

Unix and Linux Operating Systems

Configuring Unix & Linux

The Unix and Linux capture method is referred to as **Inbound Connectivity**. Inbound Connectivity is the process of redirecting an application's print stream into a file so that the Reform Spooler can automatically process the information.

Methods used to accomplish Inbound Connectivity

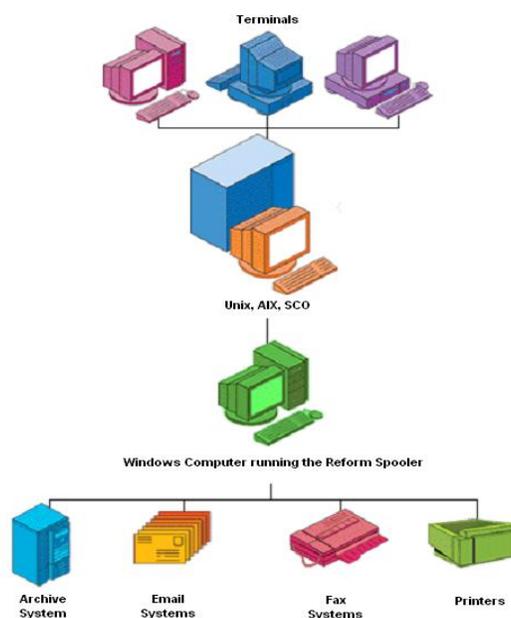
The first method uses Unix/Linux native functions, and is called Line Printer Requester and Line Printer Daemon, or LPR/LPD for short. The Unix/Linux printer Output Queue is redirected to a remote printing device LPR. This printing device is the Reform Printer driver that resides on a Windows computer LPD. This method uses TCP/IP to connect the Unix or Linux machine to the Windows computer.

The second method uses file transfer to allow the Reform Spooler to process your print streams. First, create a directory on the UNIX file server and call it "ReformSpooler" or something to that effect. This directory will serve as a shared directory between the UNIX machines and the Windows machine running the Reform Spooler. In Reform setup, change the **Spooler Directory Location** to the shared spooler location on the UNIX file server or the Windows machine. The UNIX applications will need to redirect their printouts to this shared spooler directory in order for Reform to detect and process the output files. There are many utilities on the market to make the connection between the UNIX and Windows computers; the two that we recommend are:

Samba

www.samba.org

FacetWin by FacetCorp – www.facetcorp.com



Setting up a Unix LPR Printer

SCO Unix

Setup steps

1. Go to **scoadmin >> Printers >> Printer Manager**.
2. Go to **Printer >> Add Remote >> Unix**.

The Host name is the IP address of the windows computer running the Reform Spooler.

The Printer name is **reformprn**.

Your Unix screen should look like the following, though the Host IP address may differ:

```
----- Add Remote UNIX Printer -----  
Host 192.168.0.3 _____ | [ Select... ]  
Printer reformprn _____ | [ Select... ]  
[ ] Use extended remote printing protocol  
[ OK ] [ Cancel ] [ Help ]
```

Note: In some systems like AIX you cannot use an IP address for the host address, you must add a name to the Host file, this host file is usually located in the /etc directory. For example in the HOST file you have:

```
REFORM 192.168.0.3
```

When you add your printer queue you would use the name REFORM instead of the IP address.

Setting up a Linux LPR Printer

Linux Redhat 7.2 KDE

Go to System >> Printer Manager, and adjust the following settings:

First Dialog:

Queue Name: ReformPrinter

Type: Unix Printer LPD

Second Dialog:

Server: <Windows IP #>

Queue: reformprn

Note: the Windows IP # is typically the IP address of the windows computer running the Reform Spooler.

Third Dialog:

Printer: Text Only Printer

Other Linux system can edit the printcap file directly. The queue name in the printcap file located in the /etc/printcap directory should look like the following:

```
ReformPrinter:\  
:sh:\
```

```
:ml=0:\
:mx=0:\
:sd=/var/spool/lpd/ReformPrinter:\
:af=/var/spool/lpd/ReformPrinter/ReformPrinter.acct:\
:rm=192.168.0.3:\
:rp=reformprn:\
:lpd_bounce=true:\
:if=/usr/share/printconf/util/mf_wrapper:
```

Note: Change the rm ip # to reflect your Windows IP address.

AIX LPR Setup instructions

```
# vi /etc/hosts
```

In vi add an entry for Reform <IP address of windows machine that is running Reform>

Note to insert a new line move down to the location and press [ESC] Shift i

To quit and save press [ESC] : then wq

Vi command:

Text Input Mode

Text input mode can be used to enter and delete new text in your file. Below is a table showing the various key sequences to place you into text input mode as well as those to return to command mode and perform operation while in text input mode. When you are in text input mode, everything you type will be placed into your document until you press the [ESC] key.

Key Action Key Action

```
-----
a Insert after cursor A Append to end of line
i Insert before cursor I Insert at beginning of line
o Insert line below cursor O Insert one line above cursor
[CTRL][J] Move down one line [CTRL][W] Move back one word
[ENTER] Add a new line [Backspace] Move back one character
kill Delete line (set by stty) [CTRL][H] Move back one character
[CTRL][I] Insert a tab [CTRL][T] Move to next tab setting
[ESC] Returns to command mode [CTRL][V] Quote next character
```

```
# smit
```

System Management

Move cursor to desired item and press Enter.

- Software Installation and Maintenance
- Software License Management
- Devices
- System Storage Management (Physical and Logical Storage)
- Security & Users
- Communications Applications and Services
- > Print Spooling **
- Problem Determination
- Performance & Resource Scheduling
- System Environments
- Processes and Subsystems
- Remote Customer Support and Services
- Applications
- Cluster Systems Management
- Using SMIT <information only>

Move cursor to desired item and press Enter.

AIX Print Mode Only:

- Start a Print Job
- Manage Print Jobs
- List All Print Queues
- Manage Print Queues
- > Add a Print Queue **
- Add and Additional Printer to an Existing Print Queue
- Change / Show Print Queue Characteristics
- Change / Show Printer Connection Characteristics
- Remove a Print Queue
- Manage Print Server
- Programming Tools

AIX and System V Print Mode:

- Change / Show Current Print Subsystem

Move cursor to desired item and press Enter.

AIX Print Mode Only:

Start a Print Job

Manage Print Jobs

List All Print Queues

Manage Print Queues

> Add a Print Queue **

Add and Additional Printer to an Existing Print Queue

Type of Remote Printing

Move cursor to desired item and press Enter.

Standard Processing **

Standard with NFS access to server print queue attributes

Local filtering before sending to print server

Add a Standard Remote Print Queue

Type or select values in entry fields.

Press Enter AFTER making all desired changes.

[Entry Fields]

1. Name of QUEUE to add [reformprn]
2. HOSTNAME of remote server [reform]
3. Name of QUEUE on remote server [reformprn]
4. Type of print spooler on remote server AIX Version 3 or 4
Backend TIME OUT period <minutes>
Send control file first?
To turn on debugging, specify output file pathname no
DESCRIPTION of printer on remote server [reform]

Quick test:

At the AIX prompt:

```
lp -d reform /etc/hosts
```

you should see a file appear in the \Reform...\Spooler directory

Note make sure the Reform Spooler is off or in the stop position.

Trouble Shooting:

On the Reform windows machine go to DOS prompt:

Type ipconfig

Note this should return the IP address that you specified in the AIX host file.

Windows Type NETSTAT –NA

Note you should see a port 515 that is in the listening state, if not the TCP/IP Print windows service may not be running. To check windows service go to Control Panel >> Administration Tools >> Services.

AIX prompt type lpstat –preformprn to see that status of the job

AIX prompt ping the windows machine by typing:

ping reform

Note if ping fails the /etc/hosts table may have the wrong IP number, the IP number should be the same as the ipconfig results from the windows machine.

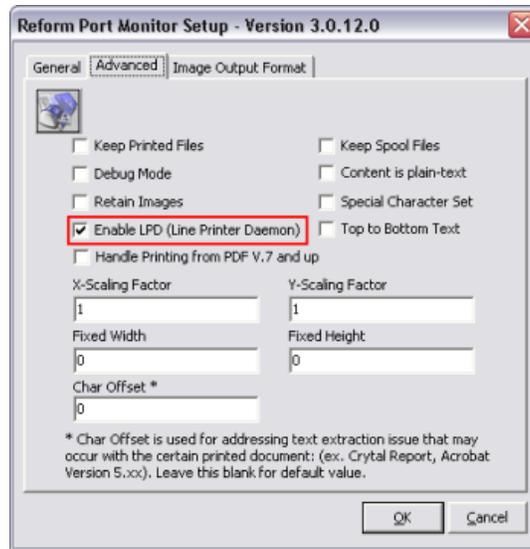
Configuring the Reform Printer

Note: Before proceeding, you must install the Reform Printer on the machine running Reform. See the section titled 'Reform Printer Driver' in this manual for Reform Printer installation instructions.

Once the Reform Printer has been installed, it must be configured to accept print jobs. To do so, follow the steps below:

Open your Windows Control Panel on the machine running Reform (**Start >> Control Panel**), and double-click **Reform Port Monitor Setup**.

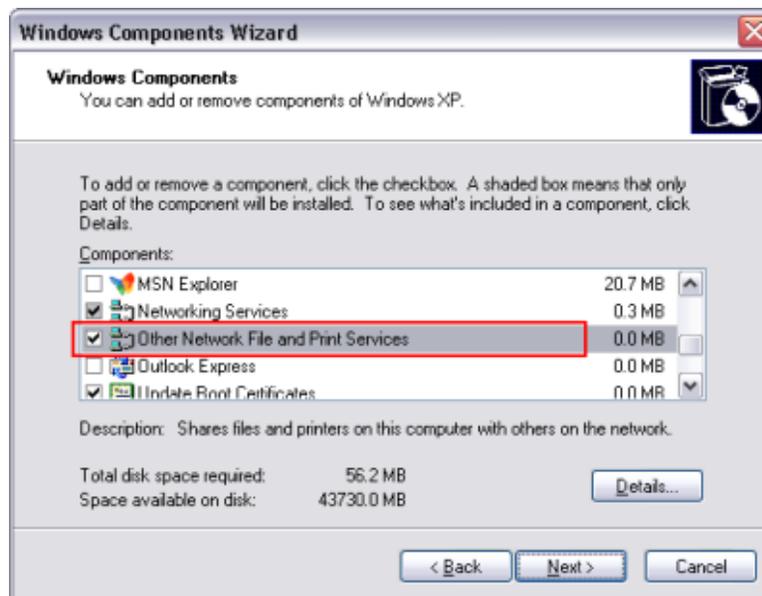
Click the **Advanced** tab, and make sure the box labeled 'Enable LPD (Line Printer Daemon)' is checked, as illustrated below.



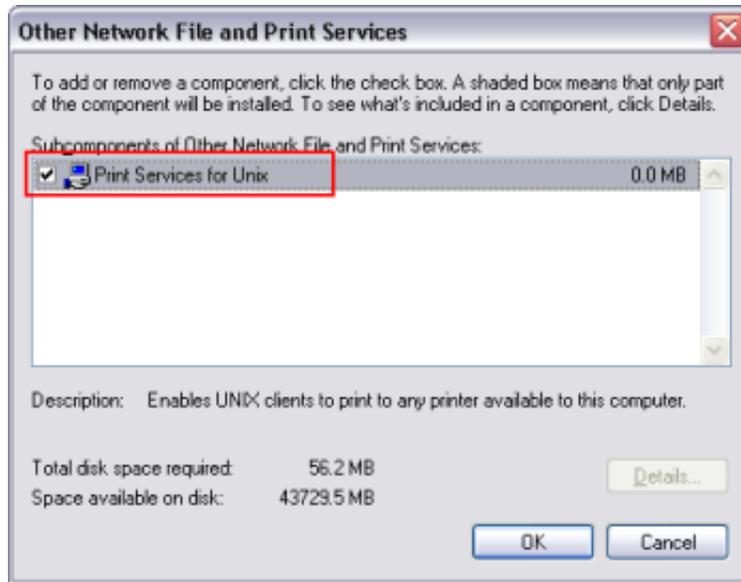
Click **OK** to exit the Reform Port Monitor Setup.

LPD Windows 2000/XP/2003

To configure LPD Windows 2000, go to **Control Panel >> Add/Remove Programs >> Add/Remove Window Components >> Other Network File and Print Services >> Printer Services for UNIX**. Select **Other Network File and Print Services**, as shown below.



Click the **Details** button Select **Print Services for Unix**.



Select **OK** to install service.

LPR/LPD Reference Information

The LPD service listens on TCP/IP port 515.