

3

Setting-Up New Systems

In this Chapter...

- **Introduction**, 3-2
- **Gathering Configuration Information for UNIX Startup and Networking**, 3-3
- **Configuring the UNIX Controller**, 3-6
- **Agilent Software License Activation**, 3-10
- **Software License Activation Troubleshooting**, 3-14
- **Additional Setup Tasks**, 3-15
- **If You Experience Start-Up Problems**, 3-20
- **Using a PC as an X Terminal**, 3-22

For Help

HP-UX Reference

HP-UX reference information is available on the Internet at:

<http://docs.hp.com/index.html>

System Administrator Manager (SAM)

To start SAM, enter: `/usr/sbin/sam` at a shell window prompt.

For help inside of SAM:

- From the dialog, click **Help**.
- Press F1 for context-sensitive help on a specific field.

3070 Reference

3070 User and Service manuals are located on 3070 system controllers and on factory-supplied updates.

More Help

See **In Case of Difficulty** on page 10-1.

Introduction

When a 3070 UNIX system is booted for the first time or if software is reloaded, the system will prompt for system and networking information.

Use this chapter to help gather necessary information from the network administrator and to enter the information when prompted by the system.

Following the initial set-up, don't forget to do the additional tasks so that the system will be ready for users.

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.

If you have a test development system (that does not include a testhead), you will need to perform the set-up yourself.

Gathering Configuration Information for UNIX Startup and Networking

Use this section as a tool to gather necessary information from the network administrator so it can be entered in **Configuring the UNIX Controller** on page 3-6.

Choose from the two situations below and follow the associated instructions.

- If the UNIX-based controller WILL NOT be connected to a network:

Complete only the first two items (**Hostname (Required even if the system is non-networked)** and **IP Address**) in **Table 3-1**. Then continue with **Configuring the UNIX Controller** on page 3-6.

- If the UNIX-based controller WILL be connected to a network:

Complete **Table 3-1**. Then continue with **Configuring the UNIX Controller** on page 3-6.

CAUTION



Do not configure to a DHCP network server. Factory tests have shown this configuration to be unstable.

NOTE

DNS and NIS are the only supported network protocols for UNIX systems.

Table 3-1 HP-UX LAN configuration information


Task (Network Parameter)	Write System Information Here	Description
<p>CAUTION</p>		
<p> Consult with the network administrator. Incorrect entries can cause system and network conflicts and errors.</p>		
<p>1 Hostname (Required even if the system is non-networked)</p>	<p>_____</p>	<p>The name by which this controller will be known. It must contain no more than eight characters, contain only letters, numbers, underscore (_), or hyphen (-), and start with a letter.</p>
<p>NOTE</p>		
<p>Upper-case letters are not recommended. The first component of a host name should contain no more than eight characters, for compatibility with the <code>uname</code> command.</p>		
<p>2 IP Address (Required even if the system is non-networked)</p>	<p>_____ . _____ . _____ . _____</p>	<p>Supply a network IP address for this system OR If not connecting to a network, supply an IP address that will not be a conflict should this system should ever get connected to a network.</p>
<p>3 Will this system be connected to a network?</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Select either Yes or No. If selecting no, make no further entry in this table.</p>
<p>4 Subnetwork Mask</p>	<p>_____ . _____ . _____ . _____</p>	<p>The subnetwork mask address ignores information that is not specific to the local network.</p>
<p>5 Gateway Host Name</p>	<p>_____</p>	<p>The machine designated to connect outside of the subnet. If there is not a designated machine for this, use the Hostname (Required even if the system is non-networked) from Task 1.</p>


Table 3-1 HP-UX LAN configuration information (continued)

Task (Network Parameter)	Write System Information Here	Description
6 Gateway IP Address	_____ . _____ . _____ . _____	The address designated to connect outside of the subnet. If there is not a designated address for this, use the IP Address from Task 2 .
7 Local Domain Name	_____	The company domain name.
8 DNS Server Hostname (Domain Name System)	_____	If configuring DNS, the local network DNS server name. Do not complete if configuring for NIS.
9 DNS Server IP Address	_____ . _____ . _____ . _____	If configuring DNS, the local network DNS server IP address. Do not complete if configuring for NIS
10 NIS Domain Name	_____	If configuring NIS, the local NIS server name. Do not complete if configuring for DNS.
NOTE		
Most systems do not use NIS.		
11 Wait for NIS Server on Bootup?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If configuring NIS, select either Yes or No. Do not complete if configuring for DNS.
12 Will this TDS be a Font Server?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Select either Yes or No. Ask yourself, will X-terminals be served by this system?

Configuring the UNIX Controller

Follow the procedure in [Table 3-2](#) even if not connecting to a site network.

CAUTION

 Check the entries carefully before entering them. Errors may be hard to repair.

CAUTION


 The testhead controller connects to a required private LAN (lan1). This LAN controls the testhead and is automatically pre-configured in the 3070 software load. DO NOT alter this LAN configuration.

Table 3-2 Configuring the UNIX controller


Task	Step
1 Verify:	<ul style="list-style-type: none"> All cable connections to the controller.
2 Power-on the controller.	
<p>NOTE</p> <p>The following steps can be modified later by entering at a shell window prompt:</p> <pre>/sbin/set_parms addl_netwrk</pre>	
3 In the Set System Parameters window:	<ul style="list-style-type: none"> When prompted with –Are you ready to link this system to a network? Click Yes. <p>CAUTION</p> <p> Choose Yes even if this system will not be networked.</p>

Table 3-2 Configuring the UNIX controller


Task	Step
<p>4 Verify that Table 3-1 on page 3-4 has been completed, then in the Required Information window:</p>	<ul style="list-style-type: none"> Click Yes, Continue.
<p>5 In the System Hostname window:</p>	<p>a Type the Hostname: from Task 1 of Table 3-1 then click OK.</p> <p>b Confirm the entry.</p>
<p>6 In the Time Zone window:</p>	<p>a Follow the instructions given, then click OK.</p> <p>b Confirm the entries.</p> <div data-bbox="911 813 1955 932" style="background-color: #e1f5fe; padding: 5px;"> <p style="text-align: center;">NOTE</p> <p style="text-align: center;">These parameters will require adjustment.</p> </div>
<p>7 In the Set Root Password window:</p>	<p>a Click Yes then enter the <code><root password></code>.</p> <p>b Confirm the entry.</p> <div data-bbox="911 1089 1955 1208" style="background-color: #fff9c4; padding: 5px;"> <p style="text-align: center;">CAUTION</p> <p> To maintain network security, enter the <code><root password></code> now.</p> </div>
<p>8 In the System Internet Address window:</p>	<p>a Type the IP Address from Task 2 of Table 3-1 then click OK.</p> <p>b Confirm the entry.</p>

Table 3-2 Configuring the UNIX controller

Task	Step
<p>9 Reference Task 3 in Table 3-1 to determine if this system will be connected to a network, then in the Additional Network Parameters window:</p>	<p>Select from the following two choices:</p> <ul style="list-style-type: none"> • If No is indicated, click No, allow the system to complete startup and display a CDE (common desktop environment) login window, then continue with Additional Setup Tasks on page 3-15. • If Yes is indicated, click Yes then continue with the next step.
<p>10 In the Subnetwork Mask and Gateway window:</p>	<p>a Enter the:</p> <ol style="list-style-type: none"> 1) Subnetwork Mask from Task 4 of Table 3-1. 2) Gateway Host Name from Task 5 of Table 3-1. 3) Gateway IP Address from Task 6 of Table 3-1. <p>b Click OK then confirm the entries.</p>
<p>11 For use in the Domain Name System window:</p>	<p>a Is data written in Task 8 of Table 3-1 (DNS Server Hostname)?</p> <ul style="list-style-type: none"> ■ If no, click Cancel and continue with step 12. ■ If yes, enter the: <ol style="list-style-type: none"> 1) Local Domain Name from Task 7 of Table 3-1. 2) DNS Server Host Name from Task 8 of Table 3-1. 3) DNS Server IP Address from Task 9 of Table 3-1. <p>b Click OK then confirm the entries.</p>

Table 3-2 Configuring the UNIX controller

Task	Step
NOTE	
A Cannot confirm name and address window may appear. Ignore it and click Close .	
12 For use in the Network Information Service window:	Is data written in on Task 10 of Table 3-1 (NIS Domain Name) ? <ul style="list-style-type: none"> • If no, click Cancel and continue with step 13. • If yes, enter the: <ol style="list-style-type: none"> 1) NIS Domain Name from Task 10 of Table 3-1. 2) Wait for NIS Server on Bootup button selection from Task 11 of Table 3-1.
13 For Use In the Configure Font Server window:	a From Task 12 of Table 3-1 , if Yes is indicated click Yes then confirm the entry. b If No is indicated, click No .
14 In the Unallocated Disk Space window:	<ul style="list-style-type: none"> • Note the message then click Close.
15 In the System Parameters window:	<ul style="list-style-type: none"> • Note the message then click Close. Several HP-UX start-up messages and system test results will be displayed. After about one minute, the HP CDE login screen will appear.
Congratulations! You have completed configuring the UNIX controller for startup and networking.	

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 need the information on the Entitlement Certificate to redeem your license activation key. The Software Entitlement Certificate evidences Agilent Technologies' grant of the right to use the software

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

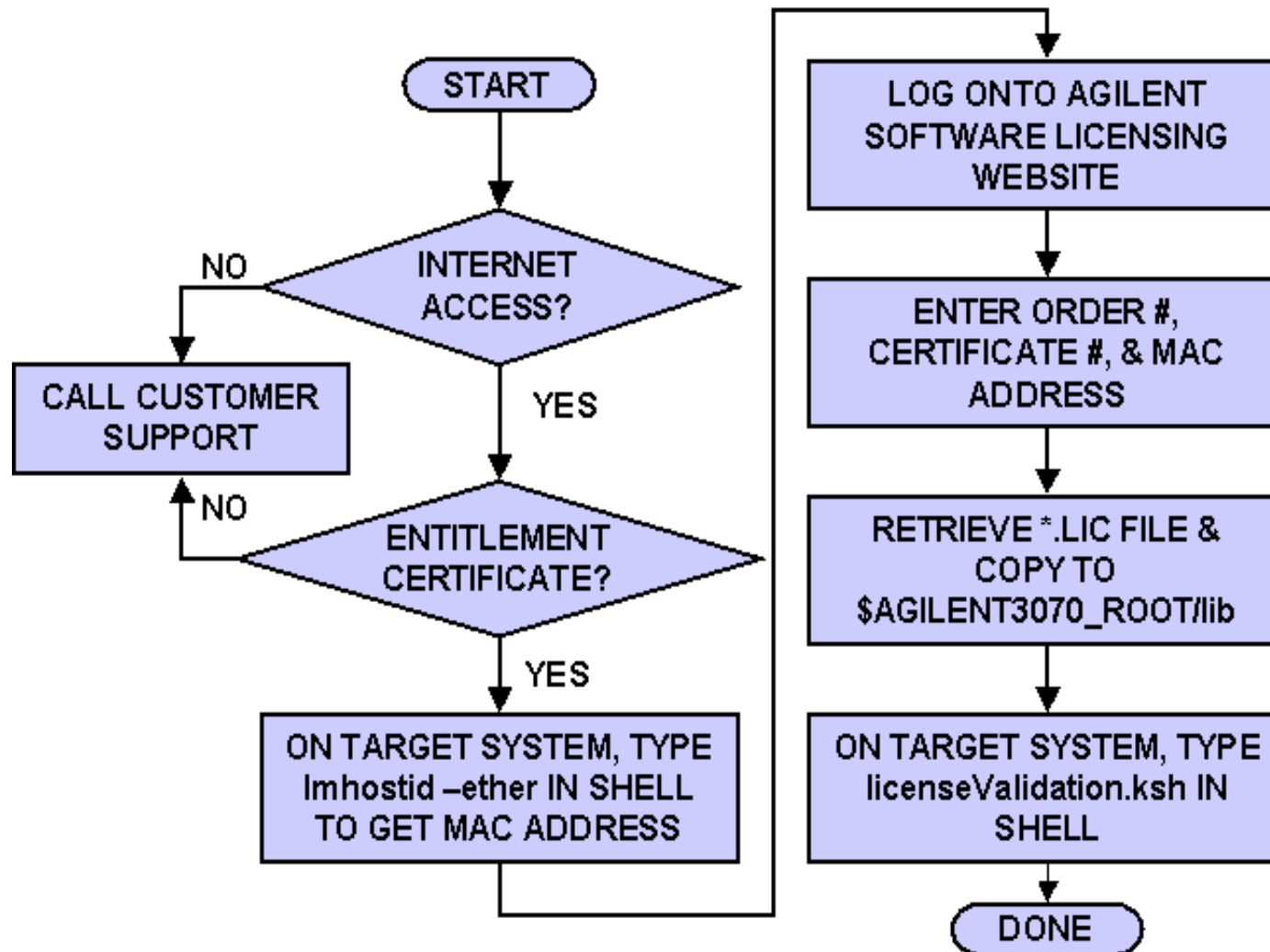
products listed on the certificate. Please refer to your Software License and Software License Redemption Certificate for information regarding Agilent's Software Terms and Conditions of Use.

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 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 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. 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 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.
- h 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. Ensure the file extension remains `.lic`.

NOTE

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

Validate Software License Key

- 1 Run the 3070 Software License Validation Application by typing `licenseValidation.ksh` in a 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.

Select the `Close` button or select to exit the 3070 Software License Validation application.

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.

Additional Setup Tasks

The tasks in [Table 3-3](#) must be completed for the system to be ready for users.

Table 3-3 Additional setup tasks

Task	Step
1 Login as <code>root</code>	
2 Check e-mail:	<p>Check for messages about disk space and the <code>set_parms</code> command.</p> <p>a Click on the mail icon in the CDE workspace manager (dashboard) at the bottom of the screen.</p> <p>Use the arrow keys to navigate between messages.</p> <p>b Click Mailbox: Close when finished.</p> <p>NOTE</p> <p>For more information on e-mail, reference the following URL:</p> <p>http://docs.hp.com/hpux/os/10.x/index.html</p>

Table 3-3 Additional setup tasks

Task	Step
3 Verify the networking name server:	<ul style="list-style-type: none">At a shell window prompt, enter: <code>nslookup <hostname></code> (use the hostname from Task 1 of Table 3-1 on page 3-4. You should see: <code>Using /etc/hosts on:<Hostname></code> <code>looking up FILES</code> <code>Name:<Hostname></code> <code>Address:<IP_Address></code>

Table 3-3 Additional setup tasks


Task	Step
<p>4 If recovering from a disaster recovery tape, perform these steps. Otherwise, continue with Task 5.</p>	<div data-bbox="884 375 1955 423" style="background-color: yellow; padding: 2px;">CAUTION</div> <div data-bbox="884 423 1955 488">  The testhead will not boot if these steps are not completed: </div> <hr/> <p>a Re-establish the <code>bootptab</code> and <code>testhead config</code> files from backup files:</p> <ol style="list-style-type: none"> 1) Place the <code>bootptab</code> file in the <code>/etc/bootptab</code> directory. 2) Place the <code>testhead config</code> file in the <code>/hp3070/diagnostics/th1</code> directory. <p>If these files were not backed up, contact your Agilent systems engineer (SE) (see In Case of Difficulty on page 10-1).</p> <p>b Re-establish login accounts for all users (use SAM).</p> <p>c Re-establish optional printer, plotter, or other peripheral connections (use SAM).</p> <div data-bbox="884 935 1955 984" style="background-color: lightblue; padding: 2px;">NOTE</div> <div data-bbox="884 984 1955 1049">Strip printer communication should already be established.</div>

Table 3-3 Additional setup tasks


Task	Step
<p>5 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>CAUTION</p> <p> You must have a license to add codewords that enable optional software features. See In Case of Difficulty if a license is needed.</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>6 Compile the testhead config file:</p>	<p>a Login as <code>service1</code></p> <p>b At a BT-BASIC window prompt, enter:</p> <pre>compile "/hp3070/diagnostics/th1/config"; testhead</pre> <p>NOTE</p> <p>Any returned error usually indicates an inconsistency between the installed codewords, the <code>bootptab</code> file, or the testhead <code>config</code> file. If the inconsistency cannot be resolved, contact your Agilent systems engineer (SE).</p>

Table 3-3 Additional setup tasks

Task	Step
<p>7 If recovering from a disaster recovery tape, perform these steps. Otherwise, continue with Task 8.</p>	<p>Cycle system power:</p> <p>a At a shell window prompt, enter:</p> <ol style="list-style-type: none"> 1) <code>cd /</code> 2) <code>shutdown -hy now</code> <p>b When the message OK to turn power off appears turn off power to the controller, then turn off power to the PDU.</p> <p>c Wait five seconds.</p> <p>d Turn power on to the PDU, then turn power on to the controller then let it boot.</p>
<p>8 Create a system recovery tape.</p>	<p>This is very important to do in case you have a future disaster such as a disk crash. Follow the instructions given in Making a System Recovery Tape on page 4-19.</p>
<p>9 Take steps to ensure that the root password is not lost or forgotten.</p>	


If You Experience Start-Up Problems

Follow the instructions in [Table 3-4](#) if you experience start-up problems.

Table 3-4 In case of start-up problems

Task	Step
<p>1 Select one of these two situations then follow the associated instructions:</p>	<ul style="list-style-type: none"> • If an HP CDE screen COMES UP: <ol style="list-style-type: none"> 1) Left-click on the terminal icon to open a window. 2) Move the cursor into the console terminal window then continue with Task 4. • If an HP CDE screen DOES NOT COME UP: <ol style="list-style-type: none"> 1) Reboot (cycle power if necessary). 2) Wait for the HP-UX Start-up in progress sequence, then push the keyboard Break key to get a login prompt. 3) Login as <code>root</code> then continue with Task 4.
<p>2 Check the contents of <code>/usr/adm/rc.log</code> for error messages:</p>	<ul style="list-style-type: none"> • Enter: <ol style="list-style-type: none"> 1) <code>cd /usr/adm</code> 2) <code>more rc.log</code>
<p>3 Check the system buffer for possible error messages (shown with status messages):</p>	<ul style="list-style-type: none"> • Enter: <pre>dmesg</pre>

Table 3-4 In case of start-up problems

Task	Step
<p>4 Take the appropriate action based on what you have learned.</p>	<p>CAUTION</p> <p> Get help if unsure of what to do! Any uncertain modifications can create further problems. For help, see In Case of Difficulty on page 10-1.</p>
<p>5 If any changes were made, enable them:</p>	<ul style="list-style-type: none"> • Enter: reboot

Using a PC as an X Terminal

A wealth of information is available on this subject and is available on the Internet from the Agilent 3070

Member Services Website at:

http://www.ate.agilent.com/emt/members/3070/answers_services/tech_papers/3070General/pc_xterm/index.shtml