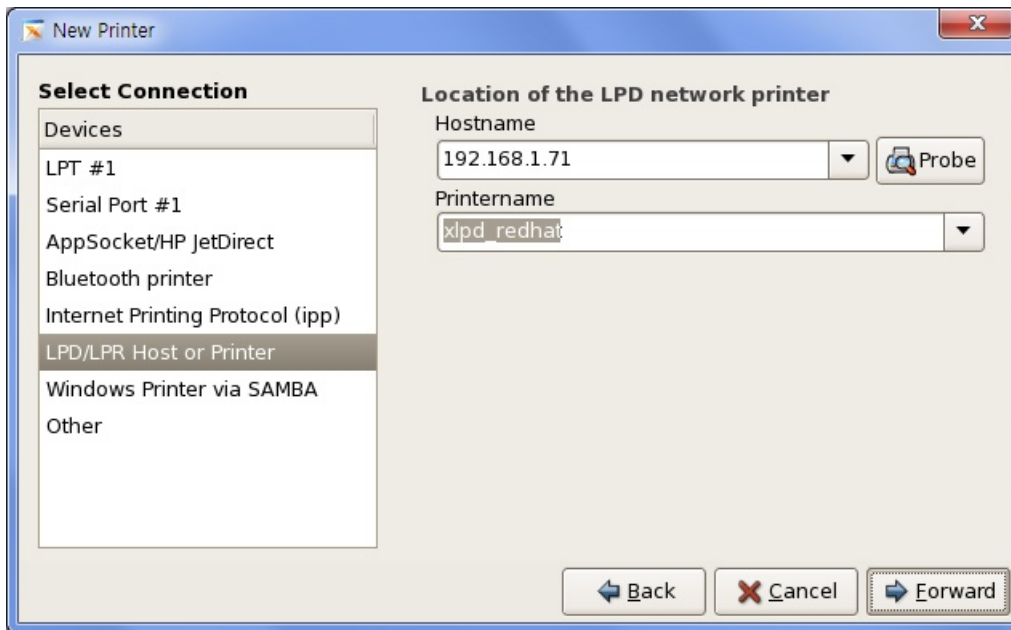


Fig. 5: RedHat Enterprise Linux printer setup 2

- **Devices:** Select [LPD/LPR Host or Printer].
- **Hostname:** Enter the name or IP address of a PC with **Xlpd** installed.
- **Prinтерname:** **Xlpd** queue name. **Xlpd** generates a queue using this name. Printing can be processed with the default queue without generating a queue according to **Xlpd** settings.

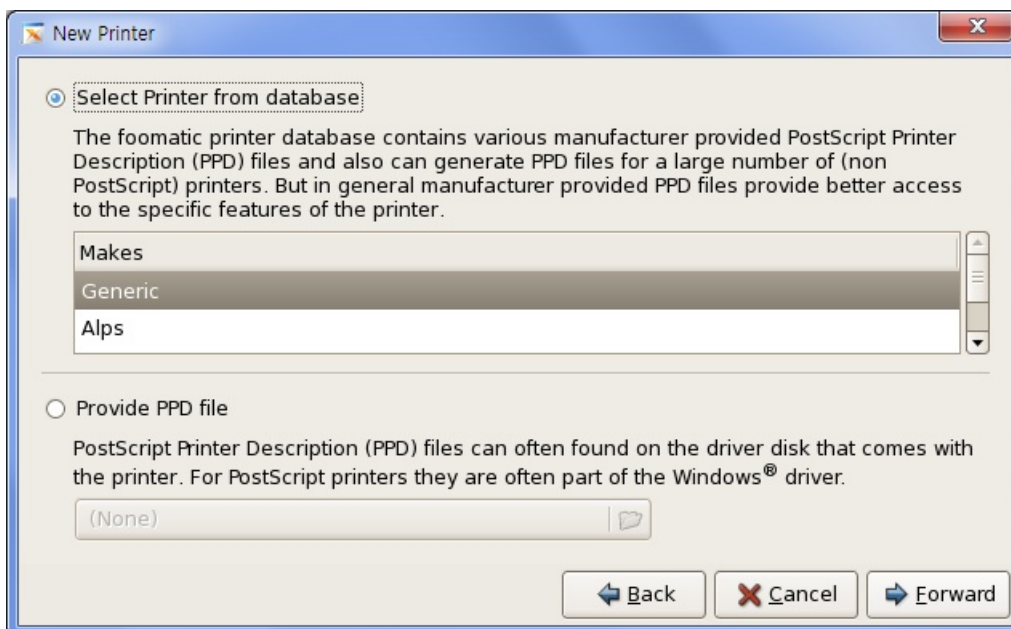


Fig. 6: RedHat Enterprise Linux printer setup 3

- **Select Printer from database:** Select **Xlpd** connected printer model. If model does not exist, select a printer compatible with the printer concerned. Initially, UNIX/Linux application program supported PostScript only. Recently however, PCL printer language

has also been supported. Check compatibility of model to use and select compatible printer in the Generic printer section.

3. Click [Apply] to complete printer registration.
4. The command to print a file in RedHat Enterprise Linux is as follows:  
\$ /usr/bin/lpr -Pprinter\_name filename  
ex) \$ /usr/bin/lpr -Pxlpd /etc/hosts

#### RedHat Linux 9.x, Redhat Enterprise Linux 3.x

1. Run /usr/sbin/printtool or /usr/bin/redhat-config-printer with root permissions.
2. Click [Add (a new printer)] and proceed with installation according to the screen instructions.

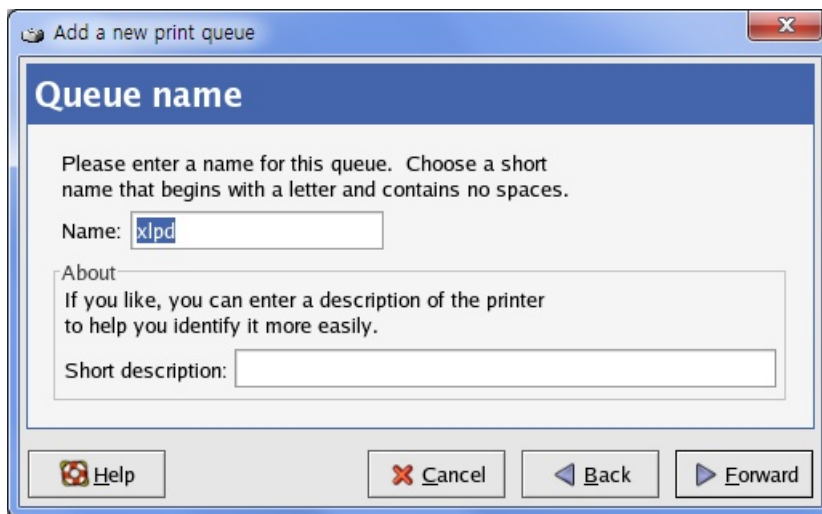


Fig. 7: RedHat Linux printer setup 1

- **Queue Name:** Printer name designated when printing a file with the lpr command or in Linux application program.
- **Short Description:** Enter information to give a brief description of the printer. This is optional.

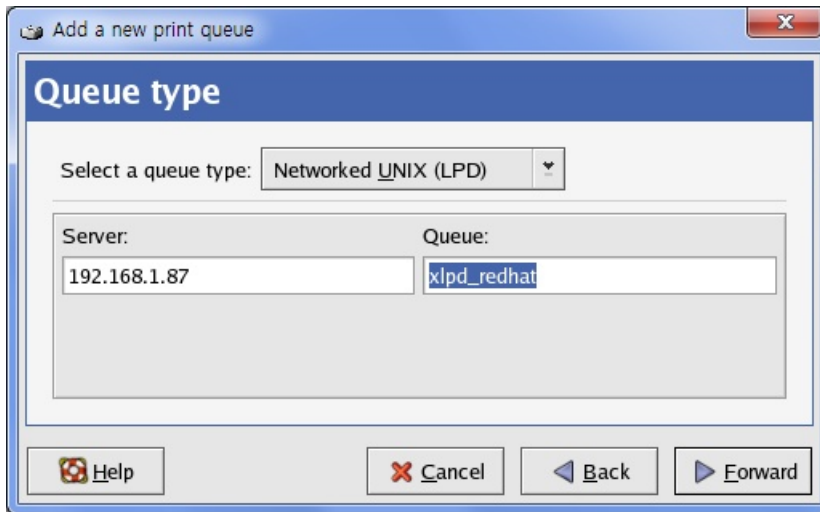


Fig. 8: RedHat Linux printer setup 2

- **Select Queue Type:** Select [Network Linked UNIX (LPD)].
- **Server:** Enter the IP address name of an **Xlpd** installed PC.
- **Queue:** This is the **Xlpd** queue name. **Xlpd** generates a queue using this name. Printing can be processed with the default queue without generating a queue according to **Xlpd** settings.

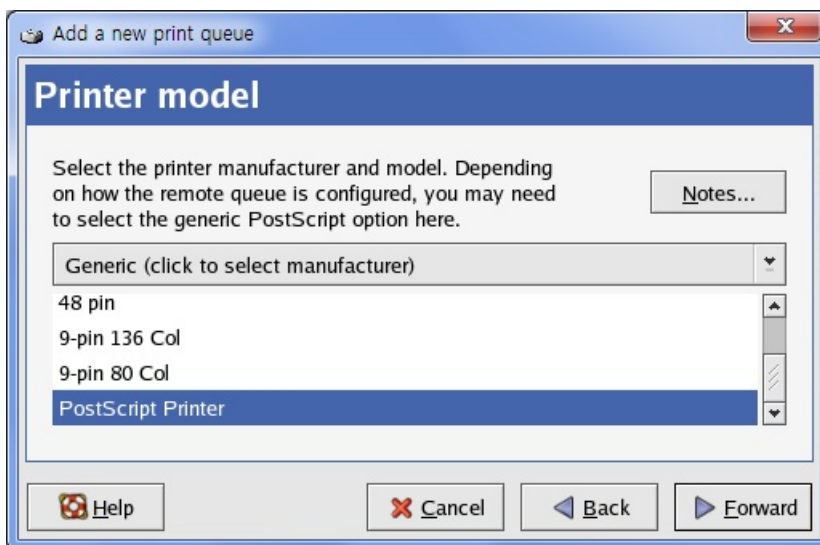


Fig. 10: RedHat Linux printer setup 3

- **Printer Model:** Select **Xlpd** connected printer model. If model does not exist, select a printer compatible with the printer concerned. Initially, UNIX/Linux application program supported PostScript only. Recently, however, PCL printer language has also been supported. Check compatibility of model to use and select compatible printer in the Generic printer section.
3. Click [Apply] to complete printer registration.



4. Command to print a file in RedHat 7.x, 8.x, 9.x is as follows:  
\$ /usr/bin/lpr -Pqueue\_name filename  
ex) \$ /usr/bin/lpr -Pxlpd /etc/hosts

## Fedora Printer Setup

### FedoraCore 1, 2, 3, 4, 5

1. Run /usr/bin/redhat-config-printer or /usr/bin/system-config-printer with root permissions. For remote execution, run in a PC X server, such as **Xmanager**.
2. For installation process, see '**RedHat Linux 9.x, Redhat Enterprise Linux 3.x.**'

### FedoraCore 6, Fedora 7

1. Run /usr/sbin/system-config-printer with root permissions. For remote execution, run in a PC X server, such as **Xmanager**.
2. For installation process, see '**RedHat Enterprise Linux 4.x, 5.x.**'

### Fedora 8, 9, 10, 11, 12, 13, 14

1. Run /usr/sbin/system-config-printer with root permissions. For remote execution, run in a PC X server, such as **Xmanager**.
2. Click [Add a new printer] and proceed with installation according to the screen instructions.

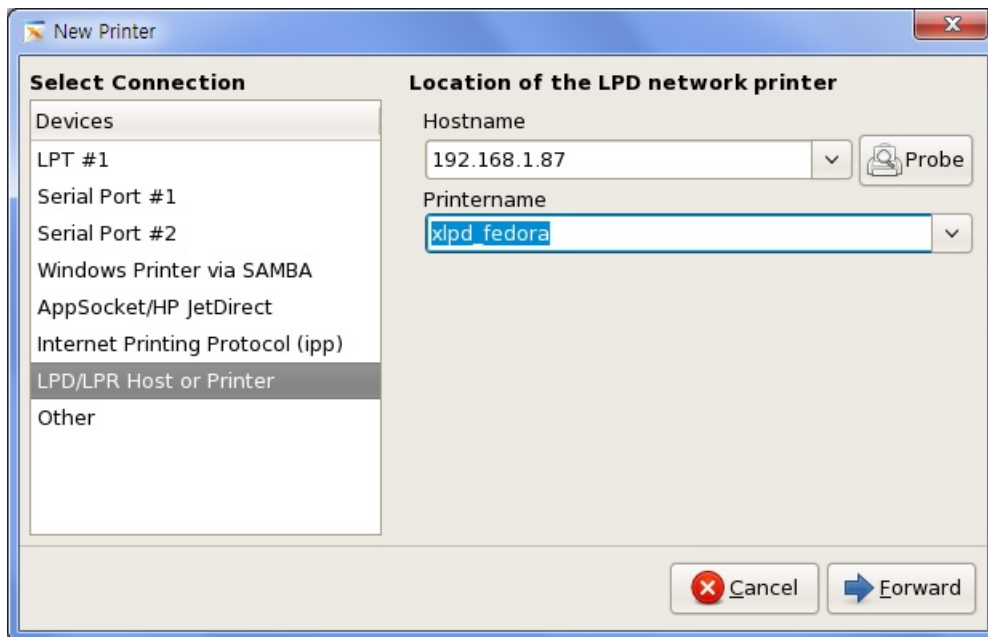


Fig. 9: Fedora Linux printer setup 1

- **Devices:** Select [LPD/LPR Host or Printer].
- **Hostname:** Enter name or IP address of a PC with **Xlpd** installed.
- **Prinertname:** The **Xlpd** queue name. **Xlpd** generates a queue using this name. Printing can be processed with the default queue without generating a queue according to **Xlpd** settings.

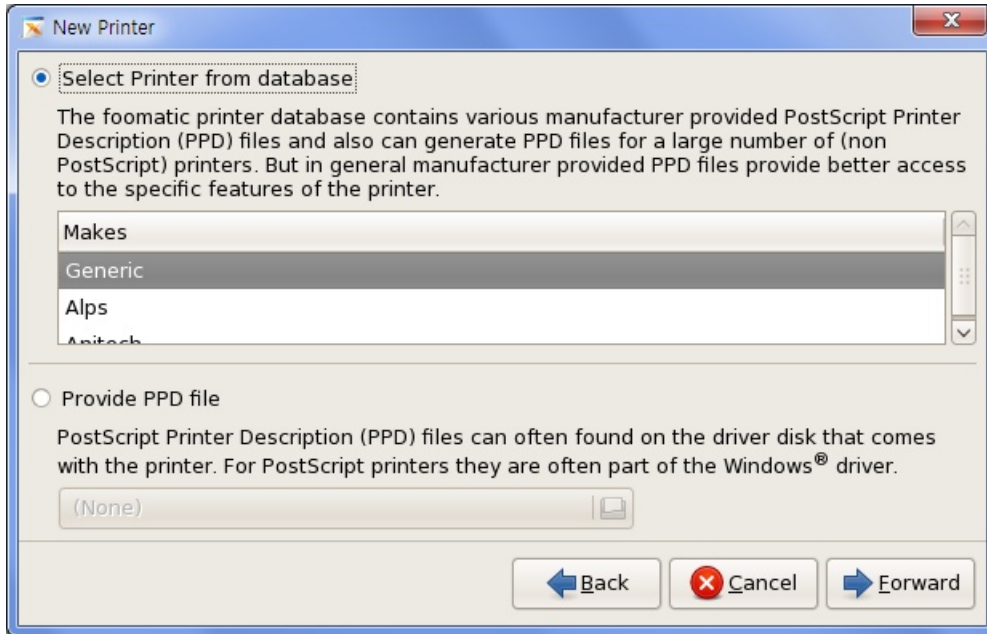


Fig. 10: Fedora Linux printer setup 2

- Select Printer from database:** Select **Xlpd** connected printer model. If model does not exist, select a printer compatible with the printer concerned. Initially, UNIX/Linux application program supported PostScript only. Recently, however, PCL printer language has also been supported. Check compatibility of model to use and select compatible printer in the Generic printer section.

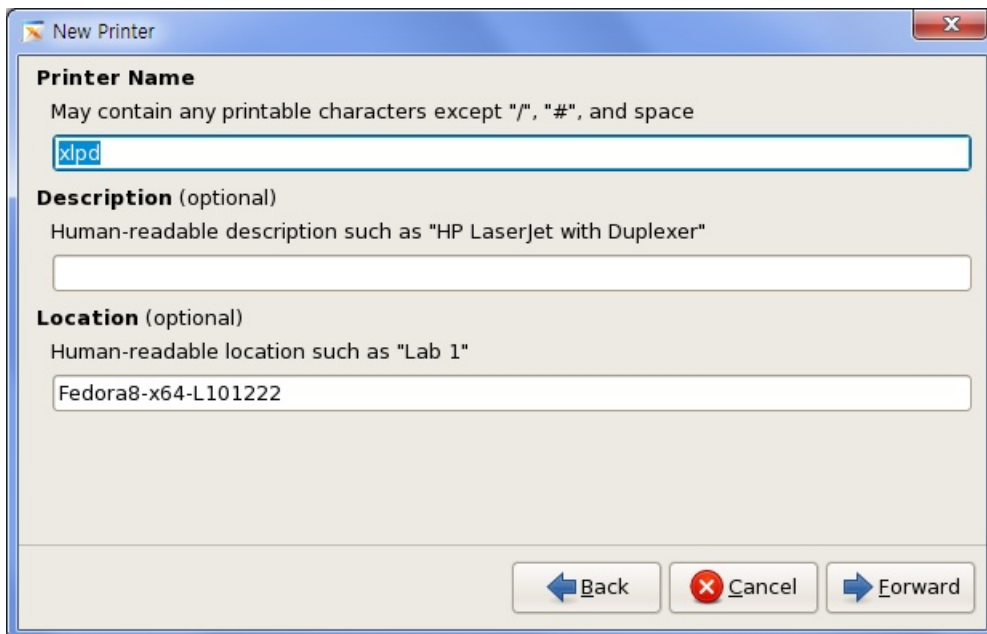


Fig. 11: Fedora Linux printer setup 3

- Printer Name:** Name designated when printing a file with the lpr command or in a Linux application program.

- **Description (optional):** Enter remote printer information, such as printer mode. This item is not used at the printing command.
  - **Location (optional):** Enter information about remote printer location. This item is not used at the printing command.
3. Click [Apply] to complete printer registration.
  4. Command to print a file in RedHat Enterprise Linux is as follows:  
`$ /usr/bin/lpr -Pprinter_name filename`  
 ex) `$ /usr/bin/lpr -Pxlpd /etc/hosts`

## CentOS Printer Setup

### CentOS 4.x

1. Run `/usr/sbin/printtool` or `/usr/sbin/system-config-printer` with root permissions. For remote execution, run in a PC X server, such as **Xmanager**.
2. For installation process, see '**RedHat Linux 9.x, Redhat Enterprise Linux 3.x.**'

### CentOS 5.x

1. Run `/usr/sbin/system-config-printer` with root permissions. For remote execution, run in a PC X server, such as **Xmanager**.
2. For installation process, see '**RedHat Enterprise Linux 4.x, 5.x.**'

## Ubuntu Printer Setup

### Ubuntu 9.x, 10.x

1. Run `/usr/sbin/system-config-printer` with root permissions. For remote execution, run in a PC X server, such as **Xmanager**.
2. For installation process, see '**Fedora 8, 9, 10, 11, 12, 13, 14.**'

## SuSE Linux Printer Setup

### SuSE Linux 10.x, SuSE Linux Enterprise 10.x, 11.x, OpenSuSE 10.x, 11.x

1. Run `/sbin/yast` with root permissions.
2. Select [Hardware] -> [Printer].
3. Select [Add] in [Printers and Queues].
4. Select [Network Printers] for [Printer Type]. (This process may be omitted according to OS.)
5. Select [Print via LPD-Style Network Server] for [Network Printers].
6. Accurately enter information necessary for the following description in the printer setting screen:

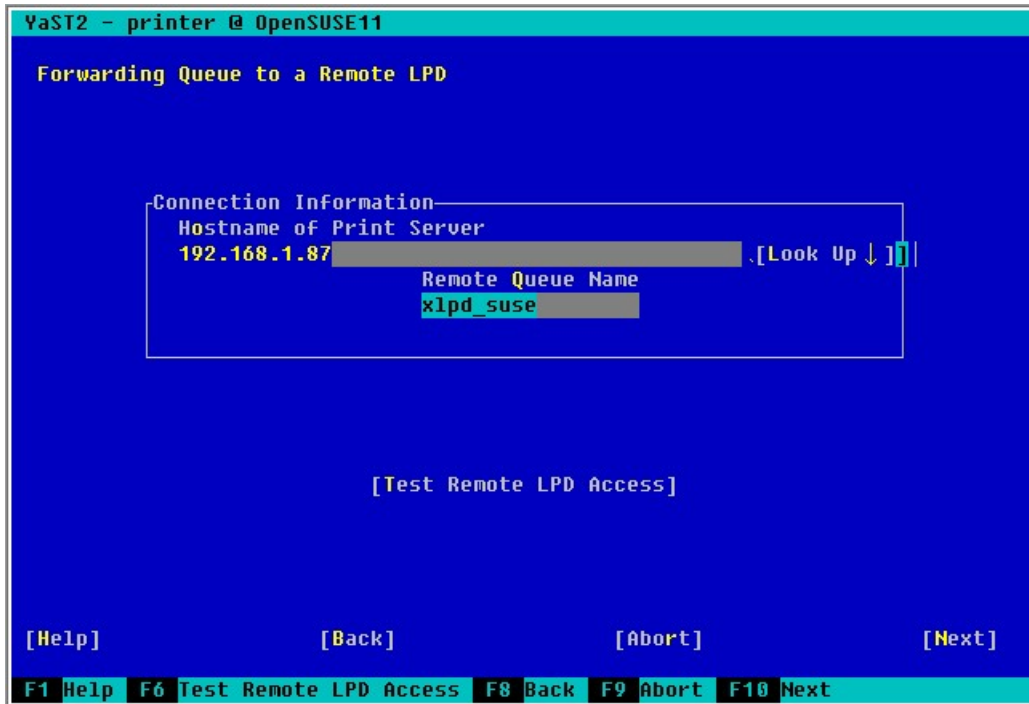


Fig. 12: OpenSuSE 11 printer setup 1

- **Hostname of Printer Server:** Enter the name or IP address of a PC with **Xlpd** installed.
- **Remote Queue Name:** **Xlpd** queue name. **Xlpd** generates a queue using this name. Printing may be processed with the default queue without generating a queue according to **Xlpd** settings.

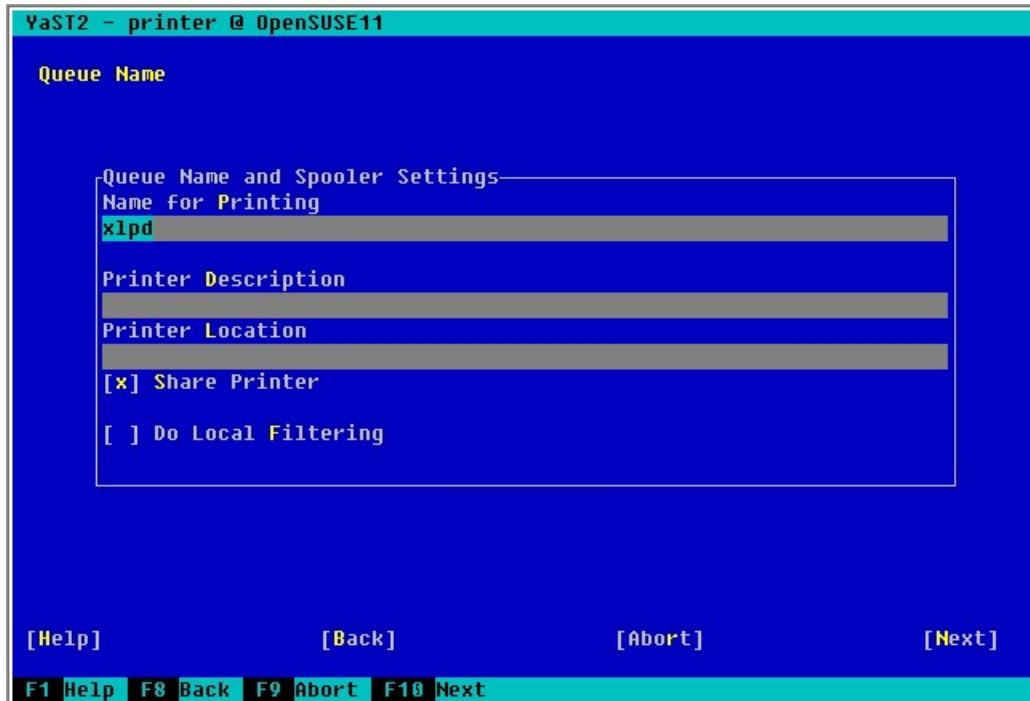


Fig. 13: OpenSuSE 11 printer setup 2

- **Name for printing:** Printer name to be designated when printing a file in SuSE Linux. This information must be entered.
- **Printer Description:** Enter remote printer information, such as printer model. This item is not used at printing command.
- **Printer Location:** Enter information about the remote printer location. This item is not used at printing command.
- **Share Printer:** Select when intending to share printer via the network.
- **Do Local Filtering:** Do not check as it is not used at the LPD printing command.

#### SuSE Linux 9.0

1. Run `/sbin/yast` with root permissions.
2. Click [Hardware] -> [Printer].
3. Click [Configure] in [Printer setup].
4. Click [Print via LPD-Style Network Server] for [Printer Type].
5. Accurately enter information necessary for the description below in the printer setting screen:

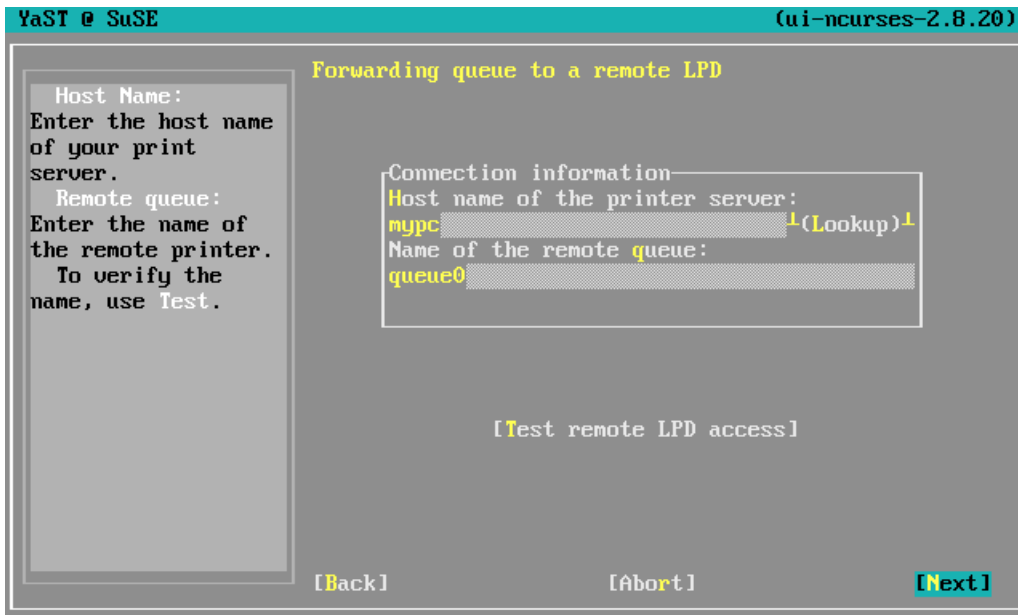


Fig. 14: SuSE 9.0 printer setup 1

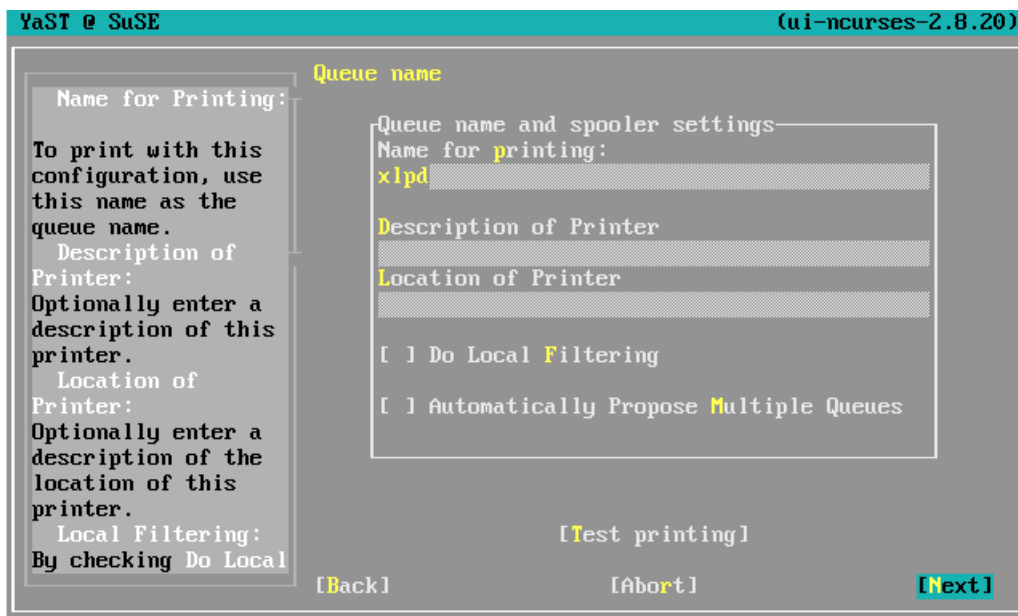


Fig. 15: SuSE 9.0 printer setup 2

- **Hostname of the printer server:** Enter IP address name of a PC with **Xlpd** installed. In some cases, the program may not be installed with an IP address. In such case, be sure to enter the PC name after registering it in `/etc/hosts` file.
- **Name of the remote queue:** Enter the name of queue used in **Xlpd**. If the queue name is not registered in **Xlpd**, print a file with the default queue according to **Xlpd** settings or by generating a new queue.
- **Name for printing:** Printer name to be designated when printing a file with a printer. This information must be entered.
- **Description of Printer:** Enter remote printer information, such as printer model. This

item is not used at printing command.

- **Location of Printer:** Enter information about remote printer location. This item is not used at printing command.
  - **Do Local Filtering:** Do not check as it is not applicable to a local printer.
  - **Automatically Propose Multiple Queues:** Do not check as it is not used at the LPD printing command.
6. Click [Next] -> [Finish], save settings and exit program.
  7. Command to print a file in this OS is as follows. For details, see man page:  
\$ /usr/bin/lpr -Pprinter\_name filename

## Windows 2000/XP/2003/Vista/7 Printer Setup

1. Run [Add Printer Wizard] in the course of implementing [Add Printer].
2. Be sure to select [Local Printer] in a screen asking for [Local or Network Printer (wireless, Bluetooth)]. and then click [Next]. The Choose a Printer Port step appears.

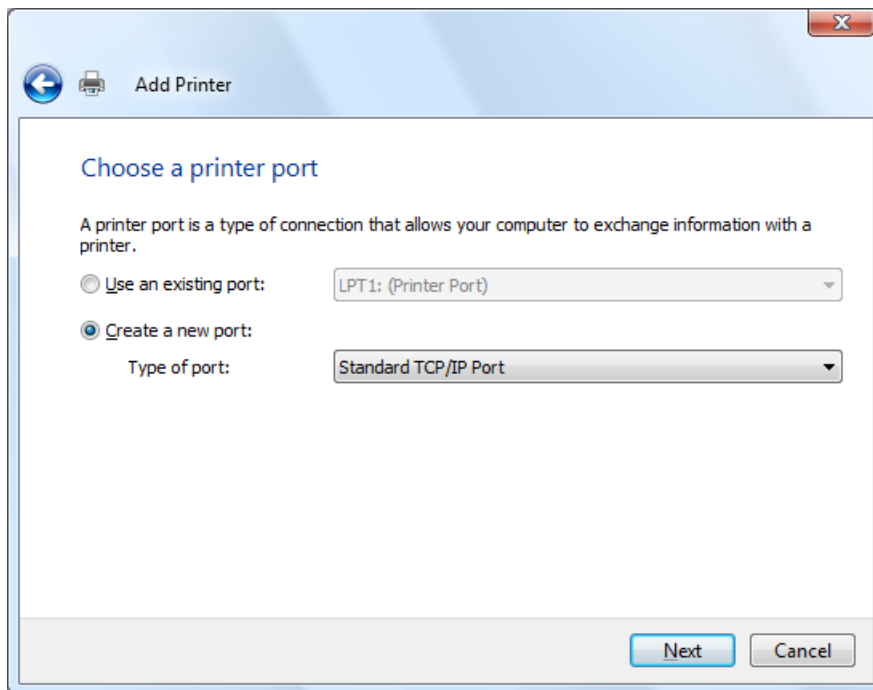


Fig. 16: Windows Add printer wizard, Choose a printer port

3. Select [Create a new port].
4. Select [Standard TCP/IP Port].
5. Click [Next].
6. Enter the necessary information in the step of typing a printer hostname or IP address:

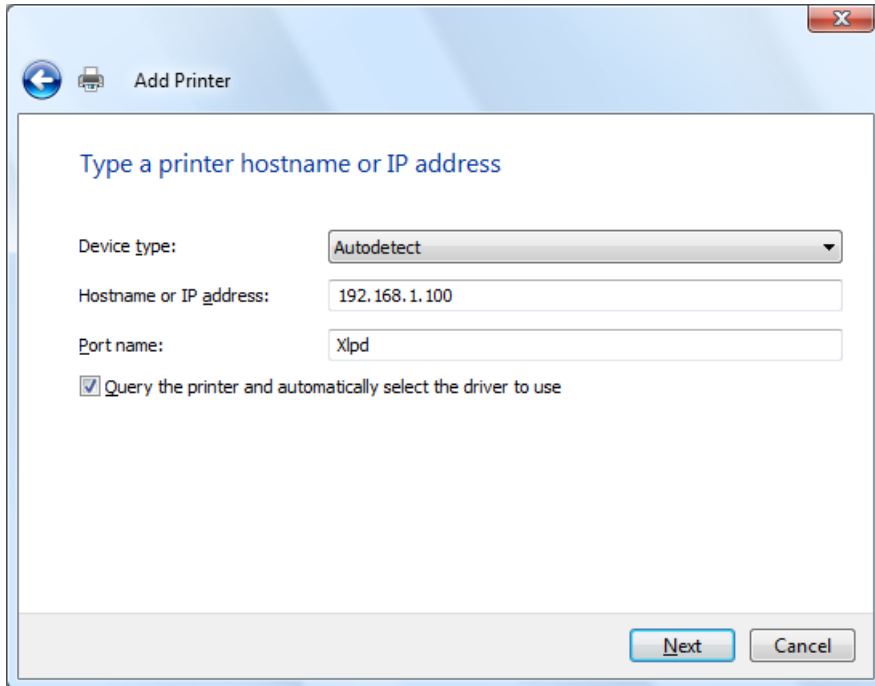


Fig. 17: Windows Add t printer wizard, Type a printer hostname or IP address

- **Printer Name or IP Address:** Enter the IP address name of a PC with **Xlpd** installed.
  - **Port Name:** Enter an intrinsic name. It is okay to enter an automatically generated name when the above printer name is entered.
7. Click [Next]. The Additional Port Information Required step appears.

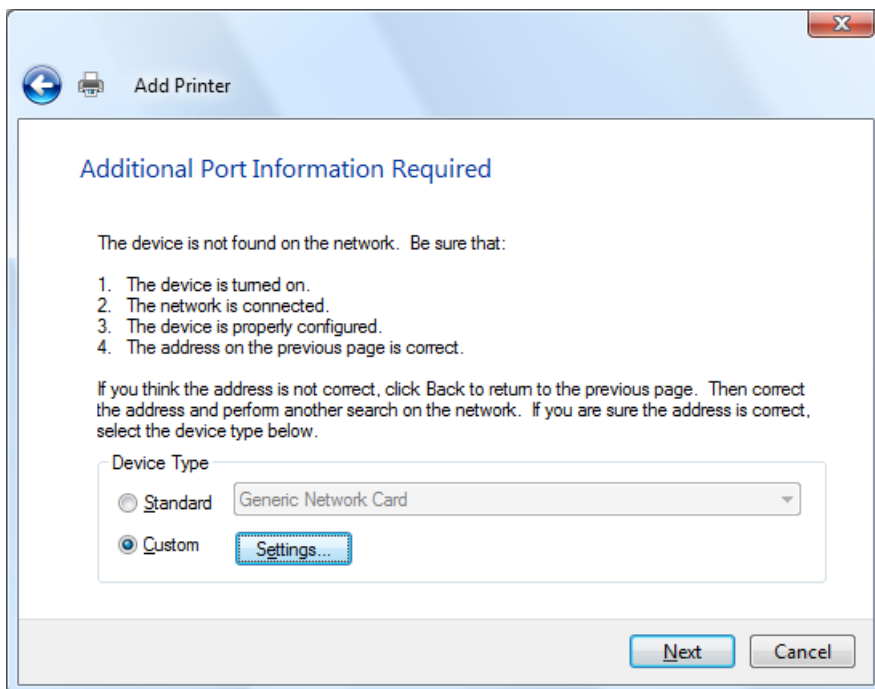


Fig. 18: Windows Add printer wizard, stage 2



8. Select [Custom] and click [Settings]. Configure Standard TCP/IP Port Monitor dialog box is displayed .

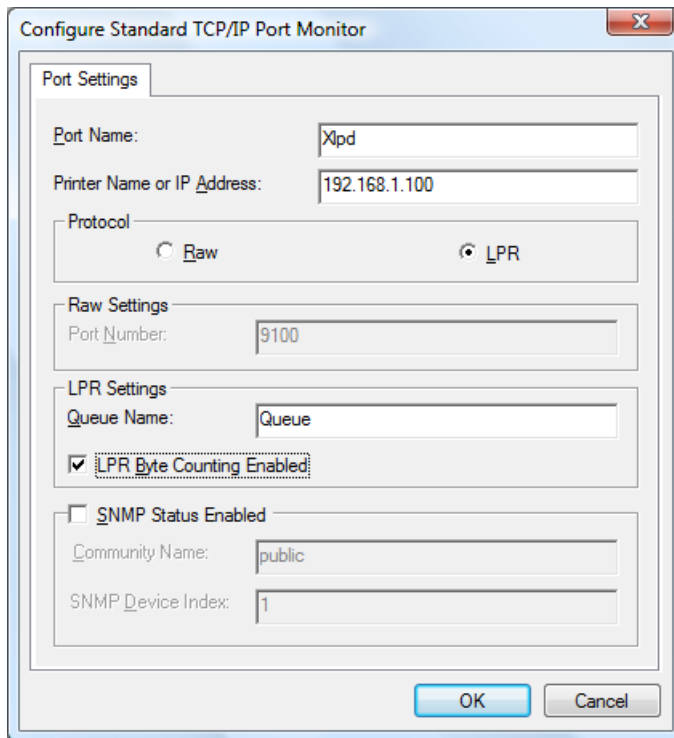


Fig. 19: Configure Standard TCP/IP Port Monitor

- **Protocol:** Be sure to select **LPR**.
  - **LPR Settings – Queue Name:** Enter the name of a queue used in **Xlpd**. If the name is not registered in **Xlpd**, print a file with the default queue or by generating a new queue according to **Xlpd** settings.
  - **LPR Settings – LPR Byte Counting Enabled:** Be sure to check this.
  - **SNMP Status Enabled:** Be sure this is not checked.
9. Click [OK] in the dialog box above to complete the add port wizard.
  10. Complete the remaining add printer wizard process and exit the add printer wizard.

# Xlpd Settings

The settings necessary to operate **Xlpd** can be changed in the **Options** dialog box.

## Change LPD Port

LPD uses the TCP protocol, and its default port number is 515. The port number can be adjusted if the port is already in use by another program, or when required by remote host LPR client settings.

1. Click [Options] in the [Tools] menu. **Options** dialog box is displayed.
2. Enter the required LPD port in [Port].
3. Click [OK].

## Alert Window on Error

When **Xlpd** is run, an icon is generated in the notification area. **Xlpd** does not close and stands by for printing even when the main window is closed. If an error occurs during action, the user must be notified immediately.

1. Click [Options] in the [Tools] menu. **Options** dialog box is displayed.
2. Check [Show an alert window when an error occurs].
3. Click [OK].

## Close Button Action Settings

Even when **Xlpd** is closed via [File] – [Exit], an icon is generated in the notification area according to the options. To completely end **Xlpd**, set the [Exit Xlpd] option.

1. Click [Options] in the [Tool] menu. **Options** dialog box is displayed.
2. Select the [Exit Xlpd] in [Close Button Action].
3. Click [OK].

## Run Xlpd as Windows Service

When set to operate **Xlpd** as Windows service, printing tasks are processed in the corresponding queues even if no user logs in with a specific user account.

1. Click [Options] in the [Tools] menu. **Options** dialog box is displayed.
2. Check [Run as Windows service].
3. Click [OK].

## Previewing Print Job

Preview feature let you view the print job before sending it to the printer. It uses GhostScript and GhostPCL to render print jobs in PDF format. You must install GhostScript and GhostPCL to use this feature. These tools can be downloaded for free and installed selectively during Xlpd install. Also, you can install them manually after the installation. If you have already installed these programs for a different product, you can use the existing executables.

### Note

To preview a print job, first, you have to install GhostScript and GhostPCL. Go to the following links to download the setup files.

GhostScript: <http://www.ghostscript.com/download/gsdnld.html>

GhostPCL <http://www.ghostscript.com/download/gpcldnld.html>

### To Preview a Print Job

1. Click [Options] in the [Tool] menu. **Options** dialog box is displayed.
2. Click the [Preview] tab.
3. For GhostScript path, enter the path for GhostScript executable file. Filename is gswin32.exe.
4. For GhostPCL path, enter the path for GhostPCL executable file. Filename is pcl<Versionnumber>-win32.exe.
5. Click OK to save the changes.
6. In Xlpd, right click on a print job you want to preview and select "Preview this print job".

## Email Notification

Xlpd can send email notification when an error occurs or Xlpd stops or restarts. To receive email notifications, follow the steps below:

1. Click [Options] in the [Tool] menu. **Options** dialog box is displayed.
2. Click the [Advanced] tab.
3. Select the [Enable email notification] option.
4. In the [From] field, enter the email address that will be used as the sender's email.
5. In the [To] field, enter the email address you will be receiving notifications.
6. In the [SMTP server] field, enter the IP address or the domain name of the SMTP email server.
7. In the [Port] field, enter the port number for the SMTP server. Default port number for SMTP server is 25.

### To Authenticate User Before Sending Emails

If the SMTP server requires user authentication, you can use the user authentication feature. To enable this, follow the steps below:

1. Click [Options] in the [Tool] menu. **Options** dialog box is displayed.

2. Click the [Advanced] tab.
3. Select the [Authenticate user before sending emails] option.
4. In the [User name] field, enter the user name for the email server.
5. In the [Password] field, enter the password for the user account.

# Print

This section provides descriptions on text or PS (PostScript) file printing process and methods to directly print files in application programs.

## Change Printer

When **Xlpd** is run for the first time, a printer in the default queue is designated as the default Windows printer.

1. Select the queue to which the printer will be changed from the queues list.
2. Click [Properties] in the [Queue] menu. **Queue Properties** dialog box opens.
3. Click [Setup] in [Printer Setup]. **Print Setup** dialog box opens.
4. Select printer.
5. Click [OK].

## Print PS and PCL Files

PS (PostScript) and PCL (Printer Command Language) files are processed by an application via a corresponding OS printer driver. The files are sent to printers and interpreted for printing. For printing a PS/PCL file, the file should be sent to the printer as is.

For printers that use printer languages other than PS and PCL, use a printer driver that supports the corresponding languages in the application programs.

### To Print PS and PCL Files:

1. Select a queue to print. If a queue does not exist, select the default queue.
2. Click [Properties] in the [Queue] menu.
3. Click the [Data Format] tab.
4. Clear [Apply text format when print].
5. Click [OK].
6. The remote host gives a command to print a PS file with an LPD printer as follows:  

```
$ lpr -Pserver test.ps
```

or  

```
$ lpr -dserver test.ps
```

#### Note

Printing commands vary slightly according to host types. Descriptions of printer setup and printing commands by host are given in 'Remote Printer Setup'.

## Print by Formatting Text File

**Xlpd** permits text file printing by adjusting space or font sizes. It also enables direct printing of a text file without formatting. In such case, a file is printed via the same process as 'Print PS and PCL Files'.

### To Format and Print Text File:

1. Select a queue to print with. If a queue does not exist, select the default queue.
2. Select [Queue] -> [Properties]. **Queue Properties** dialog box opens.
3. Click the [Data Format] tab.

4. Turn on [Apply text format when print].
5. Click [Font]. **Font** dialog box opens
6. Click [OK] after selecting a font.
7. Set margins in [Margin] field.
8. To print a UNIX system text document in a Windows environment, select [Convert CR to CRLF (Carriage Return & Line Feed)].
9. Click [OK].
10. Remote hosts makes a command to print a text file with an LPD printer as follows:  
\$ lpr -Pserver test.txt  
or  
\$ lpr -dserver test.txt

 **Note**

When using a page printer, such as a laser printer, you may have to select the [Append FF(Form Feed) to end of data] option to print the last page.

## Print File Directly in Application Program

A file can be printed with a printer connected directly with a PC in a UNIX application program via **Xlpd**.

### **Xlpd Settings:**

1. Select a queue with a printing job.
2. Select [Queue] -> [Properties]. **Queue Properties** dialog box opens.
3. Click the [Data Format] tab.
4. Clear [Apply Text Format when print].
5. Click [OK].

### **Printing in Netscape:**

1. Click [Print] in the menu.
2. Enter the following in the print screen [Print Command] :  
lpr -Pprinter\_name  
printer\_name in UNIX is that used at printer registration.
3. Click [Print].

## Manage Print Jobs

Printing tasks sent to **Xlpd** are displayed in the jobs list of the queue. The requested print job is either transferred immediately to a printer or kept on the jobs list according to the queue options.

Jobs displayed in the jobs list can be printed when necessary, or deleted. Select a job and right-click on it to display menus related to the print job.

### Job Search Conditions Settings

Only jobs satisfying the search conditions can be displayed.

1. Select [Find] in the [Tools] menu.
2. Designate a queue of jobs to find in [Queue].
3. Select the status of jobs to find in [Job status].
4. Select the owner of jobs to find in [Owner].
5. Enter a character string to search in [Keyword].
6. Click [Search] to display only those jobs in the jobs list satisfying the search conditions.

### Make Job Wait after Receipt

On receiving a printing request from an LPR client, **Xlpd** receives the print job, transfers it to the set printer and starts printing. Via the settings, the requested print job can be kept on expect in the jobs list rather than being transferred immediately to a printer.

1. Select the queue to which to set a print job on standby in the jobs list.
2. Select [Properties] in the [Queue] menu.
3. Click the [General] tab.
4. Turn off [Print received jobs immediately].
5. Click [OK].

### Finished Job Processing

After the requested printing job is successfully transferred to a printer, it can be left in or deleted from the jobs list. A finished job can be left for printing later on, deleted when **Xlpd** ends, or deleted immediately upon completion.

1. Select the queue with which to change the finished print job processing options.
2. Select [Properties] in the [Queue] menu.
3. Click the [General] tab.
4. Select [Delete finished jobs].
5. When [Delete finished jobs] is turned on, select [When Xlpd exits] or [When successfully printed].
6. Click [OK].

### Print Saved Job

1. Select the queue with a stored print job or select all queues.
2. Move mouse to the job in jobs list.
3. Right-click and select [Print Selected Job].

### Delete Saved Job

1. Select a queue with a stored job or select all queues.
2. Move mouse to the job in the jobs list.
3. Right-click and select [Delete Selected Job].

### **Delete Finished Job**

1. Select a queue with a stored job.
2. Move mouse to jobs list.
3. Right-click and select [Delete All Finished Jobs].

### **Delete All**

1. Move mouse to jobs list.
2. Right-click and select [Delete All Jobs].

### **Refresh**

Spool file saved in the system is read and the jobs list is renewed.

1. Select specific queue or select all queues.
2. Click the [Refresh] button on top of jobs list.

# Log Management

All messages generated during **Xlpd** processing can be viewed via a separate log viewer. The list display conditions in the log viewer can be changed by queue, log type, date, character string and etc.

### **To Open Log Viewer:**

**Log Viewer** can be opened via the following method.

1. Click [Log Viewer] in the [Tools] menu.

### **To Change Maximum Log File Size:**

The following settings are required to change the log file size limit.

1. Click [Options] in the [Tools] menu.
2. Click the [Log] tab.
3. Enter a number in [File Size Limit].
4. Click [OK].

If a log grows larger than the maximum designated file size, the previously saved log is saved under a different name.