XPrint UNIX System Printer Driver Installation
SOLARIS 1.X (SUN OS) / SOLARIS 2.X

XPrint Color Series

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Table of Contents

1   How to read this Manual

You will see throughout this manual the reference to 49XX.

49XX is generic.

When you see this, substitute the actual model name of your XPrint printer. This would be ONE of the following:

4915

4920

4925

FTP sites where this document is available

You may FTP updated release packages from the following sites:

ftp.xerox.com/pub/drivers
spectrum.xerox.com/pub/drivers

2   Quick Setup SOLARIS 1.X , 2.X

Overview:

Quick Setup offers the experienced System Administrator a quick route to printer installation and configuration.

Setup:

1. Verify physical cable connections from your printer to the network. See Network Interface Guide

2. Assign XPrint printer an IP Address at the control panel. See Appendix B

3. Add your XPrint printer's TCP/IP address and hostname to your NIS database. For non NIS networks, add the TCP/IP address and hostname to your machine's /etc/hosts table.

4. Verify IP connectivity with the UNIX "ping" command.

5. TYPE: ping <49XX_hostname> [ENTER]

   NOTE: To print, the command MUST return 49XX_hostname is alive. If it does not, then proceed to the TCP/IP Troubleshooting section of the manual.

6. Insert XPrint PostScript Print Tool installation diskette #1 into the floppy drive of your system.

7. To run XPrint installation script.:

Solaris 1.X USERS:

From a command line, TYPE:
cd /tmp [ENTER]
bar xvfp /dev/rfd0 [ENTER]
XeroxInstall/setup [ENTER]

Solaris 2.X USERS:

From a command line, TYPE:
 volcheck [ENTER]
cd /tmp [ENTER]
cp /floppy/floppy0/setup . [ENTER]
./setup [ENTER]

8. Follow setup instructions to install the XPrint PostScript Print Tool.

9. When installation is complete, setup will automatically launch the Setup49XX configuration tool.

10. Review the Installation Overviews for Solaris and NON Solaris UNIX systems in Chapter 4 to decide how you wish your XPrint printer connected. The possible configurations are:

Direct Connect (parallel port)
Network (Remote network printer)
Network (Remote network Spooler)
Network (Configuring a Remote print Spooler)

3 Quick Setup NON SOLARIS UNIX

Overview:

Quick Setup offers the experienced System Administrator a quick route to printer installation and configuration.

Setup:

1. Verify physical cable connections from your printer to the network. See Network Interface Guide

2. Assign XPrint printer an IP Address at the control panel. See Appendix B

3. Add your XPrint printer's TCP/IP address and hostname to your NIS database. For non NIS networks, add the TCP/IP address and hostname to your machine's /etc/hosts table. Verify IP connectivity with the UNIX "ping" command.

4. TYPE: ping <49XX_hostname> [ENTER]

    NOTE: To print, the command MUST return 49XX_hostname is alive. If it does not, then proceed to the TCP/IP Troubleshooting section of the manual.

CHOOSE YOUR UNIX VARIETY AND PERFORM THE FOLLOWING STEPS:

Berkeley BSD UNIX:
Add following entry to the /etc/printcap file (as root). Use "ps" for "Remote Printer" entry (case sensitive). 49XX_hostname is host entry for the 49XX:

```
49XX:\
:lp=:\
:rm=49XX_hostname:\
:rp=ps:\
:sd=/var/spool/49XX:\
```

System 5 UNIX:
Use the following lp command sequence (as root). Use "ps" for "Remote Printer" entry (case sensitive). 49XX_hostname is host entry for the 49XX:

```
/sbin/sh
/usr/sbin/lpshut
/usr/sbin/lpsystem -t bsd 49XX_hostname
/usr/sbin/lpadmin -p 49XX -I any -s 49XX_hostname!ps
/usr/lib/lp/lpsched
/usr/sbin/accept 49XX
/usr/sbin/enable 49XX
```

4   Installation Overview SOLARIS 1.X /2.X

1. Verify physical cable connections from your printer to the network.

2. Configure your TCP/IP environment and the XPrint printer so they can communicate with each other. Details in Chapter 6

3. Install XPrint printer driver on server or station by ONE of the following methods:

   Floppy Disk Install: Details in Chapter 7
   Network Install: Details in Chapter 9

4. Configure your UNIX workstation for any of the following printing environments:

   Solaris workstation to a remote XPrint printer: Details in Chapter 10

   Solaris workstation to a remote print spooler: Details in Chapter 11

   Solaris workstation to a direct connected parallel printer:
   Details in Chapter 12

   Setting up a network installation site: Details in Chapter 8

5   Installation Overview for NON SOLARIS Workstations

1. Verify physical cable connections from your printer to the network.

2. Configure your TCP/IP environment and the XPrint printer so they can communicate with each other. Details in Chapter 6

6   TCP/IP XPrint printer Configuration

Overview:

The XPrint printer by default receives its TCP/IP address dynamically from a RARP or BOOTP server. To override this setting, you can set the TCP/IP address at the control panel, by telnet, or by the PC and MAC Printer Services. To set up a RARP or BOOTP server, consult your Solaris documentation. It is recommended that initially, you set the IP address at the control panel.

The XPrint TCP/IP parameters Subnet Mask and Default Gateway are optional if you are not communicating to your XPrint printer over a WAN. The default is 000.000.000.000. We recommend that you set both of these parameters if the XPrint printer is on an inter-network with more then 1 segment.

Assigning your XPrint printer a TCP/IP Address:

Dynamic (default)

Configure the RARP / BOOTP server with the new TCP/IP and EtherNet address. To obtain the XPrint printer EtherNet address, print out a Printer Settings page at the XPrint control panel. The EtherNet address is on this page. (consult your Solaris documentation for more RARP / BOOTP server configuration details)

Static

Perform steps contained inAPPENDIX B Setting the IP address at the XPrint printer Control Panel

XPrint UNIX SYSTEM PRINTER DRIVER INSTALLATION

7   XPrint PostScript Print Tool Installation (Floppy Disk)

Overview:

Xprint is supported currently in the Sun Solaris 1.X / 2.X operating systems.

The XPrint PostScript Print Tool is both a print driver and a spooling daemon. The XPrint PostScript Print Tool and print daemon work in conjunction with your Solaris 1.X and 2.X printing and spooling mechanisms.

A floppy disk installation is advisable for a small number of installations at a site (1-5) or for standalone workstations without a network connection. For greater number of installations or simplicity reasons, use the network installation option of XPrint described in Chapter 8.

Setup:

NOTE: Read the Installation Overview for your type of UNIX and select how your XPrint printer will be connected before you perform the following procedures.

NOTE: You must be able to "ping" the XPrint printer, using its hostname before proceeding.

NOTE: You will need the printer's hostname before performing the following procedures.

NOTE: You must be root to perform the following procedures.

1.   Insert XPrint PostScript Print Tool installation diskette #1 in your system's floppy drive.

2.   Run XPrint installation script:

Solaris 1.X USERS:

3. From a command line, TYPE:
    cd /tmp [ENTER]
    bar xvfp /dev/rfd0 [ENTER]
    XeroxInstall/setup [ENTER]

Solaris 2.X USERS:

NOTE: Volume Manager must be set up to recognize the floppy drive

4. From a command line, TYPE:

    cd /tmp [ENTER]
    volcheck [ENTER]
    cp /floppy/floppy0/setup . [ENTER]
    ./setup [ENTER]

5. From the Install Print Driver and Utilities menu.

    Install Print Driver and Utilities

    1) Install Driver and Utilities
    2) Create an installation site.
    3) Create Installation diskettes
    e) Exit

    Enter option:

    Select desired option then answer all installation questions when prompted.

    The Xprint installation script will automatically start when successfully installed. See
    Chapter 4 Installation Overview Step 4 to determine the desired environment for
    your XPrint printer.

8   Installing XPrint PostScript Print Tool from a Network Installation Site.

Overview:

A network installation of the XPrint PostScript print tool is advisable for large numbers of installations or for simplicity sake. It is MUCH easier and faster to install XPrint from your network then from floppy. Of course you will have to have an installation site set up correctly for you to proceed with the following instructions

Setup:

1. Change to the network directory containing the XPrint installation set. You may have to mount the remote directory and then run setup:

2. TYPE:
    cd <installation directory> [ENTER]
    ./setup [ENTER]

    <installation directory> is the shared directory where the XPrint software was installed

3. From the Install Print Driver and Utilities menu select option1.

    Install Print Driver and Utilities

    1) Install Driver and Utilities
    2) Create an installation site.
    3) Create Installation diskettes
    e) Exit

    Enter option:

    TYPE: 1 [ENTER]

    Enter a destination directory for the XPrint print driver when prompted.

    The Xprint installation script will automatically start when successfully installed. See Chapter 4 Installation Overview Section 4 to determine the desired environment for your XPrint printer.

    TYPE: e [ENTER] to exit the printer installation script.

9 Printing Model: Workstation to printer.

Overview:

Run the XPrint setup utility to configure your Solaris 1.X / 2.X client to print to a network connected XPrint printer.

A network connected printer is a XPrint printer that has the Network Interface Card (NIC) installed and connected to a functioning network.

Setup:

NOTE: The following instructions assume you have correctly completed the XPrint PostScript Print Tool installation.

NOTE: Read the Installation Overview for your variety of UNIX and select how your XPrint printer will be connected before you perform the following procedures.

1. Become superuser. Run the 49XX printer setup utility:

2. TYPE: /bin/setup49XX [ENTER]

NOTE: 49XX is model number for the printer model you are installing. For example, if you are installing XPrint 4920, then the setup command would be setup4920

1. From the Setup XPrint49XX menu, select option 1.

```
Setup XPrint49XX

1) Add or Update a Printer
2) Remove an existing printer.
e) Exit

Existing printer list:

Enter option:
```

2. TYPE: 1 [ENTER]

3. From the Add or Update a Printer menu, select option 2 until it indicates "workstation to printer".

```
Add or Update a Printer

 1) Setup the printer name (queue name)  []

 2) Setup printing model .......... [1. workstation to printer]

 3) Setup printer connection ..... [1. TCP/IP]
                                   [2. local device]

 4) Setup the printer's host name ...... []

 8) Setup user interface ......... [2. GUI]
                                   [1.  none]
                                   [3.  TTY]

10) Setup banner page printing ... [2. enabled]
                                   [1. disabled]

11) Setup tray two printing ...... [1. disabled]
                                   [2. enabled]

12) Set as default printer ....... [1. No]
                                   [2. Yes]

13) Setup daemon to use for printing ... [1. XPrintD]


 a) Apply settings                      c) Cancel

Enter option or h for help:
```

1. Enter a menu option number to toggle through the available settings. When the desired settings for all options are reached, apply the settings to the printer using the " a " option in the menu.

10 Printing Model: Workstation to print server.

Overview:

You need to be a superuser to use the following procedures. Run the 49XX setup utility
to configure your Solaris 1.X / 2.X client to print to a remote 49XX printer. A remote print
spooler is a Solaris 1.X / 2.X workstation that has been configured to be a remote spooler
by the setup49XX configuration utility. SEE Chapter titled *Printing Model: Print
Server to printer* for this procedure. The 49XX remoter spooler spools jobs to a direct
connected or network connected 49XX printer.

Setup:

NOTE: The following instructions assume you have correctly completed the XPrint
49XX PostScript Print Tool installation.

1. Become superuser. Run the 49XX printer setup utility.

2. From the directory into which you installed the XPrint Print Tool software,

TYPE: /bin/setup49XX [ENTER]

NOTE: 49XX is model number for the printer model you are installing. For example, if
you are installing XPrint 4920, then the setup command would be setup4920

2. From the Setup XPrint49XX menu, select option1.

Setup XPrint49XX

1) Add or Update a Printer
2) Remove an existing printer.
e) Exit

Existing printer list:

Enter option:

TYPE: 1 [ENTER]

3. From the Add or Update a Printer menu, select option 2 until it indicates "workstation to print server".

```
 Add or Update a Printer

 1) Setup the printer name (queue name)  []
 2) Setup printing model ........ [2. workstation to print server]
 6) Setup the print server's host name . []
 7) Setup the print server printer name  []
 8) Setup user interface ............... [2. GUI]
10) Setup banner page printing ........ [2. enabled]
11) Setup tray two printing ............ [1. disabled]
12) Set as default printer ............. [1. No]
13) Setup daemon to use for printing ... [1. XPrintD]


 a) Apply settings                    c) Cancel
```

4. Enter a menu option number to toggle through the available settings. When the desired settings for all options are reached, apply the settings to the printer using the " a " option in the menu.

11 Printing Model: Print server to printer

Overview:

Run the 49XX setup utility to configure your Solaris 1.X / 2.X client to function as a remote print spooler for lp, lpr, and other XPrint clients on your network. You can configure the remote print spooler to spool to direct connected (parallel port) or to a network connected 49XX printer.

Setup:

NOTE: The following instructions assume you have correctly completed the XPrint 49XX PostScript Print Tool installation.

NOTE: You will need to have the device driver name for your parallel port to complete the following procedure.

1. Become superuser. Run the 49XX printer setup utility:

    TYPE: /bin/setup49XX [ENTER]

NOTE: 49XX is model number for the printer model you are installing. For example, if you are installing XPrint 4920, then the setup command would be setup4920.

2. From the Setup XPrint49XX menu, select option1.

```
    Setup XPrint49XX

1) Add or Update a Printer
2) Remove an existing printer.
e) Exit

Existing printer list:

Enter option: 1
```

TYPE: 1 [ENTER]

3. From the Add or Update a Printer menu select option2 until it indicates "print server to printer".

```
Add or Update a Printer

 1) Setup the printer name (queue name)  []

 2) Setup printing model ......... [3. print server to printer]

 3) Setup printer connection ........... [1. TCP/IP]

 4) Setup the printer's host name ...... []

13) Setup daemon to use for printing ... [1. XPrintD]


 a) Apply settings                    c) Cancel

Enter option or h for help:
```

4. Enter a menu option number to toggle through the available settings. When the desired settings for all options are reached, apply the settings to the printer using the " a " option in the menu.

12 Removing a XPrint printer.

Overview:

Run the setup49XX configuration utility to remove a XPrint 49XX printer configuration from your workstation or remote print spooler.

Setup:

NOTE: The following instructions assume you have correctly completed the XPrint 49XX PostScript Print Tool installation. You will need to know the complete path to the installation directory or have added it to your search path to continue.

1. Become superuser. Run the 49XX printer setup utility:

    TYPE: /bin/setup49XX [ENTER]

NOTE: 49XX is model number for the printer model you are installing. For example, if you are installing XPrint 4920, then the setup command would be setup4920.

2. From the Setup XPrint49XX menu, select option 2.

    ```
    Setup XPrint49XX

    1) Add or Update a Printer
    2) Remove an existing printer.
    e) Exit

    Existing printer list:

    Enter option:
    ```

    TYPE: 2 [ENTER]

13 Administration

Overview:

TCP/IP and lpr on the 49XX can be administrated in a number of different ways:

Telnet
PC XPrint Printer Services
MAC XPrint Printer Services
49XX Control panel

It is up to you and your environment to decide which administration utility best fits your needs.

4915/4920/4925 Printer Parameters Configurable via Telnet

The 49XX printer allows MOST of its Network Card (NIC) parameters to be viewed and set using Telnet. The 49XX printer NIC can also be remotely reset or initialized using Telnet.

The following is a summary of Telnet configurable NIC parameters:

Protocol Settings

TCP/IP:
       ip address (can be hard coded: xxx.xxx.xxx.xxx)
       ip security (can be set up by ip address and even by ip subnet #'s)
       LPD ("Line Printer Daemon" enabled/disabled)
       LPR Banner Pages (yes/no -- Enable / Disables LPR banner pages)

IPX:
       Netware (Enables / Disables IPX Pserver)
       Ethernet Type (IPX packet frametype settings)
       Primary Netware Server (NetWare server storing 49xx queue and pserver information)
       Netware Printer Name (name NIC uses to advertise itself and attach to Netware queues)
       Queue Scan Rate (time interval that 49XX waits before it polls it queue(s) for print jobs.)

AppleTalk:
       EtherTalk (enabled/disabled)

NetBeui:
       Netbeui Group (workgroup printer displays itself in)
       Netbeui Name (name printer displays itself as)
       Service Name (name advertised on Microsoft NETBEUI network)
       Service Description (text description of printer)
       Service Password (password used on Microsoft NETBEUI network)

NIC Settings

Ethernet:
      Connector Type (bnc, rj45, autoselect)
TokenRing:
      Connector Type (db9, rj45, autoselect)
      Ring Speed (4mbs, 16mbs)
      Routing (yes/no -- source routing: enabled/disabled)
      Card Address (TokenRing physical address can be set)
      Reset Printer (yes/no -- resets NIC and enables any NIC changes)
      Reset network card settings to factory defaults (yes/no -- resets NIC to default settings)

Read Only Settings

The following is a list of displayable NIC parameters (Read Only)

      NIC Firmware Revision (NICs firmware revision)
      Processor Speed (NIC processor speed)
      Ethernet Address (physical layer address)

To Use Telnet:

At any Telnet client (UNIX, WFW3.11, NT, DOS, ...) Telnet to port 2002 of the 49XX.

> NOTE: Telnet will work only if the TCP/IP protocol stack is loaded AND it supports Telnet.

> NOTE: In the following examples, the expression XXX.XXX.XXX.XXX refers to the IP address of your XPrint printer. See Appendix A to obtain PRINT SETTINGS page for review of your printer's IP address. If necessary, see Appendix B to set your printer's IP address.

Starting TELNET from UNIX:

At the Command prompt TYPE: telnet XXX.XXX.XXX.XXX 2002 [ENTER]

Starting TELNET from WINDOWS NT:

At the Command prompt TYPE: telnet XXX.XXX.XXX.XXX 2002 [ENTER]

Starting TELNET from WFW3.11 (with Microsoft's win32s TCPIP stack):

At the Command prompt TYPE: telnet XXX.XXX.XXX.XXX 2002 [ENTER]

The Telnet Console Main Menu:

At the Command prompt TYPE: telnet XXX.XXX.XXX.XXX 2002 [ENTER]

The system will attempt to connect to the host. You will see:

```
Trying  XXX.XXX.XXX.XXX
Connected to XXX.XXX.XXX.XXX
Escape character is '^]'

Telnet Console on
Type "S" to see current status
Type "!" to enter monitor
```

Checking Printer Status:

Telnet offers a very quick way to determine printer status remotely via TCP/IP. Once connected to the 49XX maintenance port (2002), real-time status can be viewed remotely in the Telnet console screen.   If the printer is idle, you can poll the printer by typing "s" at the Telnet console.

Example:
In the following example, the 49XX is printing a job from host 13.231.30.3.:

At the Command prompt TYPE:telnet XXX.XXX.XXX.XXX 2002 [ENTER]

The system will attempt to connect to the host.You will see:

```
Trying  XXX.XXX.XXX.XXX
Connected to XXX.XXX.XXX.XXX
Escape character is '^]'

Telnet Console on
Type "S" to see current status
Type "!" to enter monitor
```

TYPE: s [ENTER]

```
TCP socket job active on port from host 13.231.30.3

status: busy; source: AppSocket

TCP/IP job finished
```

Remote 49XX NIC Configuration:

To remotely configure the 49XX using Telnet, you can enter "maintenance mode" by typing "!" at the Telnet console.

Note: You can get help while in maintenance mode by typing "h" at the maintenance mode main menu.

Note: You MUST reset the NIC in the printer after going into maintenance mode. You can do this in Telnet by using the R option.

Maintenance mode example:

The following is an example of entering "maintenance mode" :

At the Command prompt TYPE: telnet XXX.XXX.XXX.XXX 2002 [ENTER]

The system will attempt to connect to the host. You will see:

```
Trying  XXX.XXX.XXX.XXX
Connected to XXX.XXX.XXX.XXX
Escape character is '^]'

Telnet Console on
Type "S" to see current status
Type "!" to enter monitor
```

TYPE: ! [ENTER]

```
Warning:  entering the monitor will lock out other Ethernet
access.
Type "yes" to continue.
```

TYPE: yes [ENTER]

```
Ready for command...
Command [D,E,I,L,N,R,Z] -->
```

Maintenance mode with HELP example:

The following is an example of entering "maintenance mode", then getting help :

At the Command prompt TYPE: telnet XXX.XXX.XXX.XXX 2002 [ENTER]

The system will attempt to connect to the host.You will see:

```
Trying  XXX.XXX.XXX.XXX
Connected to XXX.XXX.XXX.XXX
Escape character is '^]'

Telnet Console on
Type "S" to see current status
Type "!" to enter monitor
```

TYPE: ! [ENTER]

Warning: entering the monitor will lock out other Ethernet access.
Type "yes" to continue.

TYPE: yes [ENTER]

```
Ready for command...
Command [D,E,I,L,N,R,Z] -->h

-- Available options ---
C  Configure console for status monitoring
D  Display  network interface settings
E  Set Ethernet options
I  Set IP number
L  Limit Access by IP number
N  Set Network Protocol options
R  Reset Printer
Z  Reset network card settings to factory defaults
Command [D,E,I,L,N,C,R,Z]  -->
```

Telnet Menu System (exploded):

```
Ready for command...
Command [D,E,I,L,N,R,Z] -->h

-- Available options ---
C  Configure console for status monitoring
D  Display  network interface settings
E  Set Ethernet options
I  Set IP number
L  Limit Access by IP number
N  Set Network Protocol options
R  Reset Printer
Z  Reset network card settings to factory defaults
Command [D,E,I,L,N,C,R,Z]  -->
```

C Configure console (for status monitoring)
      Config console for status monitoring
         1 (No)
         2 (Yes)
D Display network interface settings
E Set Ethernet options
      Ethernet connector autoselect override
         1 (BNC)
         2 (RJ45)
         3 (Do not override)
      Telnet Security
         1 (Off)
         2 (On/New Password)
         3 (No Change)
I Set IP number
L Limit Access by IP number
      IP security currently (disabled/enabled)
      IP security option
         1 (Delete entry)
         2 (Add address)
         3 (Add subnet)
         4 (Done)
N Set Network Protocol options
      Network Protocols Menu
      A Set Apple EtherTalk options
         Disable EtherTalk?, yes or no (y or n)?: (y/n)
      L Set LPD (remote printer queues) options
         Disable LPD (remote printer queues)?, yes or no (y or n)?: (y/n)
         Print banner pages
            1 (No)
            2 (Yes)
            3 (Don't change)
      N Set Netware options
         Disable Netware?, yes or no (y or n)?: (y/n)
         Set Ethernet Type (Ethernet II, 802.3, 802.2, SNAP)
            1 (No)
            2 (Yes)
         Set Novell queue scan interval
            1 (No)
            2 (Yes)

Set primary NetWare server
     1 (No)
     2 (Yes)
Set Novell broadcast name
     1 (No)
     2 (Yes)
P Set PC Network (Netbeui) options
     Disable PC Network (Netbios)?, yes or no (y or n)?:y(/n)
     Set PC network (Netbeui) Group
       1 (No)
       2 (Yes)
     Set PC network (Netbeui) Name
       1 (No)
       2 (Yes)
     Set PC network (Netbeui) Service
       1 (No)
       2 (Yes)
     Set PC network (Netbeui) Description
       1 (No)
       2 (Yes)
     Set PC network (Netbeui) Password
       1 (No)
       2 (Yes)
T Set TCP Sockets options
     Disable TCP Sockets (fpfilter)?, yes or no (y or n)?:y(/n)
R Reset Printer
Z Reset network card settings to factory defaults

PC (WIndows) and MAC XPrint Printer Services

PC (WIndows) XPrint Printer Services

Full information is available for the administration of XPrint printers under Windows in the System Administration Guide supplied with your XPrint printer.

If your XPrint printer is equipped with a Network Interface card (NIC), additional information on network-specific administration tasks is available in the Network Interface Guide supplied either with your printer or with your network interface card.

MAC XPrint Printer Services

Full information is available for the administration of XPrint printers under MAC / OS in the System Administration Guide supplied with your XPrint printer.

If your XPrint printer is equipped with a Network Interface card (NIC), additional information on network-specific administration tasks is available in the Network Interface Guide supplied either with your printer or with your network interface card.

14 Troubleshooting

TCP/IP communication problems

1. Verify that the 49XX is turned on and connected to a functioning network port. Check the 49XX NIC LEDs for activity.

2. At a command line prompt, use the ping xxx.xxx.xxx.xxx command (xxx.xxx.xxx.xxx is the IP address of the 49XX printer). Try pinging the 49XX using its hostname. If ping is successful with the 49XX's TCP/IP address, then you have a local workstation or NIS configuration problem. Add the 49XX printer hostname to your local hosts file or NIS database (which ever applies) and retry the communications test. If the above fails, then continue with step 3.

3. Try to ping other TCP/IP nodes on your network. Try pinging the 49XX from another workstation. If all of the above fails, you have a configuration problem at your local workstation. You may also have a network problem.

4. If you suspect that the cause of the communications problem is the 49XX printer, print out a Printer Setting page at the 49XX control panel and view the 49XX TCP/IP parameters. See Appendix A.

    If Dynamic IP Addressing is enabled. Try "hard coding" the 49XX IP address at the control panel. Reset the printer, and check for connectivity again with the ping command.

    If Dynamic IP Addressing is disabled. Verify the following settings on the Printer Settings page with your local TCP/IP address administrator. This person should be able to verify the correctness of the settings:

    IP address
    Subnet Mask
    Default Gateway

NOTE: Any one of these important TCP/IP parameters (if set incorrectly) can cause TCP/IP communication problems.

NOTE: Subnet Mask and Default Gateway are critical on multi network segment LAN/WAN's.

NOTE: If you make any TCP/IP configuration changes, then the 49XX printer must be reset for those changes to take effect.

5. If all of the above troubleshooting fails, you may have a malfunctioning NIC. Try a Factory Reset at the 49XX control panel. Hard code IP address, Subnet mask, and default Gateway at the 49XX printer. Reset the printer. Try "pinging" the 49XX again. If the problem persists, call Xerox Technical Support for further instructions.

XPrint 49XX PostScript Print Tool printing problems:

1. Verify that the 49XX is switched on and connected to a functioning network por Check the 49XX NIC LEDs for activity.

2. At any workstation command line prompt, use the ping hostname command (where hostname is the hostname of the 49XX printer as it appears in your local /etc/hosts file or your NIS domains hosts database.) If the ping command returns a time-out or failure in either case, then you have a communication problem with the 49XX printer NIC. Go to the TCP/IP communication problems section and continue your diagnostics there.

3. If you are using indirect spooling to print to the 49XX, verify that the remote workstation is up and running and can communicate with the 49XX NIC. ie: ping the remote workstation.

4. If you are spooling directly to the 49XX, verify that you can communicate with the 49XX. Again use the ping command.

5. If the communications test is successful, then you may have a configuration problem at the 49XX. Verify that APPSOCKET is enabled on the 49XX. The default setting is YES.

6. If everything still looks OK, try stopping and restarting the XPrint spooling daemon. See Chapter 14

7. Use the setup49XX installation tool to remove and reinstall a new printer.
8. If the problem still exists, call Xerox Technical Support for further instructions.

lpr and lp (NON XPrint) printing problems

1. Verify that the 49XX is switched on and connected to a functioning network port. Check the 49XX NIC LEDs for activity.

2. At any workstation command line prompt, use the ping hostname command (where hostname is the hostname of the 49XX printer as it appears in your local /etc/hosts file or your NIS domains hosts database.) If the ping command returns a time-out or failure in either case, then you have a communication problem with the 49XX printer NIC. Go to the TCP/IP communication problems section and continue your diagnostics there.

3. If you are using indirect spooling to print to the 49XX, verify that the remote workstation is up and running and can communicate with the 49XX NIC.

4. If you are spooling directly to the 49XX, verify that you can communicate with the 49XX. Again use the ping command.

5. If the communications test is successful, then you may have a configuration problem at the 49XX. Verify that LPD is enabled on the 49XX. The default setting is YES

6. If all of the above is successful, then you may have a configuration problem at your local workstation. Check your configuration with the installation and configuration instructions in Chapter 4 and verify that your XPrint printer is installed in your environment in the manner you desire. (i.e., spooled, parallel connected, print server)

7. If the problem still exists, call Xerox Technical Support for further instructions.

15 APPENDICES

Appendix A Obtaining current XPrint PRINT SETTINGS

Obtain the XPrint settings by printing the PRINT SETTINGS page. The default settings enable all ports and this is suitable for most applications. To print the PRINT SETTINGS page:

FROM THE PRINTER'S CONTROL PANEL

1. Press On Line on the Control Panel Verify that the LED to the left of the button is OUT.

2. Press Menu . The ON-LINE message disappears and TOP MENU is displayed.

3. Press Up+ until **<PRINT>** appears on the Display Panel and then press Enter.

4. Press Up+ until **<PRINT SETTINGS>** is displayed. Press Enter.

5. Press Up+ until **<YES>** is displayed. Press Enter. The Print Settings page is printed.

6. If you change any settings, print another Print Settings page to verify that the changes were made as desired.

7. Press On Line. Verify the LED to the left of the button goes ON.

Appendix B Setting the IP address with the Control Panel

1 2 3 ...

1. Press On Line button on the Control Panel Be sure the light next to it is OFF

2. Press Menu . The ON-LINE message disappears and TOP MENU is displayed.

3. Press **Up+** until **<COMMUNICATIONS>** appears on the Display Panel and then press Enter.

4. Press **Up+** until **<NETWORK SETUP>** is displayed and then press Enter.

5. Press **Up+** until **<TCP/IP>** is displayed and then press Enter.

6. Press Enter while **<IP ADDRESS>** is displayed.

7. Press Enter while **<DYNAMIC>** is displayed.

8. Press **Up+** until **<NO>** is displayed and then press Enter.

9. Press Enter while **<SET IP ADDRESS>** is displayed.

10. Press **Up+** to increase the digit value. Press Down- to decrease the digit value. When each digit is correct, press Next button to move on to the next digit.

11. The Next button wraps around the display without setting the value if an error is made. After the complete IP address is displayed correctly, press Enter. The IP address is now set

12. Reset Printer to have new settings take effect.

Appendix C Setting up APPSOCKET

1₂ 3 ...

1. Press On Line on the Control Panel Verify the LED to the left of the button is OUT.

2. Press Menu . The ON-LINE message will disappear and TOP MENU should be displayed.

3. Press Up+ until **<COMMUNICATIONS>** appears on the Display Panel and then press Enter.

   The APPSOCKET default settings are:

   <APPSOCKET> = <ENABLE> = <YES>

   <MODE> = <AUTOSELECT>

NOTE: The Mode options are not applicable for APPSOCKET. The setting should always remain at AutoSelect

   To change the settings, follow these steps:

4. Press Up+ until **<NETWORK SETUP>** is displayed and then press Enter.

5. Press Up+ until **<TCP/IP>** is displayed and then press Enter.

6. Press Up+ until **<APPSOCKET>** is displayed and then press Enter.

7. Press Enter while **<ENABLE>** is displayed.

   To enable APPSOCKET press Enter while **<YES>** is displayed.

   To disable APPSOCKET press Up+ until **<NO>** is displayed and then press Enter.

8. Press On Line . Verify the LED to the left of this button switches ON.

Appendix D Setting a SUBNET MASK at the Control Panel

1. Press On Line button on the Control Panel Be sure the light next to it is OFF

1 2 3 ...

2. Press Menu . The ON-LINE message disappears and TOP MENU is displayed.

3. Press **Up+** until **<COMMUNICATIONS>** appears on the Display Panel and then press Enter.

4. Press **Up+** until **<NETWORK SETUP>** is displayed and then press Enter.

5. Press **Up+** until **<TCP/IP>** is displayed and then press Enter.

6. Press **Up+** until **<NET MASK>** is displayed and then press Enter.

7. To set each digit of the subnet mask, press **Up+** to increase the digit value. Press Down- to decrease the digit value. When each digit is correct, press Next button to move on to the next digit.

8. The Next button wraps around the display without setting the value if an error is made. After the complete IP address is displayed correctly, press Enter. The IP address is now set.

9. Reset Printer to have the new settings take effect.

Appendix E Setting DEFAULT GATEWAY at the Control Panel

1 2 3 ...

1. Press On Line button on the Control Panel. Be sure the light next to it is OFF.

2. Press Menu. The ON-LINE message disappears and TOP MENU is displayed.

3. Press **Up+** until **<COMMUNICATIONS>** appears on the Display Panel and then press Enter.

4. Press **Up+** until **<NETWORK SETUP>** is displayed and then press Enter.

5. Press **Up+** until **<TCP/IP>** is displayed and then press Enter.

6. Press **Up+** until **<GATEWAY>** is displayed and then press Enter.

7. To set each digit of the subnet mask, press **Up+** to increase the digit value. Press Down- to decrease the digit value. When each digit is correct, press Next button to move on to the next digit.

8. The Next button wraps around the display without setting the value if an error is made. After the complete IP address is displayed correctly, press Enter. The Default Gateway address is now set.

9. Reset Printer to have the new settings take effect.

Appendix F XPrint UNIX Command Line Utilities

XPQ

Overview

This utility is an equivalent utility to the UNIX lp command. It allows the user to view the current job list for XPrint print queues. This program executes and continues to run and update the screen until you exit by typing ^C (Control key + C)

XPQ can be used by any user to monitor print jobs.

Usage

xpq [print_queue_name] [interval]

Where:

[print_queue_name] = XPrint queue name to monitor

[interval] = Desired time between screen updates (in seconds)

XPRM

Overview

This utility is an equivalent to the UNIX lprm command. It allows the user to delete jobs currently in an XPrint job queue. Before using lprm, run the XPrint utility lpq for the desired queue and note the job number of the print job you want to delete.

XPRM can be used by the ROOT user to delete ANY print jobs.

XPRM can be used by any user to delete ONLY their print jobs.

Usage

xprm [print_queue_name] [job_number]

Where:

[print_queue_name] = XPrint queue name containing print job to delete

[job_number] = Job number of the print job to delete

XPMV

Overview

This utility allows the user to move jobs between XPrint print queues.

Before using lpmv, run the XPrint utility lpq for the desired queue and note the job number of the print job you want to move. You will also need the XPrint queue names for both the source and destination queues.

XPMV can be used by the ROOT user to administer ALL print jobs.

XPMV can be used by any user to administer ONLY their print jobs.

Usage

xpmv [source_queue_name] [dest_queue_name] [job_number]

Where:

[source_queue_name] = Queue where the print job to be moved exists.

[dest_queue_name] = Queue where the print job will be placed.

[job_number] = Job number to be moved (separate multiple job numbers with spaces)

The command above will move a specific print job from the source queue to the destination queue.

Alternative options:

xpmv [source_queue_name] [dest_queue_name] [-]

[-] = Hyphen enables ALL jobs in the XPrint queue to be moved

xpmv [source_queue_name] [dest_queue_name] [-] [username]

[-] [username] = will move ALL jobs submitted by a specific user to be moved