

# 3

## Setting Up and Configuring New Systems

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### Objectives

After completing this chapter, you should be able to:

- Set up your system for Windows® 2000 Professional
- Gather information for network configuration.
- Connect and configure a 3070 MS Windows® system to a LAN.

### Prerequisites

- Experience administering NT® or MS Windows® operating systems.

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## Preparing to Set Up a System

Setting up a system involves establishing a computer name, user account, and both Administrator and user passwords. Use the Windows 2000 Setup Wizard to set up your system.

If you plan to connect your computer to a network, you must configure the appropriate Local Area Connections in Network and Dial-up Connections before connecting to your network.

After configuring Network and Dial-up Connections, use the Network Identification Wizard and follow the on-screen instructions to ensure that your system is recognized by your network.

Use this chapter to gather configuration information from the network administrator. Then, use this information to complete the tasks in the Setup and Network Identification Wizards.

### NOTE

If you have a new test system that includes a testhead, an Agilent customer engineer (CE) or system engineer (SE) should be involved in the set-up.

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## Information for Windows 2000 Setup

The first time you start your system, the Windows 2000 Setup Wizard requests information to set up your computer. [Table 3-1](#) summarizes the information you may need to complete the Setup Wizard.

**Table 3-1** Setup Information

Information	Description
<b>Product Key</b>	A 25-character key that uniquely identifies your copy of Windows 2000 Professional.
<b>NOTE</b>	Agilent sets up product key information when you purchase a complete 3070 system.
<b>Computer Name</b>	A unique name that identifies your computer system on a network.
<b>Administrator Password</b>	A password that provides access to the Administrator account for your computer with full permissions and control.

## Setup Wizard Tasks

The Setup Wizard provides on-screen instructions to help you complete the following tasks:

- Accept or customize Regional Settings.
- Enter your Name and Organization to personalize your software.
- Enter your Computer name and Administrator password.
- Change the Date/Time settings and time zone.

[Table 3-2](#) on page 3-4 describes how to set up MS Windows® 2000 Professional using the Setup Wizard.

### NOTE

For complete instructions on setting up your system, logging on, and setting up user accounts, see the **Windows® 2000 Professional Quick Start Guide**.

## Setting Up Windows 2000 Professional

Follow the procedure in [Table 3-2](#) to setup your Controller for Windows® 2000 Professional.


**Table 3-2** Setup Windows® 2000 Professional

Task	Step
1 Verify:	<ul style="list-style-type: none"> <li>All cable connections to the controller.</li> </ul>
2 Turn on power to the controller.	
3 Complete the Windows 2000 Setup Wizard tasks.	<p><b>a</b> Read the Welcome screen, then click <b>Next</b>.</p> <p><b>b</b> Accept or customize Regional Settings, then click <b>Next</b>.</p> <p><b>c</b> You can change the Regional Settings for numbers, currency, time, date, locale, and keyboard layout.</p> <p><b>d</b> Type your Name and the name of your Organization, then click <b>Next</b>.</p> <p><b>e</b> Type your Computer name and Administrator password, then click <b>Next</b>. This Administrator password is associated with the Administrator account that is local to your computer. This account and password provide full control of your computer. Do not forget this password.</p> <p><b>f</b> Set the correct Date &amp; Time and Time Zone, then click <b>Next</b>.</p> <p><b>g</b> Click <b>Finish</b>. The Setup Wizard will restart your computer and apply the new settings.</p>
<p><b>ADVICE</b></p> <p>To change the Administrator password: Point to <b>Settings &gt; Control Panel &gt; Users and Passwords</b>, choose Administrator from the User Name list, then press <b>Ctrl+Alt+Del</b> and select <b>Change Password</b>.</p>	
<p>Congratulations! You have configured the Windows controller for startup.</p>	

## Additional Setup Tasks

The tasks in **Table 3-3** should be completed before the system is ready for users.

**Table 3-3** Additional setup tasks

Task	Step
<p><b>1</b> Enter codewords to enable optional software features if necessary:</p>	<p>Agilent 3070 test development systems support standard and optional software features that are licensed with Software Certificates. Optional software features are enabled by entering unique codewords found on Software Certificates.</p> <p><b>CAUTION</b></p> <p> You must have a license to add codewords that enable optional software features.</p> <hr/> <p>Instructions for installing codewords are included with the software license included with the shipment or the optional software. Enter the codeword(s) exactly as appearing on the license.</p> <p>Also see the document <i>Installing Codewords on a 3070</i> (E1040-90000).</p>

**Table 3-3** Additional setup tasks

Task	Step
<b>2</b> Create a system recovery tape.	It is very important to make a full back up tape that can be used to recover your system in case of a disaster such as a disk crash. For instructions, see <a href="#">Making a Full Backup Tape</a> on page 4-8.  Re-establish the <code>bootptab</code> and <code>system config</code> files from backup files. If these files were not backed up, contact your Agilent systems engineer.
<b>3</b> Ensure that the Administrator password is not lost or forgotten.	

## Gathering Network Configuration Information

Use this section to gather the information needed to configure your computer for a LAN.

## Gather the Network Configuration Information

Complete the information in **Table 3-4** with the assistance of the network administrator or LAN manager.

**Table 3-4** Windows NT LAN configuration information


Task (Network Parameter)	Write System Information Here	Description
<b>1</b> Network Identification <ul style="list-style-type: none"> <li>■ Computer Name, or</li> <li>■ Hostname</li> </ul>	Domain Computer Name or Hostname: _____	A unique name that identifies your computer controller.
<b>2</b> Network Identification <ul style="list-style-type: none"> <li>■ Workgroup or Domain?</li> </ul>	Member of (select one): <input type="checkbox"/> Workgroup <input type="checkbox"/> Domain  Workgroup or Domain name _____	The Workgroup name is the name of a computer or group of computers on a peer-to-peer network.  The Domain name is the identifier for the server that controls and manages a group of computers on a client/server network.
<b>3</b> Network Identification <ul style="list-style-type: none"> <li>■ Create a Computer Account in the Domain</li> </ul>	Domain User Name: _____  Domain Password: _____	This is the name by which your computer is recognized by the network domain. See your network administrator to establish or verify domain account information.
<b>4</b> Will a DHCP Server be Used?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If yes, go to <b>Task 16 (Will Other Network Protocols Be Configured?)</b> .

**Table 3-4** Windows NT LAN configuration information (continued)

Task (Network Parameter)	Write System Information Here	Description
5 IP Address	IP Address:  _____ . _____ . _____ . _____	The IP address for this workstation.
	Subnet Mask:  _____ . _____ . _____ . _____	This number masks (ignores) information that is not specific to your local network.
	Default Gateway:  _____ . _____ . _____ . _____	IP address of the system that is used to route network traffic to other networks.
6 Advanced IP Addressing		Gateway(s) for any backup routers of network traffic.
■ Gateways	_____ . _____ . _____ . _____  _____ . _____ . _____ . _____	
7 Will DNS be Used? (Domain Name System)	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no, go to <b>Task 12 (Will WINS Be Used?)</b> .
8 DNS		The name by which this system will be known under DNS is the same as the <b>Computer Name, or</b> in <b>Task 1</b> .
■ Hostname	_____	
9 DNS		The domain in which this machine will operate. This domain is associated with your TCP/IP address.
■ Domain	_____	



**Table 3-4** Windows NT LAN configuration information (continued)

Task (Network Parameter)	Write System Information Here	Description
<b>10 DNS</b> <ul style="list-style-type: none"> <li>■ DNS Service Search Order</li> </ul>	_____ . _____ . _____ . _____  _____ . _____ . _____ . _____	IP Addresses (in order) of DNS servers that this system uses for resolving host names.
<b>11 DNS</b> <ul style="list-style-type: none"> <li>■ Domain Suffix Search Order</li> </ul>	_____  _____	Ordered domain suffix list used when searching for a host.
<b>12 Will WINS Be Used?</b> (Windows Internet Name Services)	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no, go to <b>Task 16 (Will Other Network Protocols Be Configured?)</b> .
<b>13 WINS Address</b> <ul style="list-style-type: none"> <li>■ Primary WINS Server</li> <li>■ Secondary WINS Server</li> </ul>	_____ . _____ . _____ . _____  _____ . _____ . _____ . _____	
<b>14 WINS Address</b> <ul style="list-style-type: none"> <li>■ Checkboxes</li> </ul>	<input type="checkbox"/> Enable DNS for Windows Resolution <input type="checkbox"/> Enable LMHOSTS Lookup	Check or uncheck either of these boxes as applicable.  <div style="background-color: yellow; padding: 5px;"> <p><b>CAUTION</b></p> <p> If configuring for DNS, check <b>Enable DNS for Windows Resolution</b>.</p> </div>

**Table 3-4** Windows NT LAN configuration information (continued)

Task (Network Parameter)	Write System Information Here	Description
15 WINS Address	_____	
■ Scope ID		
16 Will Other Network Protocols Be Configured?	<input type="checkbox"/> AppleTalk Protocol  <input type="checkbox"/> DLC Protocol  <input type="checkbox"/> NetBEUI Protocol  <input type="checkbox"/> NWLink IPX/SPX Compatible Transport <input type="checkbox"/> Point To Point Tunneling Protocol <input type="checkbox"/> Streams Environment	This list is not exhaustive; other protocols can be configured. Use this space to document other network protocol information.  _____  _____  _____  _____  _____

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## Network Components

Making a network requires the following basic hardware, software, and connections:

- **Network interface cards (NICs)**, or adapter cards - used to connect a computer to a file servers or workstations.
- **Cables** - used to connect the nodes on a LAN.
- **Physical topology** - the physical location of all computers on the network and the cabling system that connects them.
- **Servers** - the computer that manages and controls network resources.
- **Network Operating System** - Windows® 2000 Professional is the supported operating system for your 3070 MS Windows® system.
- **Network-based software** - programs that are accessed over the network. May include e-mail programs or standard software applications.

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## Agilent Software License Activation

### Codeword and License Management

Agilent will begin issuing license keys to replace the current codeword scheme for new 3070 features starting with software release 05.20p. At present, only new features will require the license key. This is the first step in a process that will eventually replace all Agilent 3070 codewords with license keys in future software releases.

### Required Tools and Materials

Before you contact Agilent to activate your software license key, you will need the following:

- Agilent 3070 software revision 05.20p or newer,
- entitlement certificate which contains the order number and certificate number,
- hardware (MAC) address of the target controller or test development station which will utilize the software activation key,
- Agilent serial number from your controller (if the controller was not supplied by Agilent, use the controller manufacturer's serial number),
- internet connection\*.

You will receive an Entitlement Certificate with a new system or when new features are purchased. You will need the information on the Entitlement Certificate to

\* If you cannot access the internet, call the Agilent Customer Support Center at 1-800-447-8378 for assistance.

redeem your license activation key on upgrades, new features, or for recovery.

#### NOTE

New systems shipped from the factory will have the software license keys installed and activated.

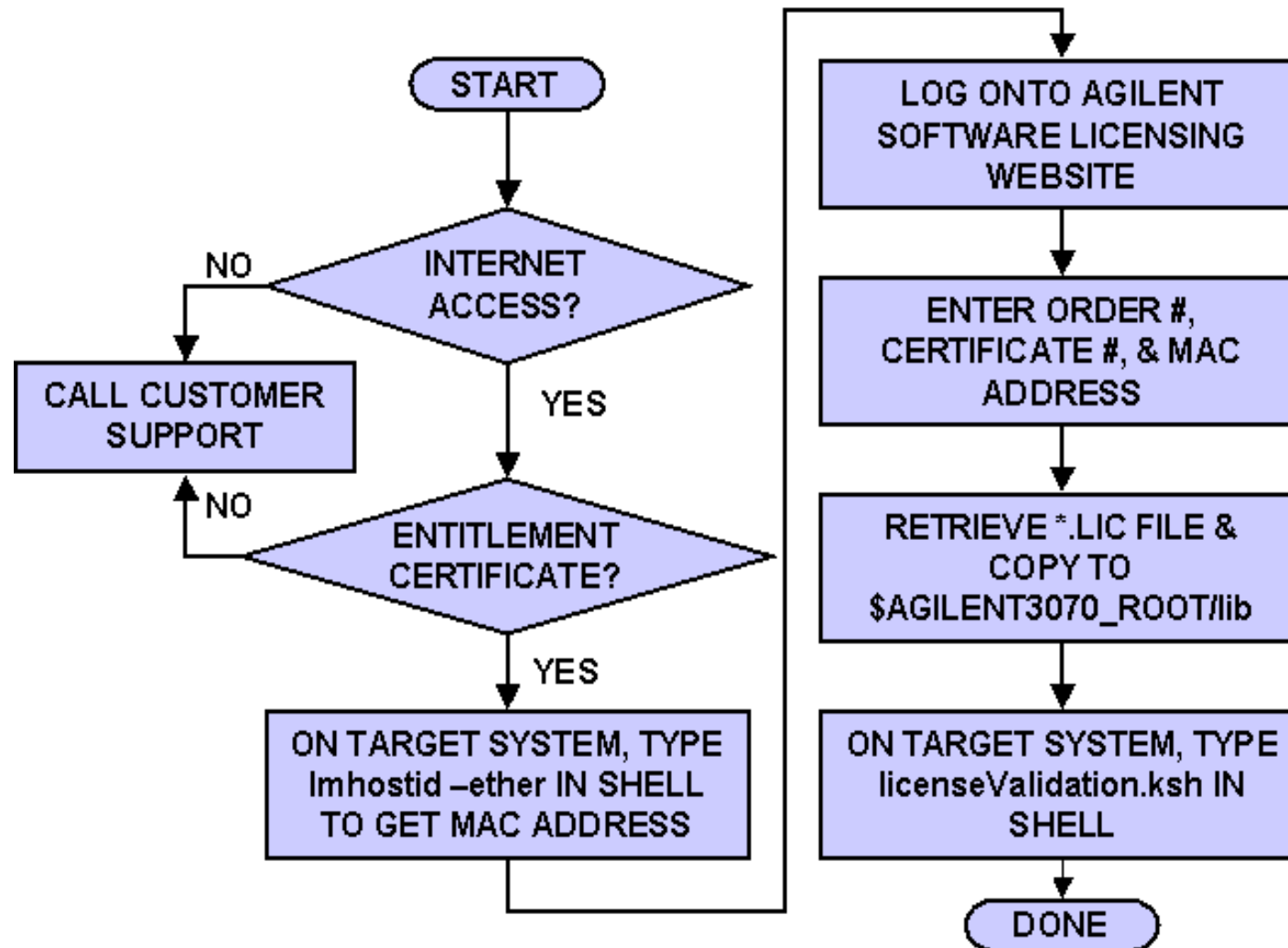
The Software Entitlement Certificate evidences Agilent Technologies' grant of the right to use the software products listed on the certificate. Please refer to your Software License and Software License Redemption Certificate for information regarding Agilent's Software Terms and Conditions of Use.

Each license redeemed from this certificate authorizes the use of the software product on one system controller or one test development system.

#### NOTE

The Entitlement Certificate is an important document - you will need to keep it for your records. You will need it to activate or recover your software licenses.

Figure 3-1 Software License Activation Process Flow Diagram



## Redeeming your Software License

To redeem your software license, perform these steps:

- 1 Acquire the target controller or test development system's hardware (MAC) address.
  - a Login to the 3070 controller or test development system as administrator. This must be the system where you intend to activate the license,
  - b Open a korn shell window and type `lmhostid -ether`. Hit Return,
  - c This command will return the hardware or MAC address for the targeted system. Write down and save the 12-character string that is displayed after  
The FLEXlm host ID of this machine is:  
You will need this string in step 2e.

### NOTE

The MAC Address (Media Access Control) is a hardware address that uniquely identifies each node of a network. Agilent Software Licensing takes the MAC address and locks the Software License Key to the targeted system controller or test development system.

- 2 Redeem the software entitlement certificate and receive your license activation key.
  - a From any computer with internet access, log onto the Agilent Software Licensing website at [www.agilent.com/find/softwarelicense](http://www.agilent.com/find/softwarelicense). Follow the instructions on the website to redeem your license. This website has excellent online help to assist you with redemption of your software license.

### NOTE

If you do not have Internet access or cannot contact Agilent through this website, contact the Agilent Customer Support Center at 1-800-447-8378 for assistance.

- b In the space provided, enter the Order Number from the Entitlement Certificate,
- c In the space provided, enter the Entitlement Certificate number. Hit Enter or select `Search`.
- d The next window will provide you with three options. Select option `I. Request license(s)` for one or more software products on one instrument or host computer. The next window will display your order number and software certificate at the top of the page.

- e Follow the instructions listed below the certification number. Where it says `Enter Node ID`, type the 12-character hardware (MAC) address for the target system which you recorded in **Step 1c**.
- f Enter the Agilent serial number from your controller (if the controller was not supplied by Agilent, use the controller manufacturer's serial number
- g In the space provided, enter an email address where you can retrieve the license file. You will receive the license file via this email address from `license_support@agilent.com`. The email will contain a message with instructions for installing the license file onto the 3070.

You may also view the license with your internet browser. Return to the main screen and select option `III: Get previously issued licenses for this order`.

### Software License Activation

- 3 Activate your Software License Key
  - a Open the email and save the attachment license key in the `$AGILENT3070_ROOT/lib` directory

on your 3070 controller or test development computer.

- b Rename the license file attachment using a unique name. For example you could use a date-name format like `agilent3070_<date>.lic`, where `<date>` is the `YYYYMMDDHHMM` (YYYY is the year, MM is the month; DD is the day and HHMM is the current time. Change the file extension to `.lic`.

#### NOTE

Ensure the License File ends with a `.lic` file name extension. If the file does not have a `.lic` extension, manually change it to `.lic`.

### Validate Software License Key

- 1 Run the 3070 Software License Validation Application by typing `licenseValidation.ksh` in a korn shell window. Hit return.
- 2 Select the Test License button. License file entries that have valid data are shown in green font. Invalid license file entries are highlighted in red font.
- 3 Select the `close` button or select to exit the 3070 Software License Validation application.

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## Software License Activation Troubleshooting

If for some reason you can no longer use the license key after activation, use the following recovery process.

Loss of the software key may be due to:

- hardware modification or replacement including controller, hard drive, LAN card, etc.
- inadvertent license file deletion,

- 1 Locate your software entitlement certificate and reconfirm your license activation key.
  - a From any computer with internet access, log onto the Agilent Software Licensing website at `www.agilent.com/find/softwarelicense`. Follow the instructions on the website to redeem your license.

### NOTE

If you do not have Internet access or cannot contact Agilent through this website, call your local Agilent representative or call the Agilent Customer Support Center at 1-800-447-8378 for assistance.

- b In the space provided, enter the Order Number from the Entitlement Certificate for the feature you wish to reactivate.

### NOTE

If you do not have the entitlement certificate and order number, you will not be able to retrieve your software activation key through the Agilent Software Licensing website. You will need to call the Agilent Customer Support Center at 1-800-447-8378 for assistance.

- c Enter the Entitlement Certificate number in the space provided. Hit Enter or select `Search`.
  - d Select option `III Get previously-issued licenses for this order number`.
  - e Right click on the file listed and choose `Save Target As` to retrieve the license file,
  - f save the license key file in the `$AGILENT3070_ROOT/lib` directory on your 3070 controller or test development computer.

### NOTE

This process will only work for the same MAC address to which the original license was submitted. If no license history is found or you cannot locate your entitlement certificate, contact your local Agilent representative or call the Agilent Customer Support Center at 1-800-447-8378 for assistance.



## Configuring a Network Adapter Card (Local Area Connection)

A 3070 MS Windows® system includes two network adapter cards: a 3Com Etherlink XL 10/100 PCI and a Realtek RTL8139(A)-based Fast Ethernet Adapter. Agilent configures the **Local Area Connection** for the 3Com Etherlink XL 10/100 PCI to connect only to the testhead. Never change these settings.

The **Local Area Connection** for the Realtek RTL8139(A)-based Fast Ethernet Adapter can be configured and connected to your site network. Contact your network administrator for assistance in configuring adapter cards and connecting to a site network.

**Table 3-5** describes how to configure a network adapter card (Local Area Connection 2).

### ADVICE

Gather the networking configuration information in **Table 3-4** before performing the procedure in **Table 3-5**.

**Table 3-5** Configuring and Connecting a Local Area Connection

Task	Step
1 Open the <b>Network and Dial-up Connections</b> window.	<p><b>a</b> On the Desktop, right-click <b>My Network Places</b>.</p> <p><b>b</b> Click <b>Properties</b>.</p>
2 Display the Local Area Connection 2 Properties.	<p><b>a</b> Right-click <b>Local Area Connection 2</b>,</p> <p><b>b</b> Click <b>Properties</b>.</p>

**Table 3-5** Configuring and Connecting a Local Area Connection (continued)

Task	Step
<p><b>3</b> Verify that the list of <b>Components checked are used by this connection:</b> includes:</p>	<ul style="list-style-type: none"> <li>• Client for Microsoft Networks</li> <li>• File and Printer Sharing for Microsoft Networks</li> <li>• NetBEUI Protocol (optional)</li> <li>• Internet Protocol (TCP/IP)</li> </ul> <div style="background-color: #e1f5fe; padding: 5px; margin-top: 10px;"> <p style="text-align: center;"><b>NOTE</b></p> <p style="text-align: center;">The Internet Protocol (TCP/IP) is required by the testhead controller.</p> </div>
<p><b>4</b> Specify IP Addresses.</p>	<p><b>a</b> Select <b>Internet Protocol (TCP/IP)</b>, then click <b>Properties</b>.</p> <p><b>b</b> Click <b>Obtain an IP address automatically</b>. Use this step if your domain server supports DHCP.</p> <p>If DHCP is not supported, manually enter IP address information:</p> <p>Click <b>Use the following IP address</b>, then type the <b>IP address</b>, <b>Subnet mask</b>, and <b>Default gateway</b> numbers.</p>
<p><b>5</b> Specify DNS server addresses.</p>	<p><b>a</b> Select <b>Obtain DNS server address automatically</b>, or</p> <p><b>b</b> Click <b>Use the following DNS server addresses:</b> and type the <b>Preferred DNS server</b> and an <b>Alternate DNS server</b>.</p>

**Table 3-5** Configuring and Connecting a Local Area Connection (continued)

Task	Step
<p><b>6</b> Add or edit configuration information.</p> <p><b>ADVICE</b> Contact your IT department for configuration information and assistance.</p>	<p>Click <b>Advanced</b> to add or edit:</p> <ul style="list-style-type: none"> <li>• IP addresses</li> <li>• Gateways</li> <li>• DNS server addresses</li> <li>• WINS addresses</li> <li>• or to specify security options.</li> </ul>
<p><b>7</b> Accept the configuration.</p>	<ul style="list-style-type: none"> <li>• Click <b>OK</b>.</li> </ul>
<p><b>8</b> Connect the LAN cable.</p>	<ul style="list-style-type: none"> <li>• Agilent provides an RJ45 LAN cable. Physically connect the LAN cable to your network connection.</li> </ul>

**Table 3-5** Configuring and Connecting a Local Area Connection (continued)

Task	Step
<p><b>9</b> Run the Network Identification Wizard.</p>	<p><b>a</b> Right-click <b>My Computer</b>, then click <b>Properties</b>.</p> <p><b>b</b> Click the <b>Network Identification</b> tab in the System Properties dialog box, then click <b>Network ID</b>.</p> <p><b>c</b> Enter the appropriate information in the <b>Network Identification Wizard</b>. This wizard identifies your computer to the network. Be prepared to enter the following information, as needed:</p> <ul style="list-style-type: none"> <li>■ Is this computer part of a network?</li> <li>■ What kind of network? (domain or workgroup?)</li> <li>■ User name</li> <li>■ Password</li> <li>■ User account domain</li> <li>■ Computer name</li> <li>■ Computer domain</li> <li>■ Workgroup name</li> </ul>
<p><b>10</b> Reboot the system.</p>	<p>After rebooting, verify the network connection. Contact your network administrator if you experience problems.</p>