

6 Networking

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Connections and Internet Protocol (TCP/IP)

This section includes:

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This section includes connecting the multifunction system to the network via Ethernet or USB, then configuring the system's TCP/IP or AppleTalk/EtherTalk address for the particular network and operating system.

Overview of Network Setup and Configuration

Network connection and configuration steps are performed in the following order.

1. Turn the system and the computer **On**.
2. Connect the system to the network using the recommended hardware and cables.
3. Configure the system's network address, which is required to identify the system on the network. Run the Installer on the *WorkCentre C2424 Software CD-ROM* to automatically set the system's IP address, if the system is connected to an established TCP/IP network.

If you do not want to run the Installer to automatically set the IP address, you can do one of the following:

- For Windows operating systems, use TCP/IP to manually set the multifunction system's IP address.
 - For Macintosh, use TCP/IP or AppleTalk/EtherTalk to set the system's network address.
4. Install the driver software on the computer from the *WorkCentre C2424 Software CD-ROM*. For information on driver installation, see the section in this chapter for the specific operating system you are using.

Note

If the *WorkCentre C2424 Software CD-ROM* is not available, you can download the latest driver from www.xerox.com/office/drivers.

Choosing a Connection Method

You can connect the system to the network via Ethernet or USB. Hardware and cabling requirements vary for the different connection methods. Cabling and hardware listed below are generally not included with your system and must be purchased separately.

Ethernet

Ethernet can be used for one or more computers. It supports many printers and systems on an Ethernet network.

USB

If you are connecting to one computer, a USB connection offers fast data speeds. However, a USB connection is not as fast as an Ethernet connection. To use USB, PC users must have Microsoft Windows 98 SP2, SE, Windows Me, Windows XP or Windows 2000. Macintosh users must use OS 9.x or later.

Connecting via Ethernet (Recommended)

An Ethernet connection is recommended because it is faster than a USB connection. It also allows the user direct access to CentreWare Internet Services (IS). CentreWare IS provides a simple interface that enables you to manage, configure, and monitor networked systems from your desktop using an embedded web server. For complete information about CentreWare IS, click the **Help** button in CentreWare IS to go to the *CentreWare IS Online Help*.

Network Connection

Depending on your particular setup, the following hardware and cabling is required for Ethernet.

- If you are connecting to one computer, an Ethernet “crossover” RJ-45 cable is required.
- If you are connecting to one or more computers with a hub, an Ethernet hub and two twisted-pair (category 5/RJ-45) cables are required.
- If you are connecting to one or more computers using a cable or DSL router, a cable or DSL router and two or more twisted-pair (category 5/RJ-45) cables are required. (One cable for each device.)

If you are connecting to one or more computers with a hub, connect the computer to the hub with one cable, then connect the system to the hub with the second cable. Connect to any port on the hub except the uplink port.

TCP/IP and EtherTalk are the most common protocols used with Ethernet. To print using TCP/IP, each computer and system requires a unique IP address. For more information, see "Configuring the Network Address" on page 6-5.

Standalone (Cable or DSL) Network Connection

For information about setting up a cable or DSL connection for your system, go to the table of [infoSMART Knowledge Base documents](#) at the end of this section.

Connecting via USB

A USB connection requires a standard A/B USB cable. This cable is not included with your system and must be purchased separately. Verify that you are using the correct USB cable for your connection.

Windows 98 or Later and Windows 2000 or Later

1. Connect the USB cable to the system and turn it **On**.
2. Connect the USB cable to the PC and follow the **Add New Hardware Wizard** to create the USB port.
3. Follow the **Add Printer Wizard** to install the driver from the *WorkCentre C2424 Software CD-ROM*.

For more information, go to the table of [infoSMART Knowledge Base documents](#) at the end of this section.

Macintosh OS 9.x

A USB-connected system does not display in the Chooser.

1. Install the driver from the *WorkCentre C2424 Software CD-ROM*.
2. Use the **Desktop Printer Utility** to create a desktop USB system. The utility is located in the **PhaserTools** folder which is created during the software installation.

For more information, go to the table of [infoSMART Knowledge Base documents](#) at the end of this section.

Macintosh OS X (10.1 and Higher)

1. Install the driver from the *WorkCentre C2424 Software CD-ROM*.
2. Open the **Print Center** utility. In Macintosh OS X, version 10.3 or higher, the utility is called **Printer Setup**. To locate utilities on the Macintosh hard drive, open the **Applications** folder, then open the **Utilities** folder.
3. Click the **Add** button.
4. Select **USB** from the top drop-down list.
5. Select the system in the printers window.
6. Verify that your system is set to **Auto Select**.
7. Click the **Add** button.

The system is displayed as an available printer in the **Print Center/Printer Setup**. For more information, go to the table of [infoSMART Knowledge Base documents](#) at the end of this section.

Configuring the Network Address

TCP/IP and IP Addresses

If your computer is on a large network, contact your network administrator for the appropriate TCP/IP addresses and additional configuration information.

If you are creating your own small Local Area Network or connecting the system directly to your computer using Ethernet, follow the procedure for automatically setting the system's Internet Protocol (IP) address.

PCs and systems primarily use TCP/IP protocols to communicate over an Ethernet network. With TCP/IP protocols, each system and computer must have a unique IP address. It is important that the addresses are similar, but not the same; only the last digit needs to be different. For example, your system can have the address 192.168.1.2 while your computer has the address 192.168.1.3. Another device can have the address 192.168.1.4.

Generally, Macintosh computers use the EtherTalk protocol to talk to a networked system. Unlike TCP/IP, EtherTalk does not require systems or computers to have IP addresses.

Many networks have a Dynamic Host Configuration Protocol (DHCP) server. A DHCP server automatically programs an IP address into every PC and system on the network that is configured to use DHCP. A DHCP server is built into most cable and DSL routers. If you use a cable or DSL router, see your router's documentation for information on IP addressing.

For more information, go to the table of [infoSMART Knowledge Base documents](#) at the end of this section.

Automatically Setting the System's IP Address

If the system is connected to a small established TCP/IP network without a DHCP server, use the Installer on the *WorkCentre C2424 Software CD-ROM* to detect or assign an IP address to the system. For further instructions, insert the software CD-ROM into your computer's CD-ROM drive. After the Installer launches, follow the prompts for installation.

Note

For the automatic Installer to function, the system must be connected to an established TCP/IP network.

Dynamic Methods of Setting the System's IP Address

You can set the system's IP address using any of the following methods.

- DHCP
- CentreWare IS
- AutoIP

Information Required for Manual IP Addressing

Information	Comments
Internet Protocol (IP) address of the system	Format is <i>xxx.xxx.xxx.xxx</i> , where <i>xxx</i> represents a decimal number from 0–255.
Network Mask	If you are unsure, leave this blank; the system chooses an appropriate mask.
Default Router/Gateway address	Router address is required to communicate with the host device from anywhere other than the local network segment.

Enabling DHCP on the System

Verify that the system DHCP protocol is enabled by setting the control panel or by using CentreWare IS.

Note

To determine the system's IP address, select **System Identification** at the control panel. For information about the control panel, see the Features section of this guide.

Changing or Modifying the IP Address Using CentreWare IS

CentreWare IS provides a simple interface that enables you to manage, configure, and monitor networked systems from your desktop using an embedded web server. For complete information about CentreWare IS, click the **Help** button in CentreWare IS to go to the *CentreWare IS Online Help*.

After setting the system's IP address, you can modify TCP/IP settings using CentreWare IS.

1. Launch your web browser.
2. Enter the system's IP address in the browser's **Address** field (<http://xxx.xxx.xxx.xxx>).
3. Select **Properties**.
4. Select the **Protocols** folder on the left sidebar.
5. Select **TCP/IP**.
6. Enter or modify the settings, then click **Save Changes** at the bottom of the page.

Using Host Names with the Domain Name Service (DNS)

The system supports DNS through an embedded DNS resolver. The DNS resolver protocol communicates with one or more DNS servers to resolve the IP address for a given host name or the host name for a given IP address.

To use an IP host name for the system, the system administrator must configure one or more DNS servers and a local DNS domain name space database. To set up the system for DNS, supply a maximum of two DNS name server IP addresses.

Dynamic Domain Name Service (DDNS)

The system supports Dynamic DNS through DHCP. You must have DHCP enabled on the system for DDNS to function. Your network's DHCP server must also support Dynamic DNS updates through option 12 or option 81 support. See your network administrator for details.

1. Launch your web browser.
2. Enter the system's IP address in the browser's **Address** field (<http://xxx.xxx.xxx.xxx>).
3. Select **Properties**.
4. Select the **Protocols** folder on the left sidebar.
5. Select **TCP/IP**.
6. In the BOOTP/DHCP Settings section, set the **BOOTP/DHCP** option to **ON**.
7. To enable DDNS, enter the following DDNS/WINS settings information:
 - **DDNS** - Set to **ON**.
 - **Release Host Name** - Set to **NO**.
 - **DDNS/WINS Name** - Use the default name provided by Xerox or enter another name.
 - **Primary WINS Server** (optional)
 - **Secondary WINS Server** (optional)
8. Click **Save Changes** when you are finished entering the settings.

Manually Setting the System's IP Address

Ensure that your computer has a properly configured IP address for your network. Contact your network administrator for more information.

If you are on a network without a DNS server, or in an environment where the network administrator assigns system IP addresses, you can use this method to manually set the IP address. Manually setting the IP address overrides DHCP and AutoIP. Alternatively, if you are in a small office with a single PC and use a dialup modem connection, you can manually set the IP address.

1. On the control panel, press the **System Setup** button.
2. Select **Connection Setup**, then press the **Enter** button.
3. Select **Network Setup**, then press the **Enter** button.
4. Select **TCP/IP Setup**, then press the **Enter** button.
5. Select **DHCP/BOOTP**, then press the **Enter** button until the control panel displays **Off**.
6. Select **TCP/IP Address**, then press the **Enter** button.
7. Enter the system's IP address, then press the **Enter** button.

infoSMART Knowledge Base Documents (English only)

For more information, go to www.xerox.com/office/c2424infoSMART to view these documents.

Reference Name	Title
R1002033188	Basic TCP/IP Tutorial and Home Networking Guidelines
R1016024951	Installing the Printer Driver in Windows 9x When Using a USB Connection
R1016021735	Installing the Printer Driver in Windows 2000 When Using a USB Connection
R1016021287	Installing the Printer Driver in Windows XP When Using a USB Connection
R1016022563	Installing the Printer for a USB Connection in Mac OS 9
R1016022417	Installing the Printer for a USB Connection in Mac OS X 10.3.1 (and later)
R1002018545	Understanding TCP/IP Addressing and Subnetting Basics

Device Management Software

This section includes:

- "Using CentreWare Software" on page 6-9
- "Using Device Management Features" on page 6-11

Using CentreWare Software

CentreWare Internet Services (IS)

CentreWare IS provides a simple interface that allows you to manage, configure, and monitor networked systems from your desktop using an embedded web server. CentreWare IS gives administrators easy access to system status, configuration, and diagnostic functions. It also provides users with access to system status and special printing functions such as printing saved jobs. With CentreWare IS software, you can access and manage your systems over a TCP/IP network using a web browser.

CentreWare IS enables you to:

- Check supplies status from your desktop, saving a trip to the system. Access job accounting records to allocate printing costs and plan supplies purchases.
- Define a network multifunction system search and view a list of systems using Printer Neighborhood. The list provides current status information and allows you to manage devices independent of network servers and operating systems.
- Configure systems from your desktop. CentreWare IS makes it easy to copy settings from one system to another.
- Set up and use a simple web browser based printing system. Marketing collateral, sales materials, business forms, or other standardized, frequently used documents can be saved as a group with their original driver settings then reprinted on demand at high speed from any user's browser. A system with a hard drive is required to support these functions. In some system models, a DX configuration is required to support these functions.
- Troubleshoot print-quality problems using built-in diagnostics.
- Define a link to your local web server's support page.
- Access online manuals and technical support information located on the Xerox web site.

Note

CentreWare IS requires a web browser and a TCP/IP connection between the system and the network (in Windows, Macintosh, or UNIX environments). TCP/IP and HTTP must be enabled in the system. JavaScript is required to access the pages in Printer Neighborhood. If JavaScript is disabled, a warning message appears and the pages do not function properly.

For complete information about CentreWare IS, click the **Help** button in CentreWare IS to go to the *CentreWare IS Online Help*.

CentreWare DP for NetWare

CentreWare DP is easy-to-use system management software that runs on Windows 98 or later and Windows 2000 or later. Through point-and-click navigation you can install, connect, and configure systems quickly and easily on a network. It provides network administrators with setup procedures and management of networked systems.

The following table lists CentreWare DP key features and benefits.

Feature	Benefit
Setup Wizard	Provides a step-by-step guide to install your system on the network.
Advanced Setup	Provides a tool to service multiple file servers and queues.
Instant Status	Enables you to select a system from the Printer List to monitor the system at any given time.
Remote Configuration and Management	Enables you to do most configuration and monitoring tasks from your workstation.
Upgrades	Enables you to upgrade your system from your workstation (if available for your system model).

For more information, go to www.xerox.com/office/pmtools, and select your specific system model to view the *CentreWare DP User Guide*.

CentreWare MC (Microsoft Management Console)

CentreWare MC allows IP discovery of systems equipped with an embedded web server. The embedded web server in Xerox systems is called CentreWare Internet Services.

For installing or managing multiple systems on a Windows NT 4.x (Service Pack 6 or higher), Windows 2000, or Windows XP network with the TCP/IP protocol enabled, use the Xerox CentreWare MC snap-in to Microsoft Management Console. For more information, go to www.xerox.com/office/pmtools, and select your specific system model to view the *CentreWare MC User Guide*.

CentreWare Web

CentreWare Web is a multi-vendor system management, installation, and troubleshooting application. Use CentreWare Web to remotely manage, install, and troubleshoot systems on your network using a web browser. Systems are found through network or print server discovery and managed over TCP/IP networks using RFC-1759 SNMP (Simple Network Management Protocol).

With CentreWare Web you can:

- Remotely add ports, queues, and drivers to Windows 2000, XP, and NT4.x SP6 print servers.
- Install, troubleshoot, upgrade, and clone wizards to aid all users in performing administrative tasks.
- Install CentreWare Web on a server for availability to all clients on the network with Internet access.

- Support multiple users and provide different levels of user access privileges for administrators or guests.
- Discover printers on local and remote subnets.
- Automatically discover systems as scheduled.
- Generate reports.
- Connect to system web servers for additional system-specific features, including help.

For more information, go to www.xerox.com/office/pmtools, and select your specific system model to view the *CentreWare Web User Guide*.

Using Device Management Features

Job Accounting

Job accounting is available through CentreWare IS and CentreWare Web.

The system stores information about print jobs in a log file. The log file is stored either in the device's memory or on an optional hard disk if one is installed in the system. If the log file is stored in the device's memory, it is lost when the system is reset. It is recommended that a hard disk be used for job accounting.

The log file lists job records. Each record contains fields such as user name, job name, pages printed, job times, and toner or ink used. Not all fields are supported by all systems. For more information, go to the *CentreWare IS Online Help* or *CentreWare Web Online Help*.

The job accounting values reported vary depending on the protocol and print command used when each job was printed. For example, using NPRINT over NetWare provides the system with the most information about the job being printed. When using Windows and NetWare, the job name is often LST: or LST:BANNER. Other jobs from other ports may provide less information about the job.

Using CentreWare IS

1. Launch your web browser.
2. Enter the system's IP address in the browser's **Address** field (<http://xxx.xxx.xxx.xxx>).
3. On the right side of the main CentreWare IS page, click **Jobs**.

The "Job Accounting Links" page provides links that enable you to browse, download, and clear job accounting records.

For complete information on CentreWare IS job accounting, including clearing job information, downloading job information to a file, and job accounting file formats, click the **Help** button in CentreWare IS to go to the *CentreWare IS Online Help*.

MaiLinX Alerts

MaiLinX alerts allow the system to automatically send email to the system administrator and others under the following conditions:

- When system errors, warnings, and alerts occur.
- When the system requires attention (for example, when service is required or supplies need to be replenished).
- When a reply to a CentreWare IS Remote Internet Printing message is desired. For more information about CentreWare IS Remote Internet printing, click the **Help** button in CentreWare IS to go to *CentreWare IS Online Help*.

Three designated users can receive messages:

- SysAdmin
- Service
- Key

System messages reporting errors, alerts, and warnings can be individually assigned to any of these users. You can customize the message text and the subject line in the Status Notification messages. Status Notification is supplied by the device's Simple Mail Transport Protocol (SMTP) client.

Setting Up CentreWare IS Status Notification

1. Launch your web browser.
2. Enter the system's IP address in the browser's **Address** field (<http://xxx.xxx.xxx.xxx>).
3. Select **Properties**.
4. Select **Mail Alerts** on the left sidebar. Follow the instructions on the page to select mail alert options.
5. Click **Save Changes**.

For complete information about CentreWare IS Status Notification, click the **Help** button in CentreWare IS to go to *CentreWare IS Online Help*.

Usage Profile Reports

The system generates reports accessible through CentreWare IS that detail device usage. Usage profile reports track multiple items, including:

- System information, such as system name, date installed, total pages printed, options installed, and network ID.
- Supplies usage data, such as toner or ink. By tracking supplies usage, you can order supplies before they reach their end of life.
- Media and tray information, such as how often prints are made on paper compared to transparencies, and how often each tray is used.
- Job characteristics, such as size and timing of jobs.

Setting Up Usage Profile Reporting

1. Launch your web browser.
2. Enter the system's IP address in the browser's **Address** field (<http://xxx.xxx.xxx.xxx>).
3. Select **Jobs**.
4. Select **Usage Profile Reports** on the left sidebar.
5. Click the **Usage Profile Properties** link. Follow the instructions on the page to set up reports.
6. Click **Save Changes**.

For complete information about Usage Profile reporting, including descriptions of each field in the report, click the **Help** button in CentreWare IS to go to *CentreWare IS Online Help*.

Using CentreWare IS

Note

To send usage profile reports using email, the MaiLinX must be properly set up using "MaiLinX Alerts" on page 6-12.

1. Enter the system's IP address in your browser's **Address** field (<http://xxx.xxx.xxx.xxx>).
2. Select **Jobs**.
3. Select **Usage Profile Reports** on the left sidebar.
4. Enter the desired email address in the **Send to Specific Address** field.
5. Click **Send Usage Profile Report**.

Xerox Usage Analysis Tool

The Xerox Usage Analysis Tool is a Windows client/server application that allows system administrators to automatically track Xerox system usage, and obtain job accounting records. The tool supports large networks with many users and systems. Job accounting and system usage data is stored in a database. The application can be run on multiple clients using a single server. The data can be exported to a spreadsheet for viewing, analysis, and billing.

Go to www.xerox.com/office/uat for complete information about using the Xerox Usage Analysis Tool provided by the application's online help system.

System Requirements

- IP network
- Xerox system with Ethernet interface (optional hard disk recommended)
- A PC with at least 32 MB of RAM. At least 1 GB of hard drive space recommended for the server
- Supported operating systems: Windows 98 or later and Windows 2000 or later
- Microsoft Excel 97 or Excel 2000 for export to spreadsheet (for graphing, billing, and data analysis)

Windows 2000, Windows XP, and Windows Server 2003

This section includes:

- "Preliminary Steps" on page 6-14
- "Quick CD-ROM Install Steps" on page 6-14
- "Other Methods of Installation" on page 6-15
- "Windows 2000, Windows XP, Windows Server 2003 Troubleshooting (TCP/IP)" on page 6-18
- "infoSMART Knowledge Base Documents (English only)" on page 6-19

Preliminary Steps

These preliminary steps must be performed for all copier-printer systems:

1. Verify that the system is plugged in, turned **On**, and connected to an active network.
2. Verify that the system is receiving network information by monitoring the LEDs on the back of the device or on the CentreDirect External Print Server. When the system is connected to a functioning network and receiving traffic, its link LED is green, and its amber traffic LED is flashing rapidly.
3. Proceed to "Quick CD-ROM Install Steps" or "Other Methods of Installation" for the installation method desired.
4. Print the "Configuration Page" and keep it for reference.

Quick CD-ROM Install Steps

1. Insert the *WorkCentre C2424 Software CD-ROM* into the computer's CD-ROM drive. If the installer does not launch, do the following:
 - a. Click **Start**, then click **Run**.
 - b. In the Run window, type: **<CD drive>:\INSTALL.EXE**.
2. Select your desired language from the list.
3. Select **Install Printer Driver**.
4. Click **I Agree** to accept the Xerox Software License Agreement.
5. In the Select Printer dialog box, the default **Use Walk-Up Technology (recommended for network printers)** is selected. Click **Next**.
6. Follow the **Use Walk-Up Technology** instructions displayed.
7. Click **Exit Program**.

Note

If the Walk-Up Technology dialog box remains onscreen after you have completed Steps 1–6, click the **Back** button, then click **Select from the following discovered printers**. Follow the onscreen prompts to complete the installation procedure.

For more information, go to the table of [infoSMART Knowledge Base documents](#) at the end of this section.

Other Methods of Installation

Your system can also be installed on a Windows 2000, Windows XP, or Windows Server 2003 network using one of these methods:

- Microsoft TCP/IP Protocol
- Microsoft IPP Port

The following methods can also be used to monitor or configure your system:

- A web browser using CentreWare IS if your system is connected to a Windows 2000, Windows XP, or Windows Server 2003 network with the TCP/IP protocol enabled.
- The Xerox CentreWare MC snap-in to Microsoft Management Console for installing or managing multiple systems on a Windows 2000, Windows XP, or Windows Server 2003 network with TCP/IP protocol enabled. See the *CentreWare MC User Guide* at www.xerox.com/office/pmtools.

Note

The CentreWare methods are not discussed in this section. For more information concerning CentreWare IS, CentreWare DP, or CentreWare MC, see “Device Management Software” on page 9.

Microsoft TCP/IP Protocol

Note

For Windows XP, select Classic Look or the Windows XP procedures will not match the steps below. To select Classic Look, click **Start**, then **Settings**, then **Taskbar and Start Menu**. Select the **Start Menu** tab, then select the **Classic Start menu**. Click **OK**.

1. Right-click the **My Network Places** icon on the desktop, then click **Properties**.
2. Right-click **Local Area Connection**, then click **Properties**.
3. Click the **General** tab to verify that **Internet Protocol (TCP/IP)** is installed.
 - If the Internet Protocol (TCP/IP) box is checked, the software is installed.
 - If the Internet Protocol (TCP/IP) box is not checked, the software is not installed. Install TCP/IP software using the documentation provided by Microsoft, then return to this document.

Adding the System

1. On the desktop click **Start**, then click **Settings**.
2. Select one of these options:
 - For Windows 2000 click **Printers**, double-click **Add Printer** to launch the **Add Printer Wizard**, then click **Next**.
 - For Windows XP and Windows Server 2003, click **Printers and Faxes**. Double-click **Add Printer** to launch the **Add Printer Wizard**, then click **Next**.

3. Click the **Local Printer** button, then click **Next**.
4. Click the **Create a New Port** button.
5. Select **Standard TCP/IP Port** from the New Port Type pull-down menu, then click **Next**.
6. Click **Next**.
7. Click in the **Printer Name or IP Address** edit box and enter the IP Address of the copier-printer system you want to use. Click **Next**.
8. Select one of these options:
 - Click **Finish** in the **Confirmation** window if the data is correct.
 - Click the **Back** button to correct the data if incorrect, then click **Finish** in the **Confirmation** window when the data is correct.

Configuring the System

1. Insert the *WorkCentre C2424 Software CD-ROM* into the computer's CD-ROM drive and click **Have Disk**.
2. Click the **Browse** button, then select the directory which contains the Windows 2000 or Windows XP drivers.
3. Select the ***.INF** file, then click **Open**.
4. Verify that the path and filename are correct, then click **OK**.
5. Enter a name for the system and select whether you want that system to be the default printer. Click **Next**.
6. Select one of these options:
 - If the system is not shared, click **Next**.
 - If the system is shared, enter a **Share Name**, check the **Share** box, then click **Next**.

Printing a Test Page

You are prompted to print a test page.

1. Select one of these options:
 - Click **Yes** to print a test page, then click **Next**.
 - Click **No** if you do not want to print a test page, then click **Next**.
2. Select one of these options in the **Completing the Add Printer Wizard** screen:
 - Click the **Finish** button if the data presented is correct. Proceed to step 3.
 - Click the **Back** button to correct the data if incorrect, then click **Finish** in the **Add Printer Wizard** when the data is correct. Proceed to Step 3.
3. If you printed a test page, you are prompted to confirm that the test page printed:
 - Click **Yes** if the test page printed successfully.
 - Click **No** if the test page did not print or printed incorrectly. Proceed to step 4.
4. Note the print-quality of the print job. If print-quality problems exist, or if the job does not print, see the Troubleshooting section of this guide.

Microsoft IPP Port

Follow these steps to obtain the copier-printer system's URL and create an Internet Printing Protocol (IPP) printer.

Obtaining the System's URL (Network Path)

1. Launch your web browser.
2. Enter the system's IP address in the browser's **Address** field (<http://xxx.xxx.xxx.xxx>).
3. Select **Properties**.
4. Select the **Protocols** folder on the left sidebar.
5. Select **IPP**. The Network Path field on the IPP (Internet Printing Protocol) Settings page displays the system's URL.

Creating an IPP System

1. On the desktop, click **Start**, click **Settings**, then click **Printers**.
2. Double-click **Add Printer** to launch the Microsoft Add Printer Wizard.
3. Select **Network Printer**, then click **Next**.
4. When prompted for **Network Path** (Windows 9x) or **URL** (Windows NT, Windows 2000, Windows XP), enter the system's URL in the following format. Substitute your system's IP address or DNS name for *system-ip-address*.

http://system-ip-address/ipp

5. Click **Next**.

The system's URL is displayed on the CentreWare IS IPP page in the Network Path field.

Windows 2000, Windows XP, Windows Server 2003 Troubleshooting (TCP/IP)

Note

For Windows XP, select Classic Look or the Windows XP procedures will not match the steps below. To select Classic Look, click **Start**, then **Settings**, then **Taskbar and Start Menu**. Select the **Start Menu** tab, then select **Classic Start menu**. Click **OK**.

This troubleshooting section assumes you have completed the following tasks:

- Loaded a PCL or PostScript device driver.
- Printed and kept a current copy of the “Configuration Page”.

Printing the Configuration Page

You can print the “Configuration Page” to help you solve printing problems and obtain the best results from your system. To print the “Configuration Page”:

1. On the control panel, press the **System Setup** button.
2. Select **Information**, then press the **Enter** button.
3. Select **Information Pages**, then press the **Enter** button.
4. Select **Configuration Page**, then press the **Enter** button to print.

Note

Print the Menu Map to see other information pages available for printing.

Verifying Settings

1. Verify the settings on the “Configuration Page”.
 - **IP Address Source** is set to: **DHCP**, **Front Panel**, **BOOTP**, or **Auto IP** (depending on your network configuration).
 - **Current IP Address** is set correctly. (Note this address if it is assigned by Auto IP, DHCP, or BOOTP.)
 - **Subnet Mask** is set correctly (if used).
 - **Default Gateway** is set correctly (if used).
 - **LPR** is enabled. Verify that the LPR and AppSocket settings are set as desired.
 - **Interpreters: Auto, PCL, or PostScript** (depending on your driver).
2. Verify that the client is logged into the network and printing to the correct print queue. The user should also have access to the Phaser printer queue.

Verifying Driver Installation

1. Right-click **My Network Places** on the desktop, then click **Properties**.
2. Right-click **Local Area Connection**, then click **Properties**.
3. Click the **General** tab. View the list of installed network protocols to verify that TCP/IP is installed. (For more information, contact your network administrator.)
4. Click **Install** to install any components not listed, then restart your computer.

5. Click **Start**, click **Settings**, then click **Printers**.
6. Right-click the printer icon, then click **Properties**.
7. Click the **Advanced** tab. Verify that the correct printer driver is installed.
8. Click the **Ports** tab. Verify that the IP Address in the **Print to the Following Ports** list is identical to the one on the “Configuration Page.” You may need to click the **Configure Port** button to see the IP address. If necessary, re-select the TCP/IP number used for the printer.

Printing a Test Page

1. Click the **General** tab.
2. Click **Print Test Page**. If the system does not print, do one of the following:
 - Select **PhaserSMART Technical Support** on the **Troubleshooting** tab of your Windows printer driver to access PhaserSMART Technical Support.
 - Go to www.xerox.com/office/support.

infoSMART Knowledge Base Documents (English only)

For more information, go to www.xerox.com/office/c2424infoSMART to view these documents.

Reference Name	Title
R1016021251	Installing the Printer in Windows 2000 Using an Ethernet (TCP/IP) Connection

Windows NT 4.x

This section includes:

- "Preliminary Steps" on page 6-20
- "Quick CD-ROM Install Steps" on page 6-20
- "Other Methods of Installation" on page 6-21
- "Windows NT 4.x Troubleshooting (TCP/IP)" on page 6-22
- "infoSMART Knowledge Base Documents (English only)" on page 6-24

Preliminary Steps

These preliminary steps must be performed for all systems:

1. Verify that the system is plugged in, turned **On**, and connected to an active network.
2. Verify that the system is receiving network information by monitoring the LEDs on the back of the device or on the CentreDirect External Print Server. When the system is connected to a functioning network and receiving traffic, its link LED is green, and its amber traffic LED is flashing rapidly.
3. Proceed to "Quick CD-ROM Install Steps" or "Other Methods of Installation" for the installation method desired.
4. Print a "Configuration Page" and keep it for reference.

Quick CD-ROM Install Steps

1. Insert the *WorkCentre C2424 Software CD-ROM* into the computer's CD-ROM drive. If the installer does not launch, do the following:
 - a. Click **Start**, then click **Run**.
 - b. In the Run window, type: <CD drive>:\INSTALL.EXE.
2. Select your desired language from the list.
3. Select **Install Device Driver**.
4. Click **I Agree** to accept the Xerox Software License Agreement.
5. In the Select Device dialog box, the default **Use Walk-Up Technology (recommended for network systems)** is selected. Click **Next**.
6. Follow the **Use Walk-Up Technology** instructions displayed.
7. Click **Exit Program**.

Note

If the Walk-Up Technology dialog box remains onscreen after you have completed Steps 1–6, click the **Back** button, then click **Select from the following discovered printers**. Follow the onscreen prompts to complete the installation procedure.

For more information, go to the table of [infoSMART Knowledge Base documents](#) at the end of this section.

Other Methods of Installation

Install your system on a Windows NT network using the Microsoft TCP/IP Protocol.

The following methods can also be used to monitor or configure your system:

- A web browser using CentreWare IS if your system is connected to a Windows NT network with TCP/IP protocol enabled.
- The Xerox CentreWare MC snap-in to Microsoft Management Console for installing or managing multiple systems on a Windows NT network with TCP/IP protocol enabled. See the *CentreWare MC User Guide* at www.xerox.com/office/pmtools.

Note

The CentreWare methods are not discussed in this section. For more information about CentreWare IS or CentreWare MC, see "Device Management Software" on page 6-9.

Quick Install Steps (Microsoft TCP/IP Protocol)

Note

This procedure is only performed by the system administrator.

1. Right-click the **My Network Places** icon on the desktop, then click **Properties**.
2. Click the **Protocols** tab to verify that the TCP/IP protocol has been installed.
3. Select the **Services** tab and verify that Microsoft TCP/IP Printing software is installed. If it is not installed, install it, and then return to this document.

Adding the System

1. Open the **Control Panel**, then double-click the **Printers** icon.
2. Double-click **Add Printer** to launch the **Add Printer Wizard**, then click **Next**.
3. Verify that **My Computer** is selected, then click **Next**.
4. Click **Add Port**, then select the LPR Port from the list displayed.
5. Click **New Port**.
6. Enter the IP address of the system, and a name of 31 characters or less (no spaces).
7. Select **OK**.
8. Verify that the new IP address you entered is listed correctly. If the check box next to the IP address is not checked, select the check box, then click **Next**.

Configuring the System

1. Insert the *WorkCentre C2424 Software CD-ROM* into the computer's CD-ROM drive, then click **Have Disk**.
2. Click the **Browse** button and select the directory containing the Windows NT drivers.
3. Select the ***.INF** file, then click **Open**. Verify that the path and filename are correct, then click **OK**.
4. Select the correct system, then click **OK**.
5. Enter a name for the system, select whether you want that device to be the default, then click **OK**.

6. Select one of these options:
 - If the system is not shared, click **Next**.
 - If the system is shared, enter a Share Name, check the **Share** box, then click **Next**.

Printing a Test Page

You are prompted to print a test page.

1. Select one of these options:
 - Click **Yes** to print a test page, then click **Next**.
 - Click **No** if you do not want to print a test page, then click **Next**.
2. Select one of these options:
 - Click the **Finish** button if the data presented is correct. Proceed to step 3.
 - Click the **Back** button to correct the data if incorrect, then click **Finish** when the data is correct. Proceed to Step 3.
3. If you printed a test page, you are prompted to confirm that the test page printed:
 - Click **Yes** if the test page printed successfully.
 - Click **No** if the test page did not print or printed incorrectly. Proceed to step 4.
4. Note the print-quality of the print job. If print-quality problems exist or if the job does not print, see the Troubleshooting section of this guide.

Windows NT 4.x Troubleshooting (TCP/IP)

This troubleshooting section assumes you have completed the following tasks:

- Loaded a PCL or PostScript device driver.
- Printed and kept a current copy of the “Configuration Page”.

Printing the Configuration Page

You can print the “Configuration Page” to help you solve printing problems and obtain the best results from your system. To print the “Configuration Page”:

1. On the control panel, press the **System Setup** button.
2. Select **Information**, then press the **Enter** button.
3. Select **Information Pages**, then press the **Enter** button.
4. Select **Configuration Page**, then press the **Enter** button to print.

Note

Print the Menu Map to see other information pages available for printing.

Verifying Settings

1. Verify the settings in the “Configuration Page.”
 - **IP Address Source** is set to: **DHCP, Front Panel, BOOTP,** or **Auto IP** (depending on your network configuration).
 - **Current IP Address** is set correctly. (Note this address if it is assigned by Auto IP, DHCP, or BOOTP.)
 - **Subnet Mask** is set correctly (if used).
 - **Default Gateway** is set correctly (if used).
 - **LPR** is enabled. Verify that the LPR and AppSocket settings are set as desired.
 - **Interpreters: Auto, PCL, or PostScript** (depending on your driver).
2. Verify that the client is logged into the network and printing to the correct print queue. The user should also have access to the Phaser print queue.

Verifying Installation

1. Right-click the **My Network Places** icon on the desktop and select **Properties**.
2. Click the **Protocols** tab to verify that the TCP/IP protocol has been installed.
3. Click **Add** to install any components not listed, then restart your computer.
4. Click **Start**, click **Settings**, then click **Control Panel**.
5. Double-click **Services**.
6. Locate **TCP/IP Print Server**, then verify these column entries:
 - **Status** column: **Started**
 - **Startup** column: **Automatic**
7. Click **Start**, click **Settings**, then click **Printers**.
8. Right-click the printer icon, then select **Properties**. Verify that you have installed the correct driver for your system.
9. Select the **Ports** tab. Verify that the IP Address in the **Print to the Following Port** list is identical to the one on the “Configuration Page.” You may need to click the **Configure Port** button to view the IP address. If necessary, re-select the TCP/IP number used for your system.

Printing a Test Page

1. Click the **General** tab.
2. Click **Print Test Page**. If the system still does not print, do one of the following:
 - Access **PhaserSMART** Technical Support on the **Troubleshooting** tab of your device driver.
 - Go to www.xerox.com/office/support.

infoSMART Knowledge Base Documents (English only)

For more information, go to www.xerox.com/office/c2424infoSMART to view these documents.

Reference Name	Title
R1002011338	Installing a Windows NT 4.0 Printer Driver for Printing Over TCP/IP - LPR

Windows 98 and Windows Me

This section includes:

- "Preliminary Steps" on page 6-25
- "Quick CD-ROM Install Steps" on page 6-26
- "Other Methods of Installation" on page 6-26
- "Windows 98 and Windows Me Troubleshooting" on page 6-28
- "infoSMART Knowledge Base Documents (English only)" on page 6-30

Preliminary Steps

1. Verify that the system is plugged in, turned **On**, and connected to an active network.
2. Verify that the system is receiving network information by monitoring the LEDs on the back of the device or on the CentreDirect External Print Server. When the system is connected to a functioning network and receiving traffic, its link LED is green, and its amber traffic LED is flashing rapidly.
3. Print a "Configuration Page" and verify that the desired protocol is enabled, then follow one of these options:
 - Proceed to Step 4 if you do not have a TCP/IP address configured for your system.
 - Proceed to Step 5 if you do have a TCP/IP address configured for your system.
4. Do one of the following if you *do not* have a TCP/IP address configured for your computer:
 - Contact your system administrator to ensure that configuration is made according to your company guidelines.
 - Configure your PC with a unique address such as 192.1.1.1.
5. If you have a TCP/IP address, then follow these steps to verify the IP address for your PC:
 - a. Click **Start**, then click **Run**.
 - b. Enter **winiipcfg** in the **Open** field. (If the file is not found, TCP/IP may not be installed.)
 - c. Click **OK**.
 - d. Select your network adapter from the list. The IP address is listed in the IP Address field.

Note

For more information about installing and configuring TCP/IP in Windows environments, go to your Microsoft Windows documentation.

6. Proceed to "Quick CD-ROM Install Steps" or "Other Methods of Installation" for the installation method desired.

Quick CD-ROM Install Steps

1. Insert the *WorkCentre C2424 Software CD-ROM* into the computer's CD-ROM drive. If the installer does not launch, do the following:
 - a. Click **Start**, then click **Run**.
 - b. In the Run window, type: <CD drive>:\INSTALL.EXE.
2. Select your desired language from the list.
3. Select **Install Device Driver**.
4. Click **I Agree** to accept the Xerox Software License Agreement.
5. In the Select Printer dialog box, the default **Use Walk-Up Technology (recommended for network systems)** is selected. Click **Next**.
6. Follow the **Use Walk-Up Technology** instructions displayed.
7. Click **Exit Program**.

Note

If the Walk-Up Technology dialog box remains onscreen after you have completed Steps 1–6, click the **Back** button, then click **Select from the following discovered printers**. Follow the onscreen prompts to complete the installation procedure.

For more information, go to the table of [infoSMART Knowledge Base documents](#) at the end of this section.

Other Methods of Installation

Install your system on a Windows 98 or Windows Me network using one of these methods:

- Xerox TCP/IP Port Monitor
- PhaserPort Software

Xerox TCP/IP Port Monitor

The Windows installer installs the Xerox TCP/IP Port Monitor. The Xerox TCP/IP Port Monitor can be used to add or remove TCP/IP ports.

Adding a Port

1. Open **Printer Properties** for the system you would like to attach to the new TCP/IP port.
2. Click **Start**, click **Settings**, then click **Printers**.
3. Right-click the system to be attached to the new TCP/IP port, then click **Properties**.
4. Click the **Details** tab, then click the **Add Port** button.
5. Select **Other**.
6. From the list of available printer-port monitors, select the **Xerox TCP/IP Port**, then click **OK**.

Configuring a Port

The Xerox TCP/IP Printer Port Wizard guides you step-by-step through the following procedures:

- Choosing a name for the new port
 - Identifying a system by its DNS Name or IP Address
 - (Alternatively) Identifying a system using the automatic **Printer Discovery** feature
1. Click **Next** to proceed with the port installation. The wizard verifies the port name and system address, then automatically configures the remaining port settings. Any errors detected are displayed in a dialog box requesting Additional Information.
 2. In the **Add Xerox TCP/IP Port** window:
 - Enter a unique name for the port being added in the **Enter a Port Name** section.
 - Enter the system host name or IP Address in the **Enter a Printer Name or IP Address** section.
 3. Click **Next**.

Note

To locate Xerox systems on your local area network, select **Auto Printer Discovery**, then click **Refresh**. The Xerox TCP/IP Port Monitor searches the network for Xerox systems and displays them in a list. Select your desired system from the list, then click **OK**.

Completing the System Port TCP/IP

After the port settings have been configured and verified, a **Completing** dialog box appears summarizing all the settings. You can change or select system port settings.

1. Select one of these options:
 - Click **Finish** to complete the system port setup.
 - Click **Back** to change the settings. When you have completed the changes, click **Finish** to complete the system setup.
2. Click **OK** to exit **Printer Properties**.

PhaserPort Software

Note

PhaserPort is the preferred utility for PostScript installations. For PCL installations, go to “Xerox TCP/IP Port Monitor” in this section.

The Windows installer installs PhaserPort for Windows (for those installations using PostScript drivers). PhaserPort for Windows is a Xerox print monitor for printing over Windows 98 or Windows Me TCP/IP peer-to-peer networks.

Changing a PhaserPort IP Address

If the system's IP address is changed, you must change the IP address for the device's corresponding port:

1. Click **Start**, click **Settings**, then click **Printers**.
2. Right-click the system to be changed to a new PhaserPort IP address, then click **Properties**.
3. Select the **Details** tab.
4. Verify that PhaserPort appears in the **Print to the Following Port** field.
5. Click **Port Settings**. The **Configure PhaserPort** dialog box appears.
6. Do one of the following:
 - a. If you know the correct IP address or DNS name for the system, enter that information.
 - b. If you don't know the system's IP address or DNS name, then click **Browse** to display a list of systems on the network.
 - c. Double-click the appropriate system. PhaserPort automatically enters the information into the **Configure PhaserPort** dialog box.

Note

To search the network again, click **Refresh**. To expand the search to other subnets, click **Advanced**.

7. Click **OK**.
8. Click **OK** again to apply the changes.

Windows 98 and Windows Me Troubleshooting

This troubleshooting section assumes you have completed the following tasks:

- Verified that the system is plugged in, turned **On**, and connected to an active network.
- Installed a PCL or PostScript device driver.
- Verified that the system is receiving network information by monitoring the LEDs on the back of the device or on the CentreDirect External Print Server. When the system is connected to a functioning network and receiving traffic, its link LED is green, and its amber traffic LED is flashing rapidly.
- Printed and kept a current copy of the "Configuration Page".

Printing the Configuration Page

You can print the “Configuration Page” to help you solve printing problems and obtain the best results from your system. To print the “Configuration Page”:

1. On the control panel, press the **System Setup** button.
2. Select **Information**, then press the **Enter** button.
3. Select **Information Pages**, then press the **Enter** button.
4. Select **Configuration Page**, then press the **Enter** button to print.

Note

Print the Menu Map to see other information pages available for printing.

Verifying Settings

1. Right-click **Network Neighborhood** on the desktop, then click **Properties**.
2. Click the **Configuration** tab. A list of installed network components appears for the following items:
 - Client for Microsoft networks
 - Xerox TCP/IP Port Monitor
3. If you are running CentreWare DP verify the following:
 - Novell Networks: You are required to load Novell IntraNetWare Client or Microsoft Client for IPX networks.
 - TCP/IP Networks: No additional software is required, but your system must have a valid TCP/IP address assigned.
4. If any of the above protocols or services are not installed, install the necessary components and restart the system. When the system is restarted, return to this document.
5. Click **Start**, click **Settings**, then click **Printers**. The **Printers** window appears.
6. Right-click the printer icon, then click **Properties**.
7. Select the **Details** tab.
8. Verify the following:
 - a. The device driver name in the **Print Using the Following Driver** list. If necessary, re-select or install a new device driver.
 - b. The **Port** name in the **Print to the Following Port** list. If necessary, re-select the correct name.
9. Send a print job to the system. If the system does not print, access **PhaserSMART** Technical Support from the **Troubleshooting** tab of the Windows device driver or go to www.xerox.com/office/support.

infoSMART Knowledge Base Documents (English only)

For more information, go to www.xerox.com/office/c2424infoSMART to view these documents.

Reference Name	Title
R100207118	Installing a Windows 98/Me printer driver

Macintosh

This topic includes:

- "Requirements" on page 6-31
- "Quick CD-ROM Install Steps" on page 6-31
- "Enabling and Using EtherTalk for Mac OS 9.x" on page 6-31
- "Enabling and Using TCP/IP for Mac OS 9.x" on page 6-32
- "Enabling or Using TCP/IP or AppleTalk for Mac OS X, Version 10.1 and Higher" on page 6-34
- "Macintosh Troubleshooting (Mac OS 9.x, Mac OS X, Version 10.1 and Higher)" on page 6-35
- "infoSMART Knowledge Base Documents (English only)" on page 6-36

Requirements

- A workstation with the appropriate device driver installed.
- A working knowledge of the operating system (OS 9.x or higher) being used on the workstation.
- Proper cabling to connect the system to the network.

Quick CD-ROM Install Steps

1. Insert the *WorkCentre C2424 Software CD-ROM* into the computer's CD-ROM drive.
2. Double-click the installer on the software CD-ROM to install the device driver.

Enabling and Using EtherTalk for Mac OS 9.x

If you use EtherTalk, Macintosh computers do not require IP addresses.

1. Open the **AppleTalk Control Panel**. Verify that the Ethernet port is the selected network port.
2. Open the **Chooser**, then click the **LaserWriter printer** driver.
3. Select the system.
4. Click **Create** to create the desktop system.

Enabling and Using TCP/IP for Mac OS 9.x

This section provides installation and troubleshooting steps for Macintosh OS 9.x.

Setting Up the Macintosh Ethernet Port for TCP/IP

Perform the following procedure to set up your Macintosh for TCP/IP:

1. Select **Network** from the System Preferences application, then select **TCP/IP**.
2. Select **Built-In Ethernet** from the **Active Ports** menu.
3. Specify how you will obtain the IP address from the **TCP/IP** tab:
 - **Manually**: Specify the IP address, **Subnet Mask**, **Router Address**, and **Name Server Address** in the dialog box.
 - **DHCP**: Automatically finds the IP address.
 - **AppleTalk**: Select the **AppleTalk** tab, then verify that the **Make AppleTalk Active** box is selected.
4. Close the dialog box.

For more information, go to the table of [infoSMART Knowledge Base documents](#) at the end of this section.

Creating an LPR System with LaserWriter 8.5.1 or Higher

1. Open the **Desktop Printer Utility**. This utility, or an alias to it, can be found in the PhaserTools folder.
2. Click **Printer (LPR)** in **Create Desktop**, then click **OK**.
3. Click **Change** in the **PostScript Printer Description (PPD)** file.
4. Select the appropriate PPD from the list, then click **Select**. If your system PPD is not listed, install it from the *WorkCentre C2424 Software CD-ROM*.
5. Click **Change** in **LPR Printer Selection**.
6. Enter information in the following fields:
 - **Printer Address**: Enter the system's IP address or domain name.
 - **Queue**: Enter **PS** (use upper-case), then click **OK**.
7. Close the dialog box. When prompted, click **Save**.
8. Enter a name for the desktop system in **Save Desktop Printer As** field, then click **Save**.
9. Two methods are available for printing through LPR:
 - Use the new Desktop Printer (LPR).
 - Use the LaserWriter 8.5.1 device driver (any device can be selected). Click **File**, then click **Print** to select the appropriate LPR device in the **Printer** drop-down list.

Creating an AppSocket System with LaserWriter 8.6

Xerox provides Macintosh AppSocket printing with PhaserPort for Mac OS on the *WorkCentre C2424 Software CD-ROM*. PhaserPort for Mac OS provides a bi-directional, high-speed communications channel using the new plug-in communication architecture of Apple LaserWriter version 8.6.

AppSocket provides feedback about print job status which is not available through LPR.

PhaserPort for Mac OS System Requirements

Note

PhaserPort is not supported by Mac OS X.

System requirements include:

- A system installed on a TCP/IP network
- PowerPC-based Macintosh
- Apple's LaserWriter version 8.6 or later, with Desktop Printing enabled
- Open Transport version 1.1 or later networking. TCP/IP networking provided by MacTCP software is not supported. The Macintosh must be properly configured to communicate with the system.

Creating a Desktop System with PhaserPort for Mac OS

1. Launch the **PhaserPort Printer Tool**.
2. Enter the system's IP address or DNS name in the **Printer Internet Address** field.
3. Enter a name for the desktop system in the **Desktop Printer Name** field.
4. Click **Verify** to contact the system over the TCP/IP network, then verify its network configuration.
5. Click **Create** to create the desktop system.
6. Click **Quit** to exit the **PhaserPort Printer Tool**.
7. In the **Finder**, click the newly created desktop system icon.
8. Click **Change Setup** in the **Finder's Printing** menu.
9. Select the **PostScript Printer Description** file and provide configuration information. You can also select the **Auto Setup** button, then Macintosh automatically attempts to determine the correct settings for the system.

Note

Certain utilities, such as Adobe Font Downloader, are not compatible with PhaserPort for Mac OS software because they attempt to directly communicate with the system using the AppleTalk protocol. If you use Mac OS software, create an AppleTalk desktop system, then delete this system after running and exiting the non-compatible software.

Enabling or Using TCP/IP or AppleTalk for Mac OS X, Version 10.1 and Higher

Requirements

Verify that you are running Mac OS X, version 10.1. The previous versions of Mac OS X do not fully support PostScript printing and printer features.

Setting Up the Macintosh Ethernet Port for TCP/IP or AppleTalk

Perform the following procedure to set up your Macintosh for TCP/IP:

1. Select **Network** from the System Preferences application, then select **TCP/IP**.
2. Select **Built-In Ethernet** from the **Active Ports** menu.
3. Specify how you will obtain the IP address from the **TCP/IP** tab:
 - **Manually**: Specify the IP address, **Subnet Mask**, **Router Address**, and **Name Server Address** in the dialog box.
 - **DHCP**: Automatically finds the IP address.
 - **AppleTalk**: Select the **AppleTalk** tab, then verify that the **Make AppleTalk Active** box is selected.
4. Close the dialog box.

For more information, go to the table of [infoSMART Knowledge Base documents](#) at the end of this section.

Creating an LPR System with Mac OS X, Version 10.1 and Higher

1. Open the **Print Center** utility. In Mac OS X, version 10.3 or higher, the utility is called **Printer Setup**. The utility is located in a directory called **Utilities** in the **Applications** directory.
2. Select **Add Printer**, then select **LPR Printers Using IP** from the pull-down menu.
3. Enter the copier-printer system's IP address or host name in the **LPR Printer's Address** field.
4. Enter **PS** (use upper-case) in the **Queue** field, then click **OK**.
5. Select the appropriate **PPD** from the list in the **Printer Model** drop-down list. If your system PPD is not listed, install it from the *WorkCentre C2424 Software CD-ROM*.
6. Click **Add** to complete the configuration.

Creating an AppleTalk System with Mac OS X, Version 10.1 and Higher

1. Verify that **AppleTalk** is enabled in **System Preferences**.
2. Open the **Print Center** utility. In Mac OS X, version 10.3 or higher, the utility is called **Printer Setup**. The utility is located in a directory called **Utilities** in the **Applications** directory.
3. Select **Add Printer**, then select **AppleTalk** from the pull-down list.
4. Select the appropriate zone.

5. Select your system from the list provided.
6. Select the appropriate **PPD** from the list in the **Printer Model** drop-down list. If your system PPD is not listed, install it from the *WorkCentre C2424 Software CD-ROM*.
7. Click **Add** to complete the configuration.

For more information, go to the table of [infoSMART Knowledge Base documents](#) at the end of this section.

Creating a Rendezvous System with Mac OS X, Version 10.2 and Higher

1. Open the **Print Center** utility. In Mac OS X, version 10.3 or higher, the utility is called **Printer Setup**. The utility is located in **Utilities** in the **Applications** directory.
2. Click **Add**.
A list appears displaying name of your system, followed by a series of numbers. For example, *Your System's Name xx:xx:xx*. Each numbered segment represents the last section of your system's hardware address. Your PPD is automatically selected.
3. Click **Add** to complete the installation.

Macintosh Troubleshooting (Mac OS 9.x, Mac OS X, Version 10.1 and Higher)

The following procedure eliminates cabling, communication, and connection problems. Once you complete these steps, print a test page from your software application. If the job prints, no further system troubleshooting is necessary. If there are print quality problems, see the Troubleshooting section of this guide.

Macintosh Troubleshooting Step-By-Step

Mac OS 9.x

Perform these steps *only* for Mac OS 9:

1. Open the **Chooser**, then click the **LaserWriter** driver.
2. Do one of the following:
 - If the system's name appears, your device is communicating through the network. You do not need to perform any additional steps.
 - If the system's name does not appear, proceed to Step 3.
3. Verify that the system is plugged in, turned **On**, and connected to an active network.
4. Verify the cable connection from the network to the copier-printer system.
5. Follow these steps:
 - a. From the system's control panel, verify that **EtherTalk** is enabled. If it is not, enable it in the control panel, then reset the system.
 - b. Print the "Configuration Page" and verify that **EtherTalk** is enabled.
 - c. From the "Configuration Page", verify the **Zone**. If you have multiple zones on your network, verify that your copier-printer system appears in the desired zone.

6. If you are still unable to print, go to www.xerox.com/office/support or access **PhaserSMART** Technical Support through CentreWare IS:
 - a. Launch your web browser.
 - b. Enter the copier-printer system's IP address in the browser's **Address** field (http://xxx.xxx.xxx.xxx).
 - c. Select **Support**.
 - d. Click the **PhaserSMART Diagnostic Tool** link to access PhaserSMART.

Mac OS X, Versions 10.1 and Higher

Perform these steps *only* for Mac OS X, version 10.1 and higher:

1. Open the **Network Utility**, then click the **Ping** tab.
2. Enter the system's IP address.
3. Click **Ping**. If you do *not* get a response, confirm that your TCP/IP settings are correct for your system and computer.
4. For **AppleTalk**, follow the steps below. For **TCP/IP** proceed to Step 5.
 - a. From the system's control panel, verify that **EtherTalk** is enabled. If it is not, enable it in the control panel, then reset the system.
 - b. Print the "Configuration Page" and verify that **EtherTalk** is enabled.
 - c. From the "Configuration Page", verify the **Zone**. If you have multiple zones on your network, verify that your system appears in the desired zone.
5. If you are still unable to print, go to www.xerox.com/office/support or access **PhaserSMART** Technical Support through CentreWare IS:
 - a. Launch your web browser.
 - b. Enter the system's IP address in the browser's **Address** field (http://xxx.xxx.xxx.xxx).
 - c. Select **Support**.
 - d. Click the **PhaserSMART Diagnostic Tool** link to access PhaserSMART.

infoSMART Knowledge Base Documents (English only)

For more information, go to www.xerox.com/office/c2424:infoSMART to view these documents.

Reference Name	Topic
R1016022419	Installing the Printer for an Ethernet (TCP/IP) Connection in Mac OS X 10.3.1 (and later)
R1002050080	Setting up TCP/IP (DHCP) in Macintosh OS X
R1002049814	Setting up AppleTalk in Macintosh OS X
R1016024955	Installing the Printer for an AppleTalk Connection in Mac OS X 10.3.1 (and later)

Novell NetWare

This section includes:

- "Configuration Software for NetWare Networks" on page 6-37
- "Quick Setup" on page 6-37
- "Advanced Setup" on page 6-37
- "NetWare 4.x, NetWare 5.x, and NetWare 6.x Print Server Setup" on page 6-38
- "Novell NetWare Troubleshooting" on page 6-38

Configuration Software for NetWare Networks

CentreWare DP configures the system and the network when using NetWare 4.x, 5.x, and 6.x. CentreWare DP is a Novell Directory Service (NDS)/Bindery tool used only for Novell Distributed/Enterprise Print Services (NDPS).

Quick Setup

1. Print the "Configuration Page" and keep it for reference.
2. View the "Configuration Page", then verify the following:
 - **Novell enable** is **On**.
 - **Frame Type** is correctly set.
3. Install CentreWare DP on a Windows-based workstation.
4. Run the CentreWare DP application, then click **Setup Wizard** on the **Printer** menu.
5. Select **NDS Install**, then follow the **Setup Wizard** steps.
6. Install device drivers from the *WorkCentre C2424 Software CD-ROM*.
7. Send a print job to the system.
8. Verify the print-quality of the document. If print-quality problems exist, or if your document did not print, see the Troubleshooting section of this guide.

Advanced Setup

The Advanced Setup option of CentreWare DP is a tool that allows you to control how your devices are configured in your Novell NetWare network environment. This tool is necessary for connecting your device to more than one file server or queue. For a connection to a single device and queue, use Setup Wizard.

NetWare 4.x, NetWare 5.x, and NetWare 6.x Print Server Setup

The system defaults enable connection to Novell NetWare without adjustment. Review the “Configuration Page” and verify the following settings:

- **NetWare** is enabled.
- **Frame Type** matches the frame type of the desired file server.
- **PDL** is set to your desired PDL (**PostScript** or **PCL**) or to **Auto**. You may wish to set PDL to the desired type if only one PDL is used.
- **Desired Novell mode** is set to either **NDS/BEM**, **NDS**, or **BEM (Bindery Emulation Mode)**.
- **Print Server Name**

Setting Up NetWare with CentreWare DP

The CentreWare DP software provides the quickest and easiest method for installing a system on a network. For more information go to www.xerox.com/office/pmtools, and select your system model to access the *CentreWare DP User Guide* or see *CentreWare DP Online Help*.

Advanced Setup in Bindery Mode for Novell Directory Services (NDS)

The Advanced Setup option of CentreWare DP provides an additional tool to control how your systems are configured on a Novell NetWare network environment. This tool is necessary for connecting a system to more than one file server or queue.

Novell Distributed/Enterprise Print Services (NDPS/NEPS)

To access Xerox systems in this environment, Xerox Gateway software must be installed on a computer system. The latest version of the Xerox Gateway Software is available on the Xerox web site at www.xerox.com/office/pmtools. Instructions are available on the web site for installing a system using NDPS. The web site also contains the *Xerox NDPS User Guide*.

Novell NetWare Troubleshooting

Troubleshooting for Windows-based computers includes both hardware and software solutions to eliminate cabling, communication, and connection problems associated with direct-connected ports. Complete one of the following procedures (based on the type of port being used), then print a test page from your software application. If the test page prints, no further system troubleshooting is necessary. For print-quality problems, see the Troubleshooting section of this guide.

Requirements

Verify that you:

- Are operating a Windows-based system with CentreWare DP software installed and at least one device driver installed.
- Are a NetWare Network Administrator, an administrative person with ADMIN/SUPERVISOR, or ADMIN/SUPERVISOR EQUIVALENT within login rights to the NetWare Server(s) servicing the device.
- Have a basic knowledge of NetWare.

Printing the Configuration Page

You can print the “Configuration Page” to help you solve printing problems and obtain the best results from your system. To print the “Configuration Page”:

1. On the control panel, press the **System Setup** button.
2. Select **Information**, then press the **Enter** button.
3. Select **Information Pages**, then press the **Enter** button.
4. Select **Configuration Page**, then press the **Enter** button to print.

Note

Print the Menu Map to see other information pages available for printing.

Novell NetWare Troubleshooting Quick Check

1. Verify that the system is plugged in, turned **On**, and connected to an active network.
2. Verify that the system is receiving network information by monitoring the LEDs on the back of the device. When the system is connected to a functioning network and receiving traffic, its link LED is green, and its amber traffic LED is flashing rapidly.
3. Verify that the client is logged into the network and printing to the correct print queue.
4. Verify that the user has access to the system printer queue.
5. Verify that the system printer NetWare print queue exists, is accepting jobs, and has a print server attached. If it does not, use the Setup Wizard in CentreWare DP to reconfigure the print queue.
6. Print the “Configuration Page”. Verify that **Printer Server** is enabled. Set the frame type to the frame type your NetWare server is using.

Note

To determine your NetWare IPX frame type, type *config* at the Novell console screen. On networks using multiple IPX frame types, it is *critical* that the frame type be set correctly.

7. Go to www.xerox.com/office/support if the above steps fail to resolve the printing problem.

Novell NetWare Troubleshooting Step-By-Step

These procedures eliminate cabling, communication, and connection problems associated with network connected systems. The steps are divided into two groups:

- Novell NetWare Hardware Step-by-Step
- Novell NetWare Software Step-by-Step

Note

Novell NetWare Software Step-by-Step assumes that you are connected to a Novell NetWare network with a Windows OS installed on the client workstation. When both of these procedures are completed, print a test page from your software application. If the test page prints, no further system troubleshooting is necessary.

Novell NetWare Hardware Step-By-Step

Note the LED activity on the system. The green link LED is ON whenever it is connected to an active network. The amber traffic LED is flickering when data is being received.

1. Verify the following:
 - The cable connections: Use a new cable or connectors if possible
 - Which port your system is attached to. Connect a functioning network device to your system to test the port.
2. Print the “Configuration Page” from your system.
3. Review the **Connectivity Settings** and verify these items:
 - **NetWare** is enabled.
 - **Frame Type** matches the frame type of the desired file server.

Note

To determine your NetWare IPX frame type, type *config* at the Novell console screen. On large networks, using multiple IPX frame types, it is *critical* that the frame type be set correctly.

- **PDL** is set to your desired PDL (**PostScript** or **PCL**) or to **Auto**.
 - **NDS Tree** (for NetWare 4.x NDS and later) is set for the correct NDS tree name.
 - **NDS Context** (for NetWare 4.x NDS and later) is set for the correct NDS Context.
 - **Print Server** (PServer) Name is set for the name selected for the system to act as a print server.
 - **Novell Mode** is correctly set.
4. If changes are made, reset the system. Once the system has been reset, allow approximately two minutes for the system to go through a self test, then log onto the network server.
 5. Print out another copy of the “Configuration Page” to verify that the items you modified were set and kept.

Novell NetWare Software Step-By-Step

1. Verify that CentreWare DP and a device driver have been loaded on the workstation.
2. Click **Start**, click **Settings**, then click **Printers** to verify that the system is installed.

Launching CentreWare DP

1. Click **Start**, click **Programs**, then click **CentreWare DP**.
2. Select the desired system. If a communications error message appears, your system is not able to communicate with your workstation. Verify the system settings, then return to this document.
3. With the system selected, click the **Printer** drop-down list, then select **Advanced Setup**.
4. Select one of the following connection methods:
 - **Novell Directory Services**
 - **Bindery**
5. Verify that the information displayed is also contained on the “Configuration Page”. Verify these items:
 - a. The queue name of the system is set to **service**. If necessary, create a new queue to test the system.
 - b. The **Primary Server** lists the server name on the “Configuration Page”.

Printing a Document

1. Click the **Tools** drop-down list.
2. Select the **Send File...** menu item, then select the appropriate directory and file for downloading. Verify that this is a valid file with no errors.
3. Click **OK**. The file is sent to the system. If the document does not print, review the Novell Menu settings on the “Configuration Page”.

Verifying the Network Settings

1. At the CentreWare DP main screen, click the **Printer** drop-down list, click **Properties**, then click **Connections**.
2. Click the **Network Card** tab. A new dialog box displays information about frame type and connectors.
3. Verify that the system is enabled and the connector and frame type are correct. If changes are made, reset the system from the control panel.
4. Re-print a test page. If the test print does not print, go to www.xerox.com/office/support.

UNIX (Linux)

This section includes:

- "Quick Install Steps" on page 6-42
- "Additional Resources" on page 6-43

Your system supports connection to a variety of UNIX platforms through the network interface. The workstations currently supported by CentreWare for UNIX/Linux to a network-connected system are:

- Sun Solaris
- IBM AIX
- Hewlett-Packard HP-UX
- DEC UNIX
- Linux (i386)
- Linux (PPC)
- SGI IRIX

The following procedures enable you to connect your system using any of the supported versions of UNIX or Linux listed above.

Quick Install Steps

From the System

1. Verify that both TCP/IP protocol and the proper connector are enabled.
2. At the control panel, select one of these IP address options:
 - Allow the copier-printer system to set up a DHCP address.
 - Enter the IP address manually.
3. Print the "Configuration Page" and keep it for reference.

From Your Computer

1. Access www.xerox.com/office/drivers.
2. Select your system, the platform you are running (**UNIX**), and file type (**Drivers**).
3. Click **Go to Downloads**.
4. From the list of files provided, download the **PrinterPackageXPXX** and the file that matches your operating system.
5. Print a test page.
6. Verify the print quality of the printed page.

Note

If print-quality problems exist, or if your job did not print, see the Troubleshooting section of this guide. You can also access PhaserSMART Technical Support through CentreWare IS.

Launch your web browser.

- a. Enter the system's IP address in the browser's **Address** field (<http://xxx.xxx.xxx.xxx>).
- b. Select **Support**.
- c. Click the **PhaserSMART Diagnostic Tool** link to access PhaserSMART.

Printing the Configuration Page

You can print the "Configuration Page" to help you solve printing problems and obtain the best results from your system. To print the "Configuration Page":

1. On the control panel, press the **System Setup** button.
2. Select **Information**, then press the **Enter** button.
3. Select **Information Pages**, then press the **Enter** button.
4. Select **Configuration Page**, then press the **Enter** button to print.

Note

Print the Menu Map to see other information pages available for printing.

Additional Resources

- Information about creating a generic print queue in a specific workstation environment can be found in the Xerox infoSMART Knowledge Base at www.xerox.com/office/infoSMART.
- Access the Xerox web site for the latest CentreWare for UNIX drivers at www.xerox.com/office/drivers.
 - a. Select your copier-printer system, the platform you are running (**UNIX**), and the files you would like (**Drivers**).
 - b. Click **Go to Downloads**.
 - c. Select the appropriate CentreWare device driver for your platform.
 - d. Also download the **PrinterPackageXPXX**. It provides the specific features of CentreWare for UNIX driver.