

EPSON® Scan Server & EPSON TWAIN Pro Network

SCANNER UTILITY PROGRAMS

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User's Guide

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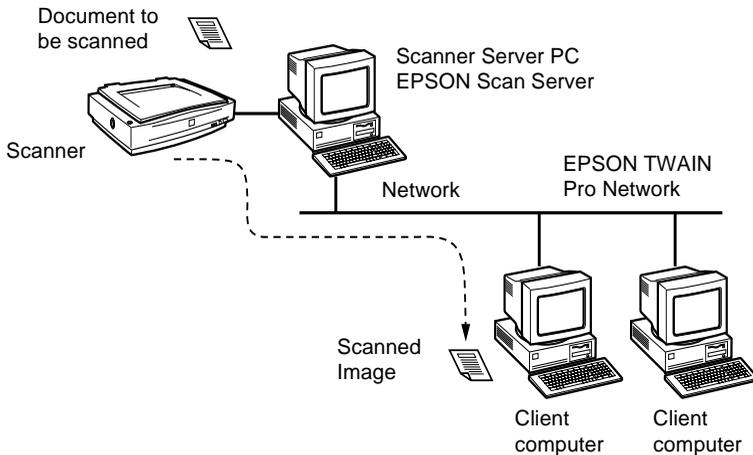
Features

EPSON Scan Server and EPSON TWAIN Pro Network software work together to directly control all of the features of your EPSON scanner on a network. Through the use of these software packages, you can share one or more scanners among the users in a network and allow scanned images to be imported into any TWAIN-compliant application.

EPSON Scan Server software is installed on a PC running on Windows which is connected to an EPSON scanner (hereafter, the PC is called the scanner server PC), and makes the EPSON scanner shareable in the network. The scanner can be accessed from all client computers (Windows or Macintosh) which have EPSON TWAIN Pro Network software installed.

EPSON TWAIN Pro Network software controls the functions of your scanner just like EPSON TWAIN Pro software and can be used on a network. On the other hand, EPSON TWAIN Pro software is designed to be used only in a stand-alone configuration in which only one computer is connected to an EPSON scanner.

The illustration below shows a sample network configuration in which network scanning is available. One of the clients can be connected to the scanner server PC and import a scanned image from the scanner. After disconnecting, another client can access the scanner server PC.



If there are multiple EPSON scanners and scanner server PCs in the network, you can select which scanner to use in the EPSON TWAIN Pro Network Setup dialog box on the client. To share an EPSON scanner by clients in the network, only one EPSON scanner can be connected to one scanner server PC.

About This Guide

This User's Guide provides detailed instructions for installing and using EPSON Scan Server and EPSON TWAIN Pro Network software.

- ❑ Chapter 1 contains information about installing EPSON Scan Server and EPSON TWAIN Pro Network software.

- ❑ Chapter 2 provides basic information about network scanning.
- ❑ Chapter 3 contains troubleshooting information.
- ❑ The Appendix describes the procedure for initially setting up a computer to be a scanner server.

Notes in this Guide contain important information and useful tips on operating your scanner or software.

This User's Guide assumes that you have a basic understanding of the Windows or Macintosh operating system.

In this guide, the word "Windows" generally includes Window 95, 98, 2000 and NT 4.0 versions. Furthermore, screen displays of Windows 98 are used to represent displays of all versions of Windows unless the operating procedure differs between versions. When explanations cover specific versions of Windows, phrases such as "Windows 95," "Windows 2000," or "Windows NT 4.0" will be used to identify the version.

References

There are other detailed user guides which contain useful information for scanning. Please refer to those manuals to achieve the best quality scanned images.

EPSON Scanner Online Reference Guide

Provides basic information about scanning and detailed reference on the setting and functions of EPSON TWAIN Pro and other EPSON scanner utility software. Since the settings and functions for EPSON TWAIN Pro and EPSON TWAIN Pro Network are the same, please refer to this guide for details on the settings and functions of EPSON TWAIN Pro Network.

User's Guide for your EPSON scanner

Leads you through scanner setup and options installation, tells you how to use the scanner and how to make basic scans. Be sure to read this guide before connecting your scanner to a computer running EPSON Scan Server.

Installing the Software

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System Requirements

- Computer: for EPSON Scan Server
IBM PC/AT compatible computer
(Intel Pentium or faster processor is recommended)
- for EPSON TWAIN Pro Network
IBM PC/AT compatible computer
(Intel Pentium or faster processor is recommended), or Apple Power
Macintosh
- Operating System: for EPSON Scan Server
Windows 2000/98/95, or Windows NT 4.0
- for EPSON TWAIN Pro Network
Windows 2000/98/95, or Windows NT 4.0
or Mac OS 8.0 or later
- Note:**
*The included software cannot be used with the
Multiple Users function of Mac OS 9.*
- System Configuration: Minimum two computers in a network.
- Scanner: EPSON EXPRESSION 1640XL
- Hardware Interface for scanner: SCSI, USB, IEEE1394
- Hardware Interface for networking: 10BaseT/100BaseTX, 10Base5,
10base2
- Ethernet Communication Protocol: TCP/IP

Software for Scanning over a Network

To use EPSON scanners on a network and send scanned images to client machines, you need to install the following software:

- ❑ EPSON Scan Server on the PC connected to the EPSON scanner you want to use
- ❑ EPSON TWAIN Pro Network on network clients

Note:

- ❑ *EPSON Scan Server must be installed on Microsoft Windows 2000, 98, 95 or NT 4.0. EPSON TWAIN Pro Network supports both Windows and Macintosh. See System Requirements in this chapter for details.*
- ❑ *To install the scanner software in Windows 2000 or NT 4.0, you need to log on to Windows as an Administrator.*

Installing EPSON Scan Server

Note:

EPSON Scan Server will only run on Windows 2000, 98, 95, or NT 4.0.

Before installing EPSON Scan Server, you need to do the following:

1. Connect your scanner to the scanner server.
2. Turn on the scanner, then the scanner server.
3. Insert the EPSON Scanner Software CD in the CD-ROM drive.

If Windows 2000, Windows 98 or Windows 95 is used, it automatically detects the connected scanner and starts the New Hardware Found Wizard.

Type **X:\EPSON\language\Win2000** if you are using Windows 2000, **X:\EPSON\language\Win98** if you are using Windows 98, or **X:\EPSON\language\Win95** if you are using Windows 95 as the location, where **X** is the drive letter of the CD-ROM drive and **language** is your language such as English or French.

On Windows 2000 and Windows 98, EPSON TWAIN Pro is installed. On Windows 95, the .inf file is installed.

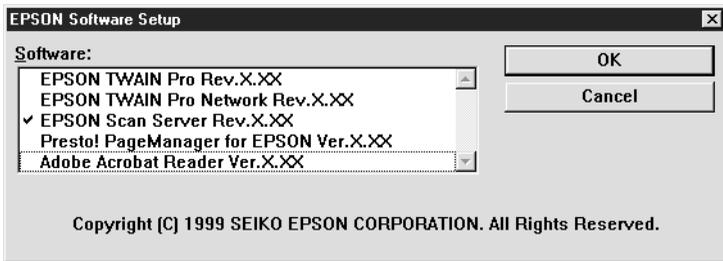
4. Start the Windows Explorer and double-click **Cdsetup.exe** in the CD-ROM drive.
5. Select the language that you want to use in the Select language dialog box and click **OK**.

The EPSON Software Setup dialog box appears.

- 6. Click **Add Software** in the EPSON Software Setup dialog box.



- 7. Select EPSON Scan Server by checking to the left of the name in the EPSON Software Setup dialog box. At this point, you can select other software to be installed. Make sure to remove the check mark from software which is already installed on the scanner server PC.



- 8. Click **OK** to start the installation of selected software.

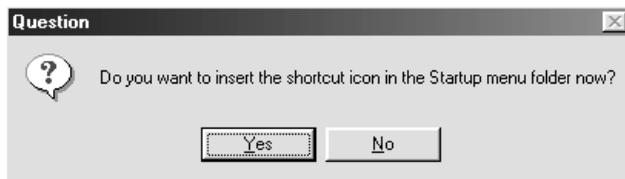
The Welcome dialog box appears.

9. Click **Next** to continue.



The File Copy Progress bar appears. After files are copied, the Question dialog box appears.

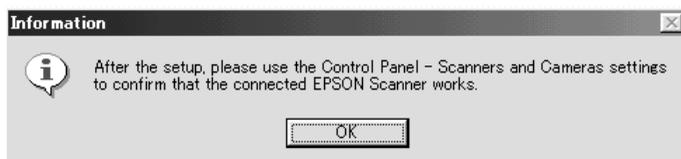
10. Click **Yes** or **No**.



11. Find your version of Windows below and follow the appropriate instructions.

For Windows 2000 and Windows 98 users:

The information dialog box appears. Click **OK**, then go to step 16 to finish the setup procedure.



Note:

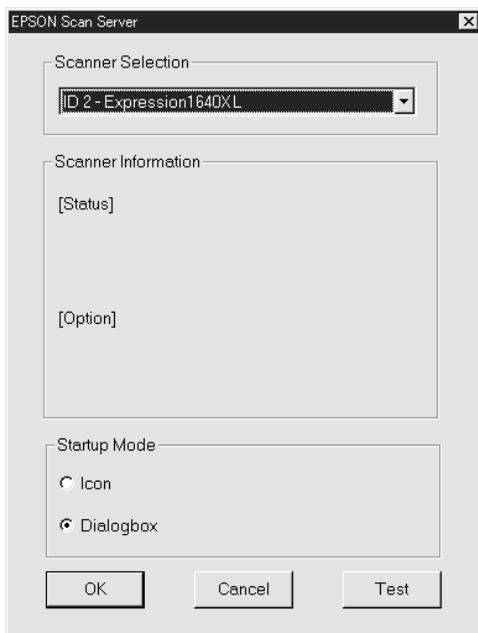
*After you finish the setup procedure, be sure to double-click the **Scanners and Cameras** icon on the Control Panel and select **EPSON Expression 1640XL** in the Scanners and Cameras Properties list. See "Setting the default scanner for Windows 2000 and Windows 98 Users" on page 1-11 for details.*

For Windows 95 and Windows NT 4.0 users:

The EPSON Scan Server dialog box appears.



Click **Next**, the EPSON Scan Server setup dialog box appears.

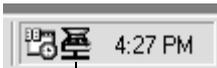


12. Select the scanner to be used from the Scanner Selection box.

Note:

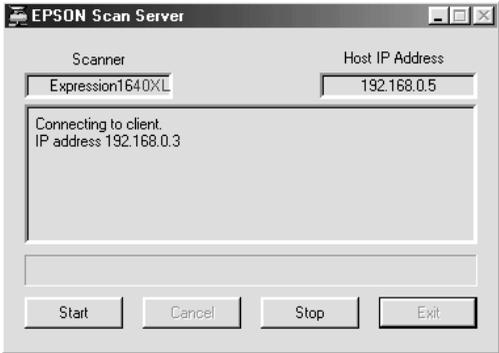
*If the EPSON TWAIN Pro software or device information file is not already installed on the scanner server PC using Windows 95, no available scanners will appear on the list at this point. In this case, skip selection of the scanner name and continue the installation. Then proceed with the installation of the EPSON TWAIN Pro software. After the installation, select **EPSON Scan Server** from the Control Panel. Now the scanner name is on the list and can be selected.*

- 13. Select the desired start up mode between **Icon** or **Dialog box**. In icon start up mode, the **EPSON Scan Server** icon appears in the Taskbar tray when Scan Server starts as shown below.



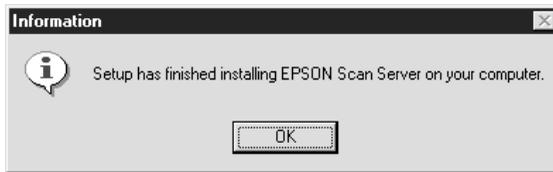
EPSON Scan Server icon

In dialog box mode, the following dialog box appears when Scan Server starts.

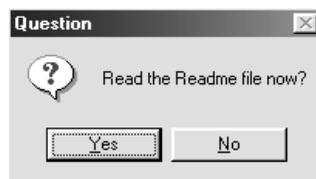


- 14. To test the status of the scanner, click **Test**.
After the test is completed, information about the scanner status is displayed below the [Status] heading.
- 15. After setting this dialog box, click **OK**.
The Setup Complete dialog box appears.

16. Click **OK**.



17. Click **Yes** or **No**.

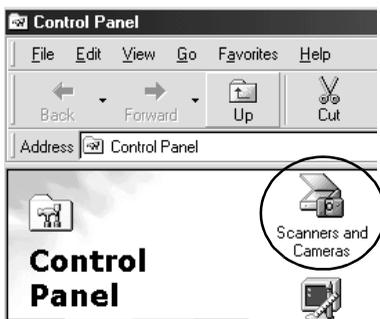


Installation of EPSON Scan Server is complete.

Setting the default scanner for Windows 2000 and Windows 98 Users

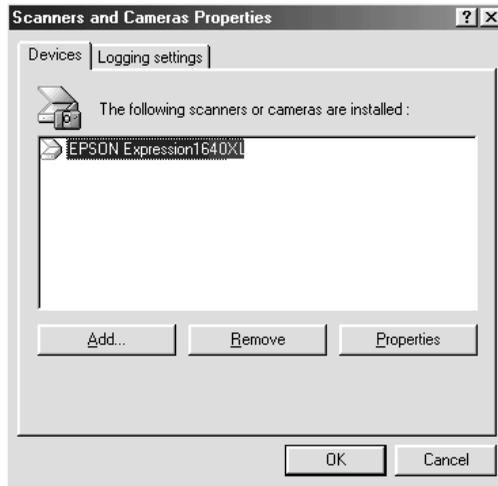
Windows 2000 and Windows 98 users can select the default scanner they want to use from Scanners and Cameras on the Control Panel once they have installed EPSON Scan Server. The following describes how to select the default scanner.

1. Make sure you have completed installation of EPSON Scan Server as described on pages 1-4 to 1-9.
2. Double-click the **Scanners and Cameras** icon on the Control Panel.



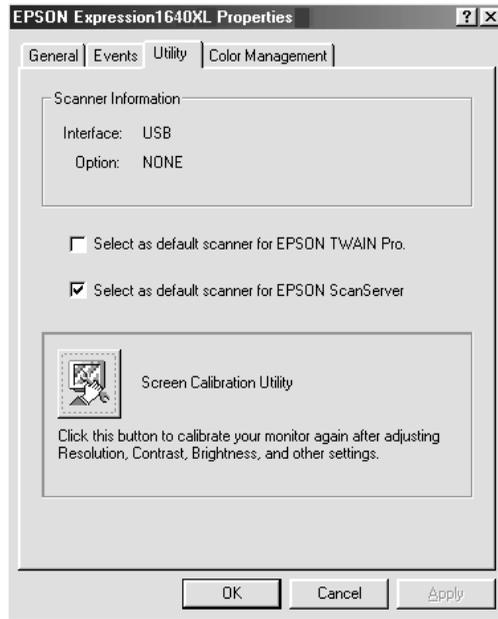
The Scanners and Cameras Properties dialog box appears showing a list of scanners and cameras installed on your computer.

3. Select **EPSON Expression 1640XL** and click the **Properties** button.



The EPSON Expression 1640XL Properties dialog box appears.

- 4. Click the **Utility** tab, make sure **Select as default scanner for EPSON Scan Server** is checked and then click **OK**.



- 5. Click **OK**.

Changing the start up mode

Dialog box to Taskbar icon:

To change from the dialog box start up mode to the Taskbar icon start up mode, click the scanner icon in the upper left corner of the EPSON Scan Server dialog box and select **Taskbar Icon** from the drop down menu. A check mark will appear next to **Taskbar Icon**.

Taskbar icon to dialog box:

To change from the Taskbar icon start up mode to the dialog box start up mode, right-click the **Scan Server icon** in the Taskbar tray and click **Taskbar Icon** to remove the check mark.

Your settings will take effect the next time you start EPSON Scan Server.

Installing EPSON TWAIN Pro Network

EPSON TWAIN Pro Network supports Windows 2000, Windows 98, Windows 95, Windows NT 4.0 and Power Macintosh computers. Install and use EPSON TWAIN Pro Network on a client machine that is connected to your network. Make sure you know the IP address or host name of the computer on which you installed EPSON Scan Server as you will need it while installing EPSON TWAIN Pro Network.

For Windows

1. Insert the EPSON Scanner Software CD in the CD-ROM drive.

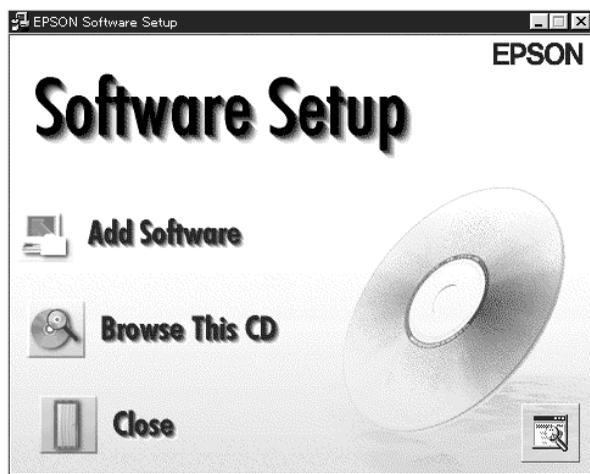
The installer automatically starts and the Select language dialog box appears. If the dialog box doesn't appear, start Windows Explorer and double-click **Cdsetup.exe** in the CD-ROM drive.

2. Select the language that you want to use in the Select Language dialog box and click **OK**.

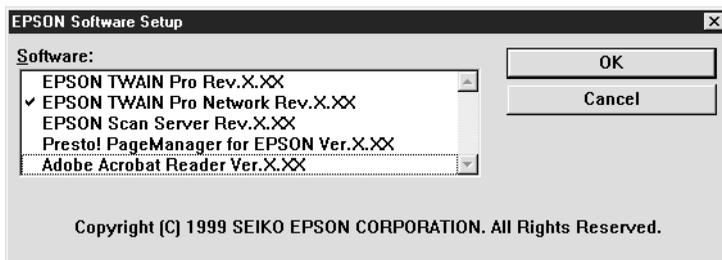


The EPSON Software Setup dialog box appears.

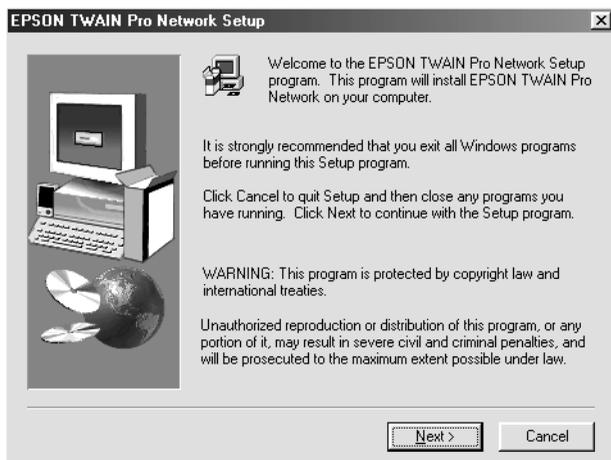
3. Click **Add Software** in the EPSON Software Setup dialog box.



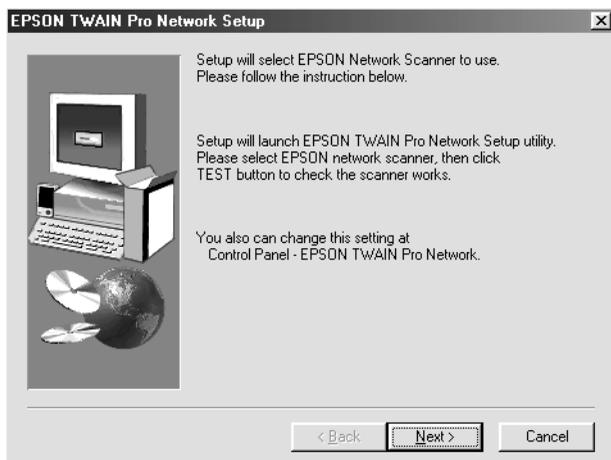
4. Select EPSON TWAIN Pro Network by clicking to the left of the name in the EPSON Software Setup dialog box. A check mark will appear to indicate that EPSON TWAIN Pro Network is selected. You can also select other software to install. Make sure to clear the check mark next to software already installed on your computer.



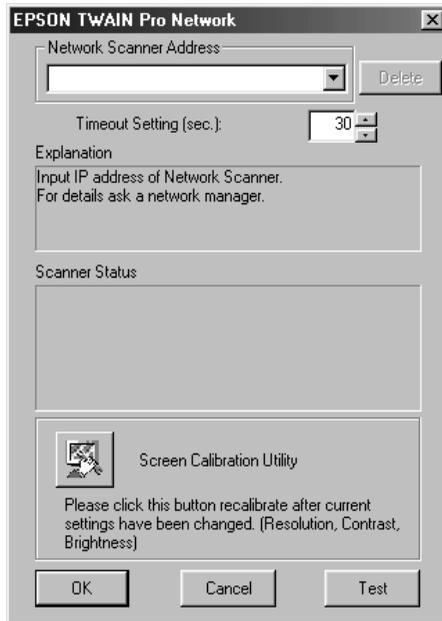
- 5. Click **OK** to start installation of selected software.
- 6. Click **Next**.



- 7. Click **Next**.



The EPSON TWAIN Pro Network setup dialog box appears.



Note:

*To change the settings in the EPSON TWAIN Pro Network setup dialog box anytime after setup is complete, click **Start** and point to **Settings** then select **Control Panel**. Then double-click the **EPSON TWAIN Pro Network** icon.*

8. Enter the IP address or host name of the scanner server PC in the Network Scanner Address box.

Note:

- A host name can be used on networks that use the DNS, WINS or LMHOSTS naming services.*
- To delete the IP address or host name, select it and then click **Delete**.*

- 9. Specify the Timeout Setting. Normally you do not need to change this value. Valid values range from 30 to 300 seconds.

For screen calibration, see “Calibrating Your Screen” on page 1-24.

- 10. To test the status of the scanner, click **Test**.

After the test is complete, information about the scanner's status is displayed below the heading Scanner Status.

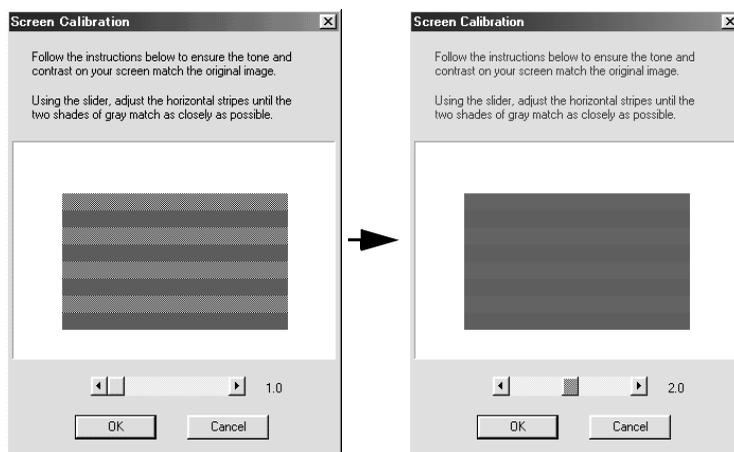
- 11. After setting this dialog box, click **OK**.

The Screen Calibration dialog box appears.

- 12. Click **Next**.



The Screen Calibration dialog box appears.



13. Move the slide bar right or left until the shades of gray of the two sets of horizontal stripes match, then click **OK**. For details, refer to “Calibrating Your Screen” on page 1-24.

14. Click **OK**.



Installation of EPSON TWAIN Pro Network is complete.

For Macintosh

1. Insert the EPSON Scanner Software CD in the CD-ROM drive.
2. Double-click the **EPSON TWAIN Pro Network** folder.

The EPSON TWAIN Pro Network folder contains multiple-language versions of software. Double-click the folder of your preferred language.

3. Double-click the **EPSON TWAIN Pro Network Installer** icon.

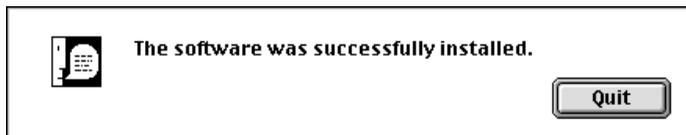


EPSON TWAIN Pro NET Installer

4. The installer software shows a dialog box. Click **Install** in the dialog box that appears, and follow the instructions on the screen.

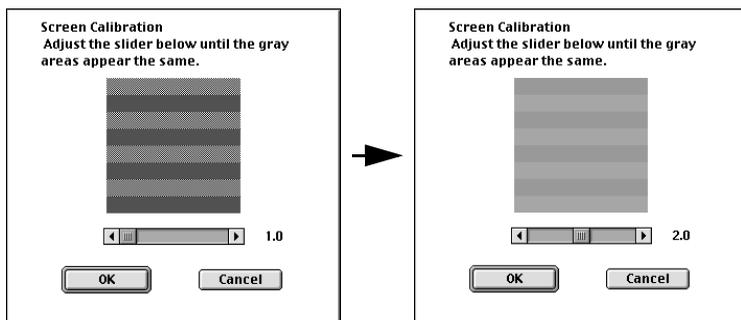


- When you finish installation, a message will appear on the screen. Click **Quit**.



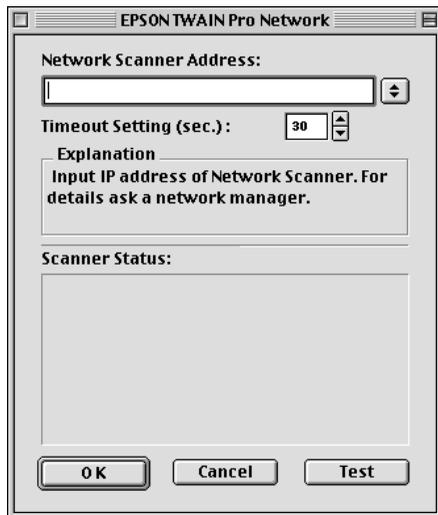
The Screen Calibration dialog box appears.

- Move the slider bar right or left until the shades of gray of the two sets of horizontal stripes match and click **OK**. For details, refer to "Calibrating Your Screen" on page 1-24.



The EPSON TWAIN Pro Network Setup dialog box appears.

7. Enter the IP address or host name of the scanner server PC in the Network Scanner Address box.



Note:

- A host name can be used on networks that use the DNS naming service.
 - To change the settings in the EPSON TWAIN Pro Network Setup dialog box anytime after setup is complete, click **Apple Menu** and point to **Control Panels**. Then select **EPSON TWAIN Pro NET**.
 - To delete the IP address or host name, select it and then click **Delete**.
8. Specify the Timeout Setting. Normally you do not need to change this value. Valid values range from 30 to 300 seconds.
 9. To test the status of the scanner, click **Test**.

After the test is complete, information about the scanner's status is displayed below the heading Scanner Status.

10. After setting this dialog box, click **OK**.

Installation of EPSON TWAIN Pro Network is complete.

Calibrating Your Screen

You need to calibrate your screen so that scanned images will be reproduced on the screen as closely as possible to the original.

During the installation of EPSON TWAIN Pro Network software, the calibration utility automatically starts and you can calibrate your screen at that point.

To manually start the calibration utility, follow the instructions for your system shown below.

For Windows 2000 or Windows 98 users:

Click **Start** and point to **Settings**, then select **Control Panel**. Then double-click the **Scanners and Camera** icon. Select **EPSON Expression 1640XL** from the list when the Scanners and Cameras Properties dialog box appears, then click the **Properties** button. When the EPSON Expression 1640XL Properties dialog box appears, click the **Utility** tab and then the **Screen Calibration Utility** button.

For Windows 95 or Windows NT 4.0 users:

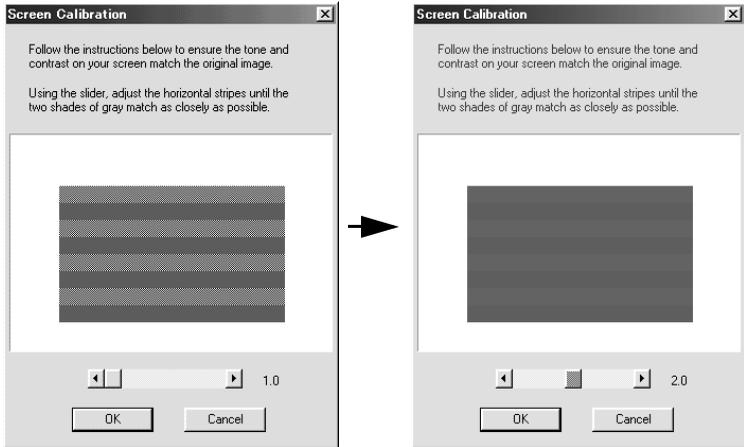
Click **Start** and point to **Settings**, then select **Control Panel**. Then double-click the **EPSON TWAIN Pro Network** icon and click the **Calibration Utility** button in the EPSON TWAIN Pro Network Setup dialog box.

For Macintosh users:

Open the EPSON Network Scanner folder and double-click the **EPSON Screen Calibration utility** icon. The Screen Calibration dialog box appears.

To calibrate your screen follow the steps below:

1. Move the slider to the right or left until the shades of gray of the two sets of horizontal stripes match.



Note:

View the screen from a slight distance. The gray stripes will not blend together perfectly; the objective is to make adjustments until the different tones match as closely as possible.

2. Click **OK** to register the calibration setting.

You will not need to change the screen calibration again as long as you continue to use the same monitor.

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Network Scanning Procedure

You need to perform the following procedures to use your EPSON scanner on a network and to send scanned images to a client computer.

1. Start the EPSON Scan Server software and specify which EPSON scanner is to be used from the scanner server PC.
2. Specify the scanner server PC to be used by using the EPSON TWAIN Pro Network setup dialog box in the Control Panel on the client computer.
3. Start the TWAIN-compliant application and open EPSON TWAIN Pro Network from the application on the client computer.

This chapter describes the above procedures in detail.

Starting EPSON Scan Server

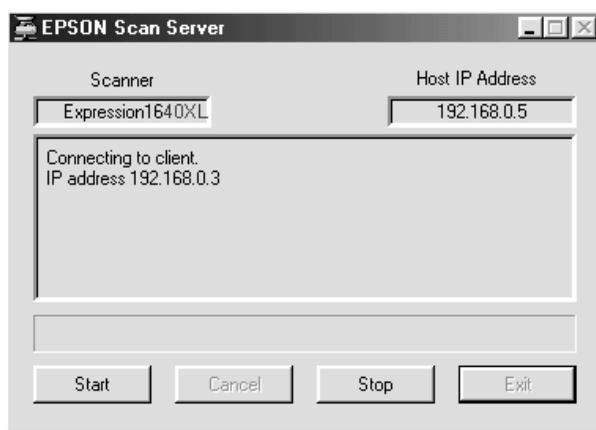
1. Turn on the scanner to be used for network scanning.
2. Turn on the scanner server PC.

The Enter Network Password dialog box appears.

3. Enter your password for the network in the Password box and click **OK**.

Windows will automatically launch EPSON Scan Server and display the EPSON Scan Server dialog box or its icon on the Windows taskbar (if you have included the software in the Start up folder of Windows).

To manually start EPSON Scan Server from Windows 2000, 98, 95, or NT 4.0, click **Start** and point to **EPSON Scan Server**, then select **EPSON Scan Server**.



Note:

- ❑ *Make sure no other interface is used.*
- ❑ *To exit EPSON Scan Server, click **Exit** on the EPSON Scan Server dialog box. Make sure that no client is using the scanner before attempting to quit.*

Starting EPSON TWAIN Pro Network

Note:

Windows 2000 or NT 4.0 users who use the NTFS file system and do not have Administrator privileges need to have permission to modify the following folder and subfolder:

C:\WINNT\TWAIN_32\EPFBPRON

1. From the client Computer, start the TWAIN-compliant application you want to use, such as Microsoft Imaging for Windows or Adobe Photoshop.

Refer to the User's manual of the application to check if the application supports TWAIN.

2. From the TWAIN-compliant application's menu, select **EPSON TWAIN Pro (32bit) Network** as the TWAIN data source and open EPSON TWAIN Pro Network using a command such as Acquire. The exact procedure depends on the application. Refer to the User's Guide or documentation included with the application.

The EPSON TWAIN Pro Network dialog box appears.



2

3. Select the appropriate scanning settings (Image Type or Resolution, etc.) for your purpose from this dialog box and click **OK**. For details on how to choose the correct settings, refer to “Understanding EPSON TWAIN Pro Features” in the *EPSON Online Expression 1640XL Scanner Software Reference Guide*.

Scanning an Image

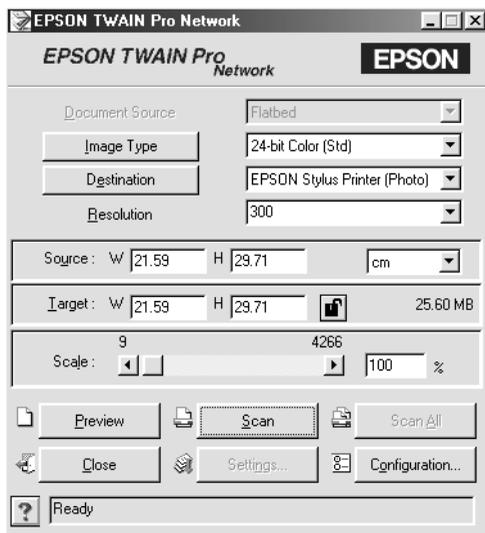
To use network scanning, all of devices (the EPSON scanner, the scanner server, and the client) must be on and EPSON Scan Server, a TWAIN-compliant application and EPSON TWAIN Pro Network must be started.

There are several ways to begin scanning a document. The basic method is to click the **Scan** button on the EPSON TWAIN Pro Network dialog box on the client. You can also start scanning by pushing the  Start button on the EPSON scanner or by clicking the **Start** button on the EPSON Scan Server dialog box.

Using the EPSON TWAIN Pro Network dialog box on the client computer

1. Place the document on the document table, or a stack of documents in the Automatic Document Feeder.
2. Start EPSON TWAIN Pro Network from a TWAIN-compliant application and choose the appropriate settings for your document in the EPSON TWAIN Pro Network dialog box on the client PC. If you use an optional Automatic Document Feeder or Transparency Unit, remember to select the appropriate setting for the Document Source. If necessary, click **Preview** and check the scanned image in the preview window.

- Click **Scan** or **Scan All** in the EPSON TWAIN Pro Network dialog box. **Scan All** is available only if you have drawn more than one marquee in the preview window.



Scanning starts and the Progress bar indicates how much of the document has been scanned.

Note:

- ❑ To cancel scanning, click **Cancel** on the Progress bar.
- ❑ When you are using the Automatic Document Feeder, do not open it until scanning is completed.

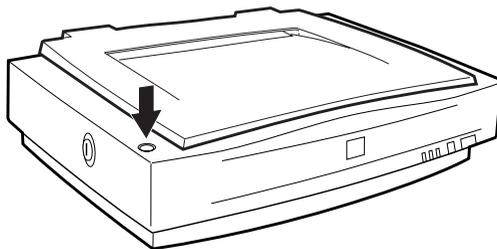
After the scanning is finished, the scanned image is displayed in the application.

- Remember to remove the document(s) from the scanner.

Using the Start button on the scanner

1. Start EPSON TWAIN Pro Network from a TWAIN-compliant application and choose appropriate settings for your document in the EPSON TWAIN Pro Network dialog box. If you use the Automatic Document Feeder or the Transparency Unit, remember to select an appropriate setting in the Document Source.
2. Place the document on the document table, or a stack of documents in the Automatic Document Feeder.
3. Press the  Start button on the scanner.

Press the start button



Scanning starts and the Progress bar indicates how much of the document has been scanned.

Note:

- To cancel scanning, click **Cancel** in the EPSON Scan Server dialog box on the server, or **Cancel** on the Progress bar from the client machine.
- Clicking **Stop** in the EPSON Scan Server dialog box breaks the connection between the scanner server and the client and exits EPSON TWAIN Pro Network on the client. To start scanning again, you will have to restart EPSON TWAIN Pro Network on the client.
- When you are using the Automatic Document Feeder, do not open it until scanning is completed.

4. After the scanning is finished, remember to remove the document(s) from the scanner.

When you return to the client Computer, the scanned images will already be opened in the target application.

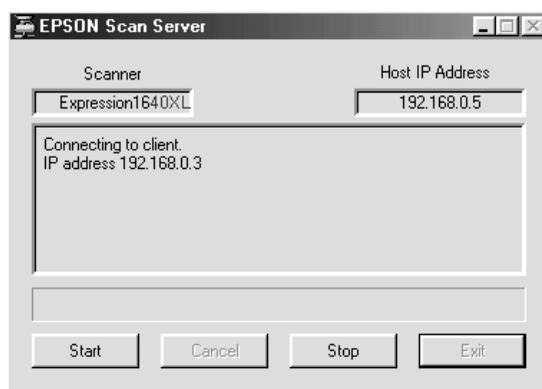
Note:

When you are using EPSON Scanner Monitor (in Windows 95, Windows NT 4.0) or Scanner Events (in Windows 2000, Windows 98), starting EPSON Scan Server disables those functions, so pressing the  Start button does not activate those functions. After closing EPSON Scan Server, you can then start EPSON Scanner Monitor.

Using the Start button in the EPSON Scan Server dialog box

1. Start EPSON TWAIN Pro Network from a TWAIN-compliant application and choose appropriate settings for your document in the EPSON TWAIN Pro Network dialog box. If you use the Automatic Document Feeder or the Transparency Unit, remember to select an appropriate setting in the Document Source.
2. Place the document on the document table, or a stack of documents in the Automatic Document Feeder.

3. Click the **Start** button in the EPSON Scan Server dialog box.



Scanning starts and the Progress bar indicates how much of the document has been scanned.

Note:

- To cancel scanning, click **Cancel** in the EPSON Scan Server dialog box on the scanner server PC.*
 - Clicking **Stop** in the EPSON Scan Server dialog box breaks the connection between the scanner server and the client, and exits EPSON TWAIN Pro Network on the client. To start scanning again, you will have to restart EPSON TWAIN Pro Network on the client.*
 - When you are using the Automatic Document Feeder, do not open it until scanning is completed.*
4. After scanning is finished, remember to remove the document(s) from the scanner.

When you return to the client PC, the scanned images will already be opened in the target application.

Getting Information From Online Help

Online Help is available from the main dialog box of EPSON TWAIN Pro Network. You can get information about the scanning procedure, how to choose settings, and other topics.

To display Online Help on the client computer, click **?** or **Help** button in the EPSON TWAIN Pro Network dialog box.

The Help for EPSON TWAIN Pro Network window appears.

Chapter 3

Troubleshooting

Problems and Solutions3-2

3

Problems and Solutions

Most problems you will encounter while operating your scanner and software have simple solutions. Read the appropriate section to find the problem, then follow the recommended steps.

Refer also to the *Online Reference Guide* for solutions to problems with the appearance of scanned images.

If you cannot find the solution to your problem below, contact your dealer or a qualified customer support person for assistance.

You cannot install EPSON TWAIN Pro Network and/or EPSON Scan Server
--

Cause	What to do
Incorrect system configuration	Check that both your computer and operating system match the system requirements on page 1-2. Make sure your computer has enough memory (RAM) to run the application.

For Windows 98 and Windows 2000:
Status: unavailable appears under the **General** tab of the **EPSON Expression 1640XL Properties** dialog box.

For Windows 95 and NT 4.0:
The scanner does not appear in the Scanner Selection box in the EPSON Scan Server setup dialog box.

Cause	What to do
Connection problem	Turn off the scanner and computer and check that they are connected properly.
Unavailable scanner	Make sure that a scanner supported by EPSON Scan Server and EPSON TWAIN Pro Network is connected to the scanner server PC.
SCSI ID number conflict	Change the scanner's SCSI ID number to one that is not being used by any other SCSI device.
Connection sequence problem	Check the connection sequence and make sure the scanner's terminator switch is set correctly. Refer to the <i>User's Guide</i> that came with your scanner for details.
(Windows 2000 and Windows 98) EPSON TWAIN Pro is not installed on the scanner server PC	Install EPSON TWAIN Pro (Version 1.75 or later) on the scanner server (the PC which is connected to the EPSON scanner).

You cannot start up EPSON Scan Server.

Cause	What to do
Scanner is off	Turn on the scanner and then your computer.
Connection problem	Turn off the scanner and computer and check that they are connected properly.
Cable problem	Make sure the interface cable meets the requirements of your interface board. See the documentation that came with the interface board.
Interface board problem	Make sure the interface board is installed correctly.
Unavailable scanner	Make sure that a scanner supported by EPSON Scan Server and EPSON TWAIN Pro Network is connected to the scanner server PC.
(Windows 2000 and Windows 98) EPSON TWAIN Pro is not installed on the scanner server PC	Install EPSON TWAIN Pro (version 1.75 or later) on the scanner server (the PC which is connected to the EPSON scanner).

You cannot select optional equipment for your scanner.

Cause	What to do
Installation problem	Make sure the optional equipment is installed correctly. Refer to the documentation that came with the equipment for details.

You cannot scan from the Automatic Document Feeder.

Cause	What to do
The Document Source setting in EPSON TWAIN Pro Network is incorrect.	Make sure Auto Document Feeder is selected.
The Automatic Document Feeder is open.	Close the Automatic Document Feeder and try again. If the Automatic Document Feeder is opened while scanning, remove any jammed paper, reload any document which has not yet been scanned and restart EPSON TWAIN Pro Network.
Paper is jammed.	Take the jammed paper out and reload the document, then restart EPSON TWAIN Pro Network.

EPSON TWAIN Pro Network dialog box does not appear on the client machine when you try to start EPSON TWAIN Pro Network from a TWAIN-compliant application.

Cause	What to do
Scanner and/or scanner server is off	Turn on the scanner then the scanner server.
Connection problem	Make sure that TCP/IP is selected as the networking protocol. Refer to “Installing the TCP/IP protocol” in the Appendix of this guide.
Network cable problem	Make sure that the cables which connect the EPSON scanner, the scanner server PC and the client PC meet system requirements and are properly connected.
Network interface card problem	Make sure the interface card is installed correctly.
IP address for the scanner server PC is not entered in the EPSON TWAIN Pro Network setup dialog box or incorrect IP address is entered.	Enter the correct IP address in the EPSON TWAIN Pro Network setup dialog box.
Host name is entered instead of the IP address for the Scanner Server PC in the EPSON TWAIN Pro Network setup dialog box where no network naming service is available.	Make sure that at least one naming service, such as DNS, WINS, or LMHOSTS, is used in your network. Otherwise use the IP address to specify the Scanner Server PC in the TWAIN Pro setup dialog box.

Network connection is terminated before the scanned image is transferred to the client machine.

Cause	What to do
Timed out	Check the time out setting and increase the value, if necessary. Refer to page 1-18 of this manual to change the time out setting.

Scanner Server PC Setup

Setting up the Scanner Server PC A-2
 Installing the TCP/IP protocol (Windows 2000) A-2
 Installing the TCP/IP protocol (Windows 98, 95) A-6
 Installing the TCP/IP protocol (Windows NT 4.0) A-8
 Setting the scanner server PC's IP address A-11



Setting up the Scanner Server PC

To allow networking, the scanner server PC and the client PCs in the network require a Network Interface Card and a Network Interface Card (NIC) driver. Install the Network Interface Card and Network Interface Card (NIC) driver in the scanner server and the clients. For installation procedures, refer to the corresponding manuals included with the card.

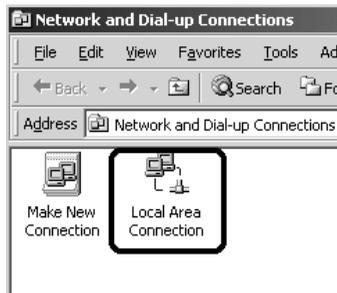
Installing the TCP/IP protocol (Windows 2000)

To install the TCP/IP protocol on the scanner server PC and client PCs on the network, follow the instructions below.

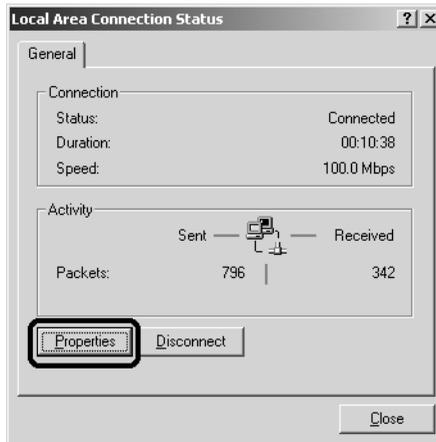
1. Right-click the **My Network Places** icon and select **Properties**.



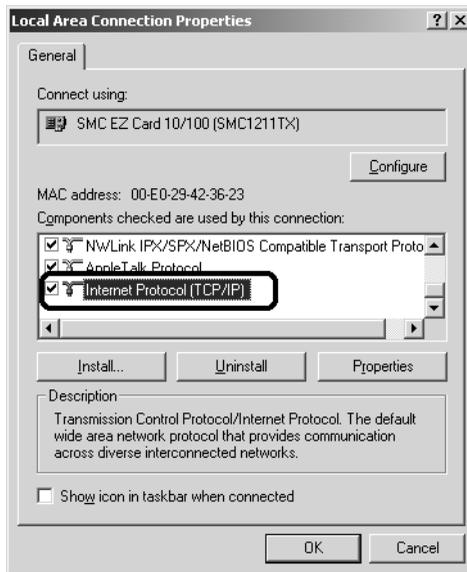
2. Double-click **Local Area Connection**.



3. Click **Property**.



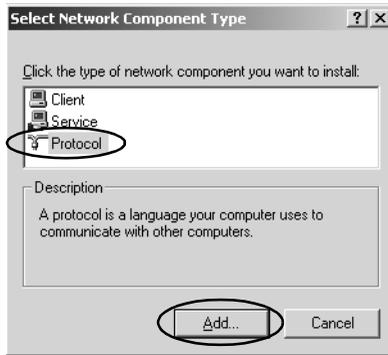
4. Check that **Internet Protocol (TCP/IP)** is included in the **Local Area Connection Properties** list box.



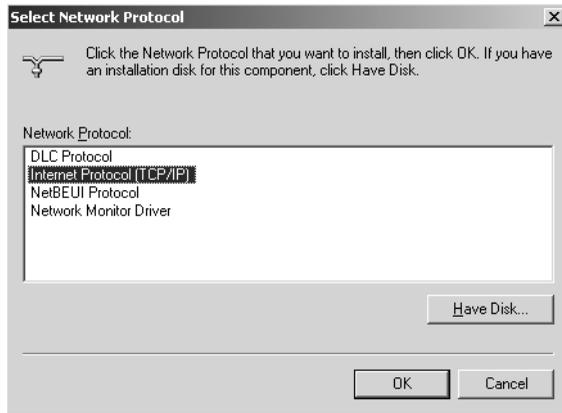
If the Internet Protocol (TCP/IP) appears in the list box, proceed to “Setting the scanner server PC’s IP address” on page A-11. Otherwise, proceed to step 5.

5. Click **Install**. The Select Network Component Type box appears.

6. Select **Protocol** from the list and click **Add**.



7. Select **Internet Protocol (TCP/IP)** in the **Network Protocol** list box and click **OK**.

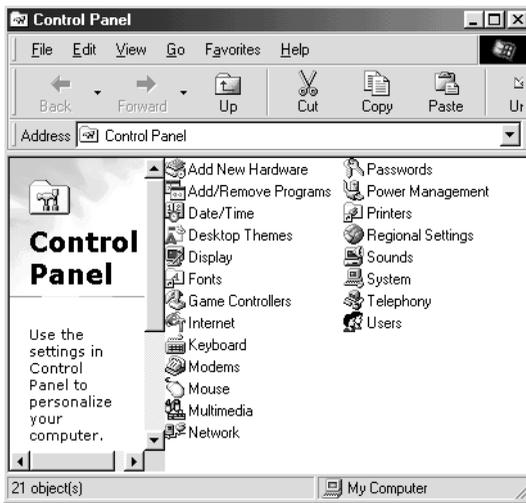


8. Check that **Internet Protocol** is installed and click **Close**. After you finish this setup, proceed to "Setting the scanner server PC's IP address" on page A-11.

Installing the TCP/IP protocol (Windows 98, 95)

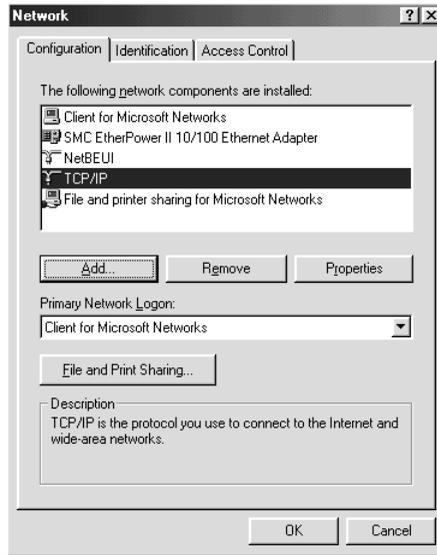
To install the TCP/IP protocol on the scanner server PC and client PCs in the network:

1. Click **Start** and point to **Settings**, then select **Control Panel**. The Control Panel window appears.



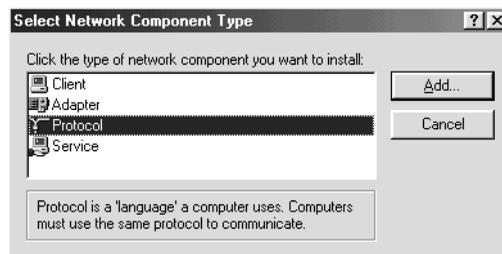
2. Double-click the **Network** icon in the Control Panel window. The Network dialog box appears.
3. Click the **Configuration** tab to bring it to the top of the dialog box.

4. Check that TCP/IP protocol is included in the **The following network components are installed** list box.

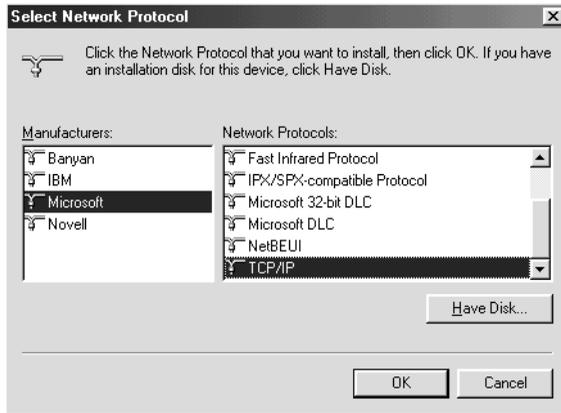


If the TCP/IP protocol appears in the list box, proceed to “Setting the scanner server PC’s IP address” on page A-11. Otherwise, proceed to step 5.

5. Click **Add**. The Select Network Component Type dialog box appears.
6. Select **Protocol** from the list and click **Add**.



7. Select **Microsoft** from Manufacturers box and **TCP/IP** from Network Protocols, and click **OK**.



8. Follow the instructions displayed on the screen. After you finish this step, proceed to “Setting the scanner server PC's IP address” on page A-11.

Installing the TCP/IP protocol (Windows NT 4.0)

To install the TCP/IP protocol on the scanner server PC and client PCs in the network:

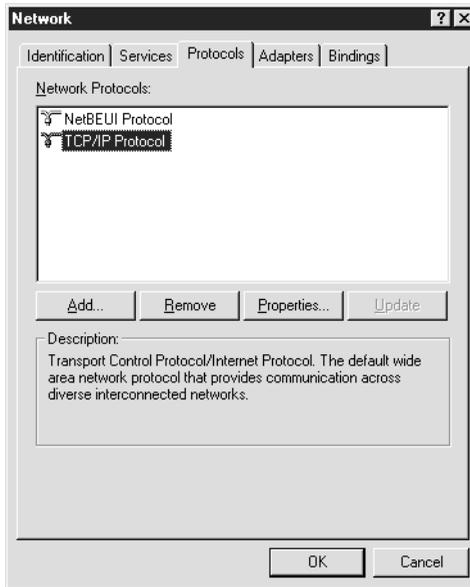
1. Click **Start** and point to **Settings**, then select **Control Panel**. The Control Panel window appears.

2. Double-click the **Network** icon in the Control Panel window.



3. Click the **Protocols** tab to bring it to the top of the dialog box.

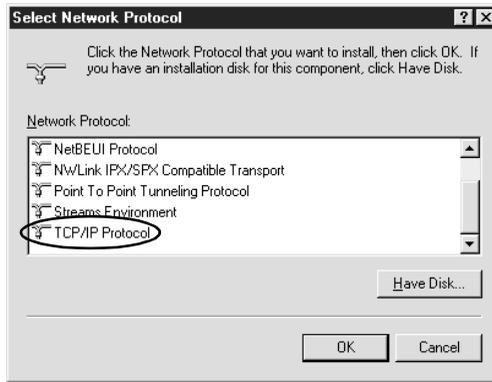
4. Check that TCP/IP protocol is included in the Network Protocols: list box.



If TCP/IP already appears in the list box, proceed to “Setting the scanner server PC's IP address” on page A-11. Otherwise, proceed to step 5.

5. Click **Add**. The Select Network Protocol dialog box appears.

6. Select **TCP/IP Protocol** from the list and click **OK**.



7. Follow the instructions displayed on the screen. After you finish this step, proceed to “Setting the scanner server PC's IP address” below.

Setting the scanner server PC's IP address

To use EPSON scanners in a network environment, you need to assign IP addresses to the scanner server and client computers.

If EPSON scanners are installed on an internal LAN (Local Area Network), and not connected to the Internet, the following IP addresses can be assigned to the scanner server.

Note:

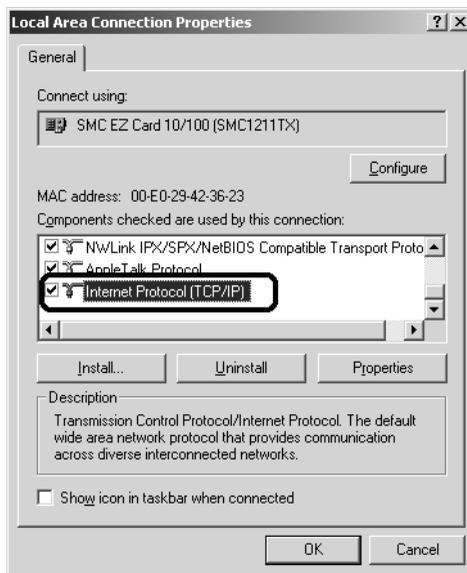
If you use IP addresses from these ranges, you will not be able to connect this LAN to the Internet in the future without changing the IP addresses.

10.0.0.0 - 10.255.255.255
172.16.0.0 - 172.31.255.255
192.168.0.0 - 192.168.255.255

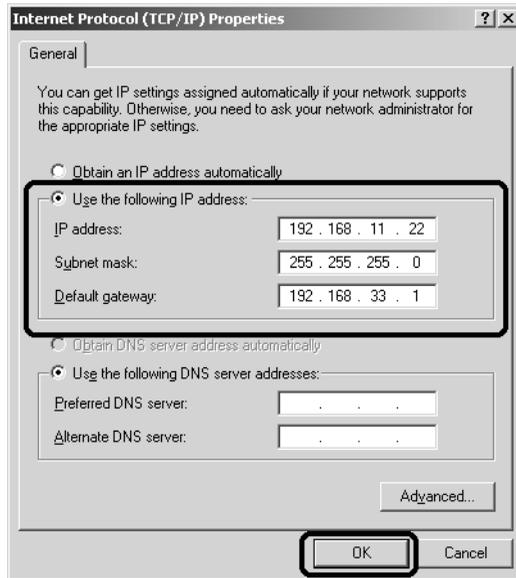
If you plan to use a scanner server PC in a network connected to the Internet, you should acquire a formal IP address for the scanner server PC from the Internet organization of your country.

Assigning an IP address to a scanner server PC on Windows 2000

1. Right-click the **My Network Places** icon, then select **Properties** and double-click **Local Area Connection**.
2. Click **Property**, and then double-click **Internet Protocol (TCP/IP)**.
3. Make sure that **Internet Protocol (TCP/IP)** is included in the **Local Area Connection Properties** list box.



4. Select **Use the following IP address**, then enter the IP address. Click **OK** to close the dialog box.



Note:

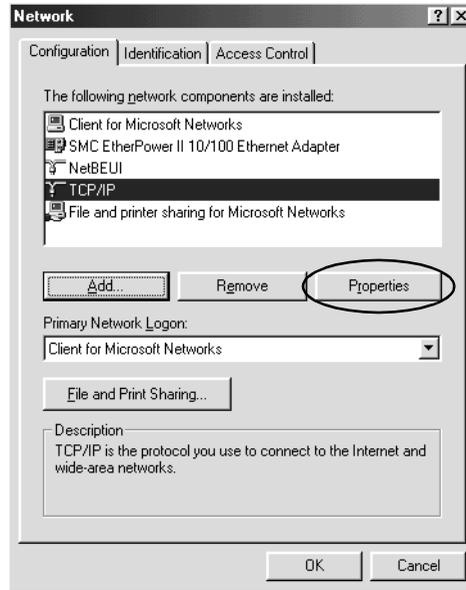
- Make the settings appropriate for your network.*
 - Confirm the IP address and other network settings with your network administrator.*
5. Click **OK** to close the Local Area Connection Properties dialog box, then click **Close** to close the Local Area Connection Status dialog box.

Assigning an IP address to a scanner server PC on Windows 98, 95

1. Click **Start** and point to **Setting**, then select **Control Panel** and double-click the **Network** icon in the Control Panel window.

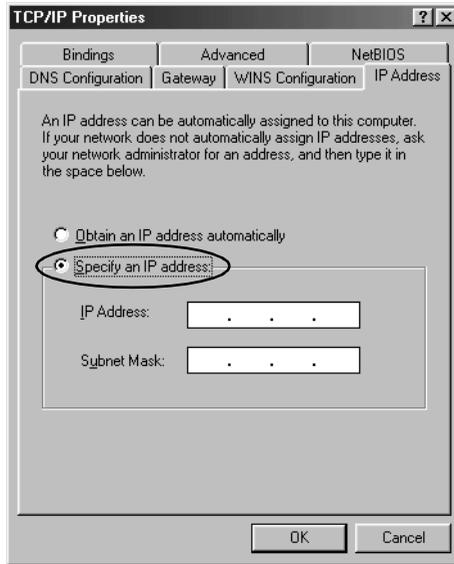
The Network dialog box appears with Configuration tab on the top.

2. Select **TCP/IP** in the list box and click **Properties**. The TCP/IP Properties dialog box appears.



3. Click the **IP Address** tab. The IP Address dialog box appears on the top.

4. If you are using a DHCP server in your network, you can assign an IP address to your scanner server PC automatically by selecting **Obtain an IP address automatically** and clicking **OK**. To manually assign an IP address, select **Specify IP address** then enter the IP Address and Subnet Mask. Click **OK**.



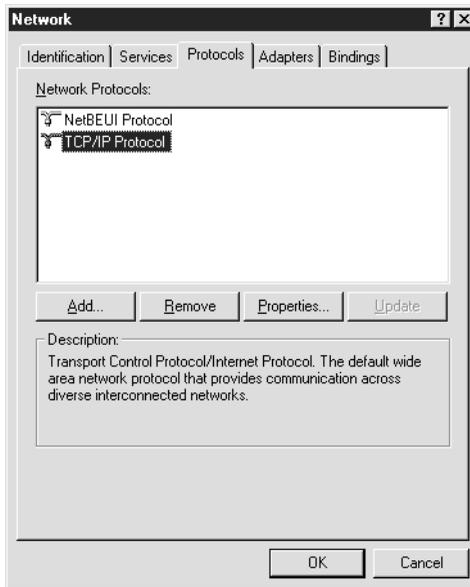
Assigning an IP address to a scanner server PC on Windows NT 4.0

1. Click **Start** and point to **Settings**, then select **Control Panel** and double-click the **Network** icon in the Control Panel window.

The Network dialog box appears with the Identification tab on the top.

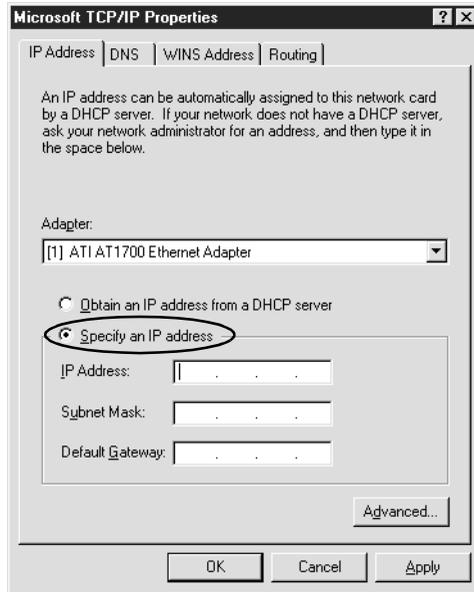
2. Click the **Protocols** tab.

3. Select **TCP/IP Protocol** in the list box and click **Properties....**



The Microsoft TCP/IP Properties dialog box appears.

- If you are using a DHCP server in your network, you can assign an IP address to your scanner server PC by selecting **Obtain an IP address from DHCP server** and clicking **OK**. To manually assign an IP address, select **Specify an IP address** then enter the IP Address, Subnet Mask and Default Gateway. Click **OK**.



Glossary

bit

Short for binary digit. The smallest unit of data in computer processing. A bit can represent two values: on and off, or 1 and 0.

bit/pixel

The unit that indicates the number of bits allocated for a pixel. The larger the bit value, the more detail of a pixel will be reproduced.

daisy chain

A SCSI bus arrangement that allows several devices to be connected simultaneously in a line to a single computer. See SCSI.

default

A set of values used when no other selections have been made. These are sometimes called factory defaults if the original values have not been changed since the scanner left the factory.

Default Gateway (Address)

The IP address of a special device used to route data from one part of a network using TCP/IP to another. See also IP address, TCP/IP, and Internet.

DHCP

Dynamic Host Configuration Protocol, A TCP/IP network protocol that enables hosts to obtain temporary IP addresses from one or more centrally administered servers.

DHCP server

Dynamic Host Configuration Protocol server, A computer which has been configured to respond to DHCP requests from other computers on the network.

DNS

Domain Name System, a naming service which allows the looking up of IP addresses based on host (domain) names.

document

The item, such as a sheet of paper or a book, that is placed on the document table for the scanner to read.

dpi

Short for dots per inch. A unit of measurement for resolution. The higher the value, the higher the resolution.

interface

A piece of hardware, a method, or a standard used for connection between or among computer devices.

Internet

A worldwide network of computers and communication devices, the largest of its kind, originally conceived as a research project of the US government. The Internet is composed of many different types of connections, including electrical and fiber optic cabling as well as wireless communications.

IP address

Internet Protocol address, A numeric address which uniquely identifies a computer connected to a network using TCP/IP, such as the Internet. See also Internet and TCP/IP.

Network Interface Card

A name for the adapter (printed circuit board), installed in a PC, that enables it to communicate over a LAN.

LAN

Short for Local Area Network, a computer network in which the attached devices are in close proximity (like in the same office or building).

LMHOSTS

A file of IP addresses and their associated host (domain) names. An IP address and its associated host (domain) name can be found by referring to this file.

port

An interface channel through which data is transmitted between devices.

scan

An operation performed by the sensor and the carriage. The image is divided into pixels by scanning.

scanning area

The physical size of the image that can be scanned by the scanner.

screen calibration

Adjustment of the monitor display to reproduce as closely as possible the original image data.

SCSI

Small Computer System Interface. This is one method used to connect your computer to peripherals such as scanners, hard disk drives, CD-ROM drives, and others.

SCSI ID

The numbers that all devices in a SCSI connection (see daisy chain) use to identify each other. If the same ID number is used by two devices in the same daisy chain, the devices cannot operate properly.

Subnet mask

A numeric designation, with the same format as an IP address, which determines how much of an IP address is used to partition a network using TCP/IP into smaller entities called subnets. See also IP address, TCP/IP, and Internet.

TCP/IP

A widely used family of protocols for communicating data between computers in a network.

USB

Universal Serial Bus. Enables users to connect up to 127 peripheral devices (such as keyboards, mice, printers and scanners) to the computer through a single, general purpose port. The use of USB hubs allows you to add additional ports.

WINS

Windows Internet Naming Service, a naming service which allows the looking up of IP addresses based on host (domain) names.

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