Installation Guide

HP E4829A/B Parallel Cell Traffic Generator and Analyzer System

HP Part No. E4829-91010
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E0796

The HP E4829A/B System is a product of Böblingen Instruments Division.

Warranty Information

The warranty period for the HP E4829A/B Parallel Cell Traffic Generator and Analyzer System is 3 years.

All pods have one year warranty.

Quality Statement

The HP E4829A/B Parallel Cell Traffic Generator and Analyzer System is produced according to ISO 9001 quality system.

Notice

UNIX is a trademark of AT&T Inc. in the U. S. and other countries.
FLEXlm is a trademark of Globetrotter Software in the U. S. and other countries.

ESD Sensitivity

The HP E4829A/B System is sensitive to electrostatic discharges.

Please do not touch outputs which are marked with the ESD symbol without ESD protection.

It is recommended to operate the HP E4829A/B System in an ESD protected area to avoid malfunctions, or even damage of the instrument.

General Safety and Warranty Information

Notice

Copyright

Warranty

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Safety

This is a Safety Class 1 instrument (provided with terminal for protective earthing). Before applying power, verify that the correct safety precautions are taken (see the following warnings). In addition, note the external markings on the instrument that are described under **Safety Symbols**. Do not operate the instrument with its covers removed. Replace fuse only with specified type.

Warning

Before turning on the instrument, you must connect the protective earth terminal of the instrument to the protective earth conductor of the (mains) power cord. The mains plug must only be inserted in a socket outlet with a protective earth contact. Do not negate the protective action by using an extension power cord without a protective grounding conductor. Grounding one conductor of a two-conductor outlet is not sufficient protection.

Service instructions are for trained service personnel. To avoid dangerous electric shock, do not perform any service unless qualified to do so. Do not attempt internal service or adjustment unless another person, capable of rendering first aid and resuscitation, is present.

If you energize this instrument using an autotransformer (for voltage reduction) make sure that the common terminal is connected to the earth terminal of the power source.

Whenever it is likely that the ground protection is impaired, you must make the instrument inoperative and secure it against any unintended operation.

Do not operate the instrument in the presence of flammable gases or fumes. Operation of any electrical instrument in such an environment constitutes a definite safety hazard.

Do not install substitute parts or perform any unauthorized modification to the instrument.

Capacitors inside the instrument may retain a charge even if the instrument is disconnected from its source of supply.

Safety Symbols

The instrument is marked with this symbol when it is necessary for you to refer to the instruction manual in order to avoid the hazard of electric shock.

The instrument is marked with this symbol when it is necessary for you to refer to the instruction manual in order to protect against external voltage to the instrument.

The instrument is marked with this symbol when it is necessary for you to refer to the instruction manual in order to protect against electrostatic discharge to the instrument.

Protected conductor symbol

WARNING
The Warning symbol calls attention to a procedure, practice, or the like, which, if not correctly performed or adhered to, could result in personal injury or loss of life. Do not proceed beyond a Warning symbol until the indicated conditions are fully understood and met.

CAUTION
The Caution symbol calls attention to a procedure, practice, or the like, which, if not correctly performed or adhered to, could result in damage to or destruction of part or all of the equipment. Do not proceed beyond a Caution symbol until the indicated conditions are fully understood and met.

Notice Continued

Warranty

This Hewlett-Packard product has a warranty against defects in material and workmanship for a period of one year from date of shipment. During the warranty period, Hewlett-Packard Company will, at its option, either repair or replace products that prove to be defective.

For warranty service or repair, this product must be returned to a service facility designated by Hewlett-Packard. The Buyer shall pay Hewlett-Packard's round-trip travel expenses.

For products returned to Hewlett-Packard for warranty service, the Buyer shall prepay shipping charges to Hewlett-Packard and Hewlett-Packard shall pay shipping charges to return the product to the Buyer. However, the Buyer shall pay all shipping charges, duties and taxes for products returned to Hewlett-Packard from another country.

Hewlett-Packard warrants that its software and firmware designated by Hewlett-Packard for use with an instrument will execute its programming instructions when properly installed on that instrument.
Hewlett-Packard does not warrant that the operation of the instrument software, or firmware, will be uninterrupted or error free.

Limitation of Warranty

The foregoing warranty shall not apply to defects resulting from improper or inadequate maintenance by the Buyer, Buyer-supplied software or interfacing,unauthorized modification or misuse, operation outside of the environmental specifications for the product, or improper site preparation or maintenance.

No other warranty is expressed or implied. Hewlett-Packard specifically disclaims the implied warranties of merchantability and fitness for a particular purpose.

Exclusive Remedies

The remedies supplied are the Buyer's sole and exclusive remedies. Hewlett-Packard shall not be liable for any direct, indirect, special, incidental, or consequential damages, whether based on <nobreak|contract|, tort or any other legal theory.

Assistance

Product maintenance agreements and other customer assistance agreements are available for Hewlett-Packard products.<newline> For any assistance, contact your nearest Hewlett-Packard Sales Office.

Certification

Hewlett-Packard Company certifies that this product met its published specifications at the time of shipment. Hewlett-Packard further certifies that its calibration measurements are traceable to the United States Institute of Standards and Technology, to the extent allowed by the Institute's calibrating facility, and to the calibration facilities of other International Standards Organization members.

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Chapter 1

System Requirements

Supported Hardware and Software

The HP E4821A module is supported in HP E4829A/B Systems.

The module can also be installed in HP Broadband Series Test Systems (BSTS) which meet the following system requirements:

Hardware Requirements

Mainframe	E1401B, or E4200B
Controller	E1497A
RAM	minimum 32 Mbyte
Hard disk	E4208B
SWAP Space	minimum 200 Mbyte
Monitor	Super VGA Monitor
Keyboard	Enhanced Mini-DIN PC keyboard
Mouse	Mouse with Mini-DIN connector
Ethertwist Transceiver	HP 28685B
CD-ROM Drive	for example HP C2943A
DAT Tape Drive	SCSI 2, DDS, for example Series HP 6400

Software Requirements

UNIX Operating System	Revision 9.X
SICL Software	Revision C.03.06 and newer

Chapter 2

Overview of Installation Procedures

Installation Procedures

The following installation procedures are described in this guide:

First Time Installation

Setting Up the E4829A/B Parallel Cell Generator and Analyzer System, see Chapter 3, on page 17.

Adding and Removing Modules

Adding or Removing a Module in the HP E4829A/B System, see Chapter 4, on page 39.

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- From Tape, see Chapter 6, on page 53.
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Running Additional DVT Tools in a Single VXI Mainframe, see Chapter 11, on page 153

Adding Peripherals, see Chapter 9, on page 117.

- Remote Printer
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Licensing

License Handling, see Chapter 10, on page 131.

Chapter 3

Setting Up the HP E4829A/B System

General Installation Steps for the E4829A/B System

System Set Up for Use

Switch On and Log In

Power Down the System

Backing Up the System Database

Additional System Information

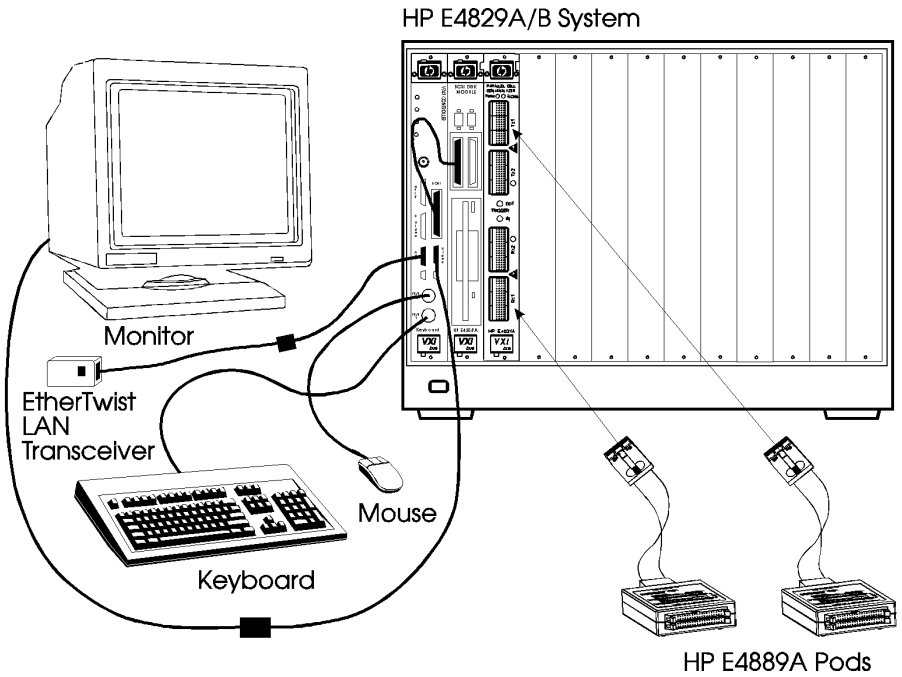
A. Initial Inspection

Inspect the shipping container for damage. If the container or cushioning material is damaged, keep it until the contents of the shipment have been checked for completeness and the instrument has been verified both mechanically and electrically.

WARNING: **To avoid the hazard of electric shock, do not perform electrical tests when there are signs of shipping damage to any part of the instrument's outer covers or panels.**

If the contents are incomplete, or there is mechanical damage, or if the instrument does not pass the selftest, notify the nearest Hewlett-Packard office. Keep the shipping materials for inspection by the carrier. The HP office will arrange for repair or replacement without awaiting settlement.

Figure 1 HP E4829A/B Parallel Cell Traffic Generator and Analyzer System with Peripherals Connected



B. Contents of Shipment

Table 1 **The HP E4829B Parallel Cell Traffic Generator and Analyzer System**

Item No	Description	Qty	Model No Part No
1	Mainframe, 13-Slot, C-size	1	E1401B
2	Controller, V743/64	1	E1497A
3	Harddisk, Floptical Drive, SCSI	1	E4208A/B
4	Operating System, HP-UX 9.X, 2 users	1	B2352A
5	SICL SW and Licence for HP-UX	1	E2091C
6	Parallel Cell Traffic Generator and Analyzer Module	1	E4821A
7	Active Pod	2	E4889A
8	User SW and License for HP-UX	1	E4871A #001
9	EtherTwist LAN Transceiver	1	A2671A (or HP 28685B)
10	LAN Adapter Cable	1	A4303A (or A2636-61602)
11	Video Adapter Cable	1	A4304A (or A2636-61603)
12	SCSI Cable	1	E4208-64015
13	SCSI Terminator HDTS50	1	C2904A
14	Module-to-Pod Connection Cable	2	E4889-61601

The software and hardware are pre-installed and pre-configured. Only some connections of peripherals and module inter-connections have to be made.

The required software licenses HP E4822A ATM-8 Personality or HP E4823A AMT-16 Personality have to be ordered separately. They are also pre-installed in a factory configured HP E4829B System.

Orders containing Additional Modules

Orders which include multiple HP E4821A modules and HP E4822A ATM-8 or HP E4823A ATM-16 personality software licenses are pre-configured. The additional pods (HP E4889A) and module-to-pod connection cables (p/n E4889-61601) are included in the shipment.

Setup System for Use

The HP E4829A/B System is a factory hardware pre-configured, and software pre-installed system. A separate to order monitor, keyboard and mouse have to be connected to the system and the following cable inter-connections between the modules have to be made before the system can be used.

C. Module Inter-Connections

Tools Required

Only a medium size flat-plate screwdriver is required.

Figure 2 Connections to Make Before Using a Standard HP E4829A/B System

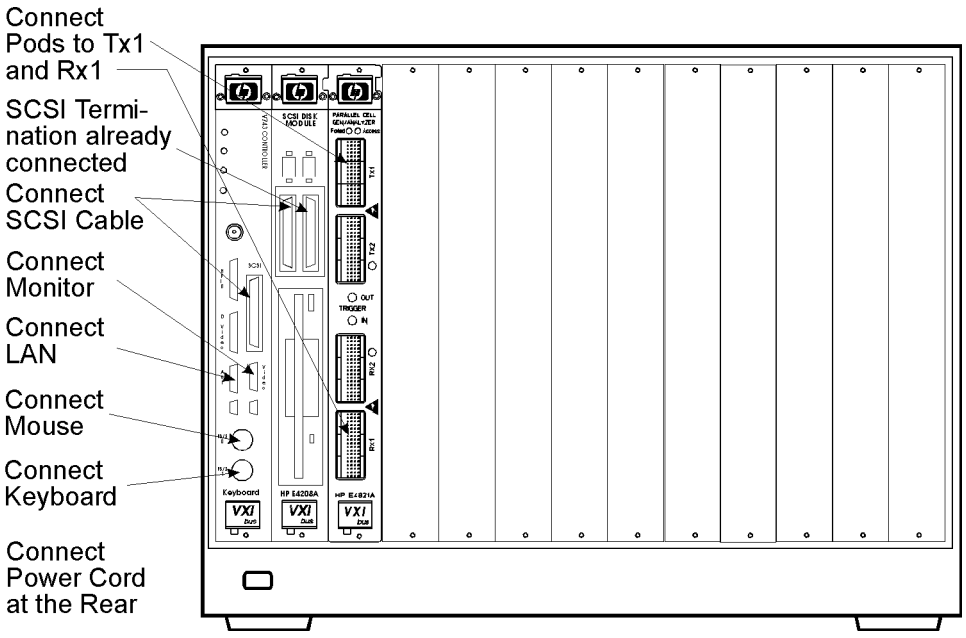
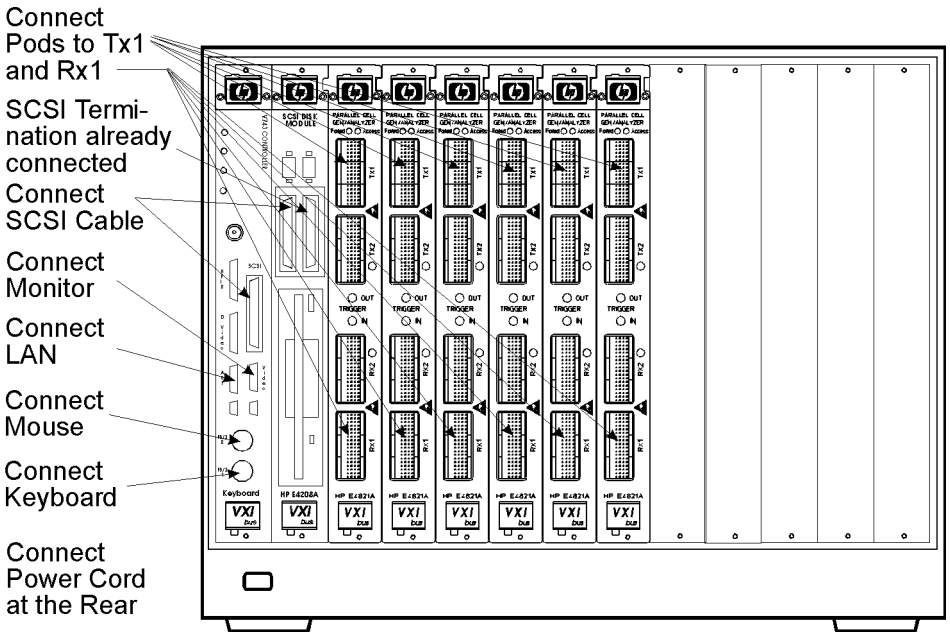


Figure 3 Connections to Make Before Using an HP E4829A/B System with Additional HP E4821A Modules



a) Connect HP E4889A Active Pods

For each port you want to use, connect an HP E4889A active pod to the **Tx1** and **Rx1** port of an HP E4821A module using the module-to-pod connection cable (p/n E4889-61601). Connect the other end of the connection cable to the pod connector marked ‘To Module’.

b) Connect SCSI Cable

The HDTS50 SCSI cable (p/n E4208A-64015) has to be connected between the V743 controller and the HP 4208A SCSI disk module. The connectors have to snap in for a proper connection.

c) Check SCSI Termination

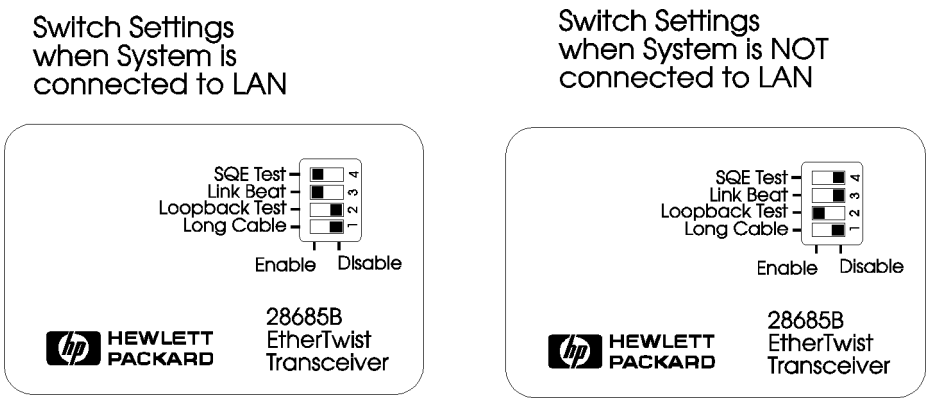
Please make sure that the SCSI Terminator (HP C2904A) is still properly connected to the right SCSI connector of the HP E4208A Disk Module.

d) Connect LAN Cable

It is necessary to terminate the LAN connector even if the system is not intended to be connected to a LAN. Therefore the LAN adapter cable (p/n A2636-61602) has to be connected to the HP 28685B EtherTwist LAN Transceiver and to the AUI Input of the V743 controller.

The HP 28685B's switches are factory preset for using the system as a stand-alone unit. When the system is intended to be connected to LAN the switches have to be set as shown in Figure 4.

Figure 4 Different EtherTwist LAN Transceiver Switch Settings



NOTE: When the HP E4829A/B System is to be connected to a LAN, it is necessary to change the default IP address to the local requirements. It is recommended to have a system administrator who is familiar with the local network to connect the system to the local network.

D. Connecting External Devices

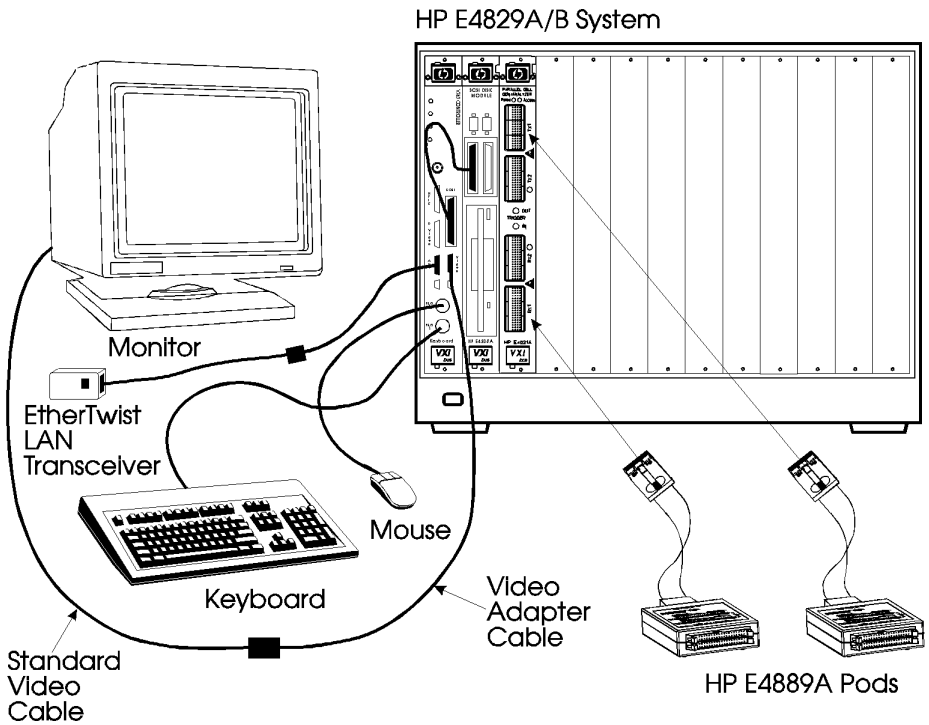
To use the HP E4829A/B System it is necessary to connect a Monitor, Keyboard, and Mouse. See Figure 5.

NOTE: Monitor, Keyboard and Mouse are not supplied as part of the HP E4829A/B System. This equipment has to be ordered separately.

Table 2 **Required External Devices**

External Device	Description
Monitor	Super VGA Monitor
Keyboard	Enhanced Mini-Din PC-Keyboard
Mouse	Mouse with Mini-Din Connector

Figure 5 **Connecting the Monitor, Keyboard and Mouse**



a) Monitor

1 Connect the monitor's standard video cable to the monitor

2 Connect the other end of the monitor's standard video cable to the video adapter cable HP 4304A (or p/n A2636-61603) shipped with the HP E4829A/B System

3 Connect the other end of the video adapter cable to the V743 controller's Video In

b) Keyboard

4 Connect the Keyboard to the V743 controller's Keyboard connector, PS/2 input 0

c) Mouse

5 Connect the Mouse to the V743 controller's PS/2 input 1

Connecting to Your DUT

For connecting to your device-under-test (DUT) please refer to the "Getting Started Guide, E4871-91011, Appendix.

E. Connecting Power and Switching On

a) Connect AC Power to Mainframe and Monitor

Connect one power cable from the monitor and one power cable from the HP E1401B mainframe to the AC power line.

b) Switch on the HP E4829A/B System

Switch on the monitor, then the mainframe. The system automatically boots up into the VUE logon screen.

NOTE: In the V743 controller's Installation Guide, please refer to the "Initial Turn-On and Getting Started" section when you do not get a readable display, or refer to the "Graphics Configuration with Boot Console Handler" section to change the graphics mode for your monitor . The default graphics setting is 1024 x 768, 70 Hz.

WARNING: **Do not switch off the system during the boot up process, as this could lead to serious file and file system corruption. If this occurs, it may not be possible for the operating system to automatically recover.**

The boot up process is finished when either the VUE login screen is displayed, or when the yellow access LED on the HP E4208B Disk Module is not illuminated or not blinking.

The boot up process stops for about 30 seconds to allow for adjustment of the local date/time settings. The query is, e.g.:

```
Is date Fri 14 July 10:55:34 METDST 1995 correct? (y or n, default: y)
```

To change the date and time follow the instructions given on the monitor.

NOTE: The default date/time and timezone is set to MEZ (METDST) and German local time. The timezone can only be changed by the system administrator.

F. Logging In and Starting the User Software

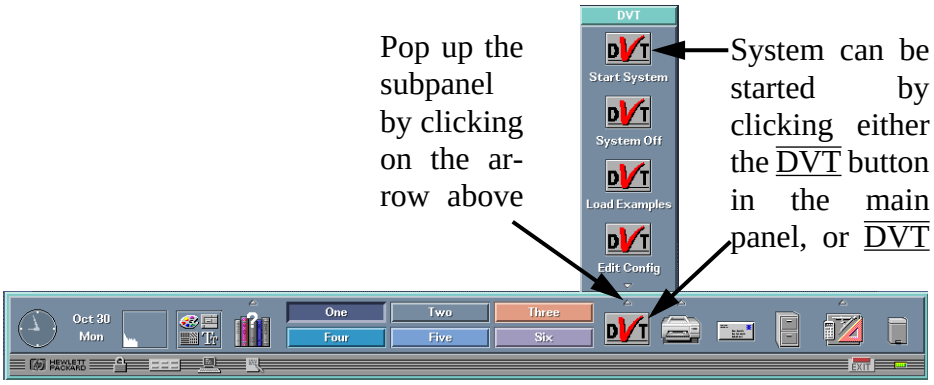
a) Log In

At the VUE logon screen user prompt type: *dvt*. There is no password required. Click on the OK button, or press <Enter> key.

b) Start the User Interface

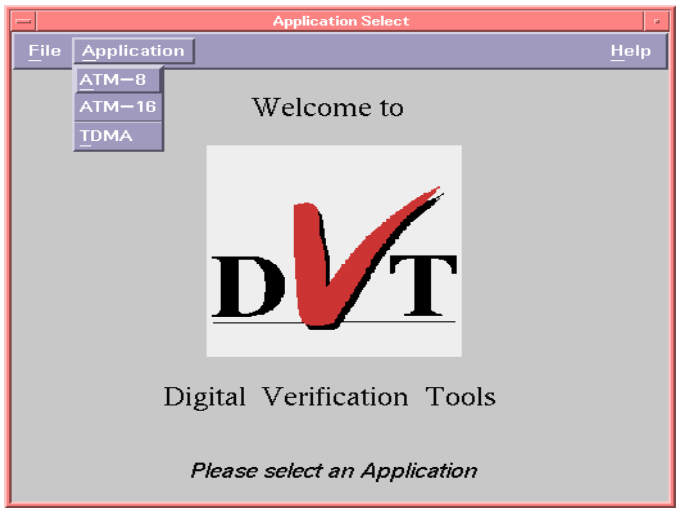
After several seconds the E4829A/B user workspace pops up. To start the user software click either on the DVT button located in the VUE main panel, or the DVT 'Start System' button located in the VUE subpanel, see Figure 6.

Figure 6 Button to Start the DVT Application



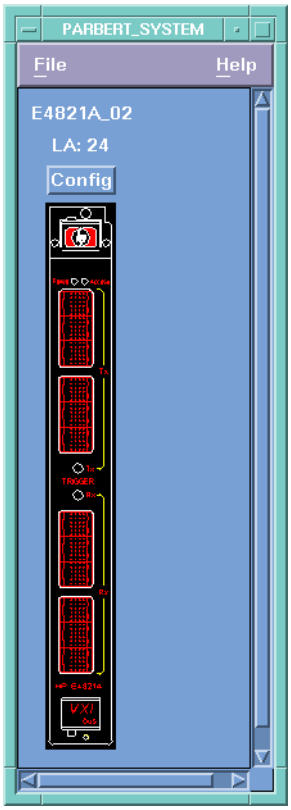
After several seconds the 'Application Select' window pops up. Depending on the personality SW and licenses installed, select Application>ATM-8 (or ATM-16):

Figure 7 Select ATM-8 (or ATM-16) to Start the HP E4829A/B System



Again, after several seconds the System Configuration window for the HP E4829A/B System is displayed:.

Figure 8 System Configuration Window of the HP E4829A/B System



To get up and running with the system as quickly and easily as possible, it is recommended to read through and perform the examples in the Getting Started Guide (p/n E4871-91011). For additional information, please refer to the system on-line Help.

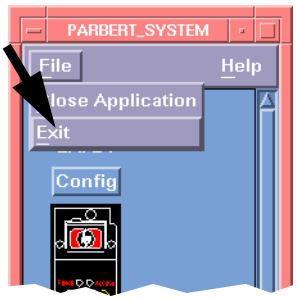
G. Power Down Procedure

To power down the HP E4829A/B System it is recommended to perform the following controlled shutdown procedure:

NOTE: A non-controlled shutdown could cause the loss of data or file system corruption.

1 Close the user software from the File>Exit menu option in the 'PARBERT_SYSTEM' window, see Figure 9.

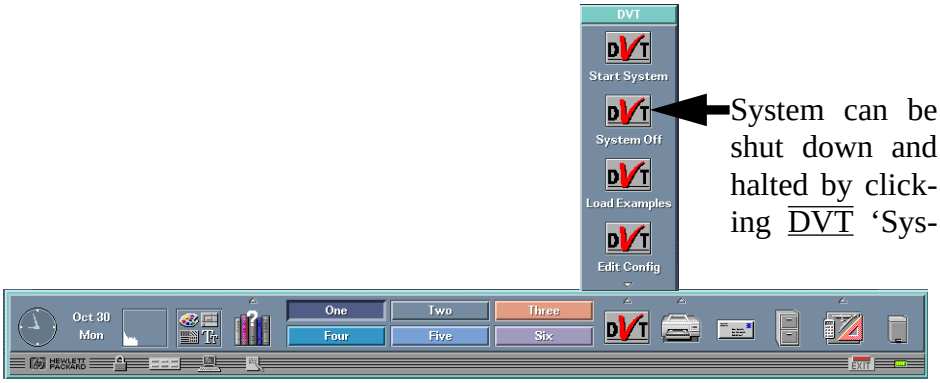
Figure 9 Main Connection Window of the E4829A/B System



2 If applicable, close all other open applications.

3 Click on the DVT 'System Off' button which is located in the DVT subpanel, see Figure 10.

Figure 10 Button to Shutdown and Halt the HP E4829A/B System



System can be shut down and halted by clicking DVT 'System Off'

4 Wait for the displayed information that the system is halted and power can be

cycled:

```
Halted, you may now cycle power
```

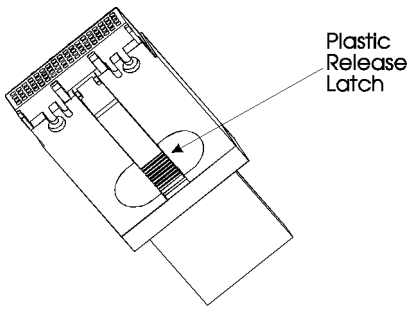
5 Switch off the power switch on the mainframe and monitor.

H. Disconnecting Pods from the HP E4821A Module

To disconnect the HP E4889A pods from the HP E4821A module it is necessary to press the plastic release latch on the module-to-pod connection cable connector (E4889-61601), see Figure 11. Use the same procedure to disconnect the pod from the connection cable.

NOTE: The connector latching mechanism may be damaged if the release latch is not pressed.

Figure 11 Module-to-pod Connection Cable Release Latch



I. Cleaning Recommendation

WARNING: **At first power down the HP E4859A System as described in "G. Power Down Procedure, see page 29." Then to prevent electrical schock, disconnect the HP E4859A System from mains. Use a dry cloth or one slightly dampened with water to clean the external case parts. Do not attemp to clean internally.**

J. Backup Recommendation

Data Backup

It is recommended to make data backups on a daily basis. A system administrator who is familiar with the backup guidelines in your company should establish the regular backup.

The directory path of the database is:

‘/db/opt/dvt/dvtdb2’

NOTE: In older systems the directory path is different: ‘/opt/legos/db’

K. Operating Environment

Table 3 Operating Environment

Storage Temperature	-40°C to +60°C
Operating Temperature	5°C to 40°C
Humidity	95% R.H. (0°C to 40°C)

WARNING: **The HP E4829A/B System is not designed for outdoor use. Do not expose the HP E4829A/B to rain or other excessive moisture. Protect the HP E4829A/B from humidity and temperature changes which could cause condensation within the instrument.**

WARNING: **Do not operate the HP E4829A/B in the presence of flammable gases, fumes or powders. Operation of any electrical instrument in such an environment constitutes a definite safety hazard.**

WARNING: **Protect the HP E4829A/B System from electrostatic discharges which could cause malfunctioning, or even damage the instrument.**

L. Power and Ventilation Requirements

In factory pre-configured systems all power and ventilation requirements are satisfied for the modules.

For the power and ventilation requirements of the mainframe, please refer to the user's or installation guide of the mainframe.

M. Verify Operation

For verifying the operation of the HP E4829A/B System please refer to the E4829A/B Getting Started Guide (p/n E4871-91011) which is included in this shipment.

N. Site Attenuation Requirements

Introduction:

For all products installed in Europe (EU-Countries), the requirements of the EC-Directive on EMC, 89/336/EEC have to be adhered to.

For the above product , the derived standards as well as the classes are noted in the Declaration of Conformity in chapter 3 of it's associated Installation Guide, HP E4829-91010.

Conformity from a Competent Body:

The EMC Directive (Para. 10.2) requires a Technical Construction File (TCF) with a Declaration of Conformity from a Competent Body (CB). For the Site Attenuation Requirements and the methods stated herein a review by a CB is mandatory.

Technical Rationale:

The product concerned herein meets all requirements, except the Radiated Emissions of CISPR11/EN55011. This is mainly driven by cables which provide limited shielding for higher frequencies and thus cause electromagnetic radiation like from an antenna.

In order to meet the requirements in situ, prevention has to be considered before the instrument is turned on for its intended application. The methods described herein are sufficient to keep the system within the given limits of the standard.

For preparation of the data for the required site attenuation the system was evaluated in a test site; the radiation values exceeding the limits were taken as the reference of the required Target Values for this installation instruction. This way, the subtraction of the site attenuation from the measured radiation, leads to a radiation level requested by the standard.

Site Attenuation:

This section describes the methods for a **Site Attenuation** to meet the requirements of Class A.

For an **HP E4829B Parallel Cell / Traffic Generator and Analyzer** the required value for Target Site Attenuation is:

5 dB

Installation Instruction:

If your site has received permission from a local (PTT) agency to exceed the level limits of radiation by a specific ratio, this ratio has to be considered .

In such a case subtract this ratio from the **Target Site Attenuation**.

Based on the location where the product is to be installed, obtain the **Available Site Attenuation.** The calculating method is described in the section Calculating Method. Some site preparations may have to be done. Try to optimize the location as well as the consideration of available walls or walls to be installed.

When the location is finally determined make an overall calculation of the **Available Site Attenuation**.

NOTE: The Available Site Attenuation has to be greater than the Target Site Attenuation!

In case of that this requirement is not achievable, consider other methods like the use of a Shielded Cabin.

Other shielding methods like conductive wall paper, metallized walls etc. require an approval test (“in situ”) by a local (PTT) agency. Appropriate arrangements have to be organized.

Install the instrument as described in chapter 3 of the Installation Guide HP E4829-91010. The product installation then meets the requirements for radiation levels of Class A, CISPR 11/EN55011.

Calculating Method:

To obtain the necessary attenuation at the customer's site:

1 The attenuation of a concrete wall (W) (without any openings) = 10 dB

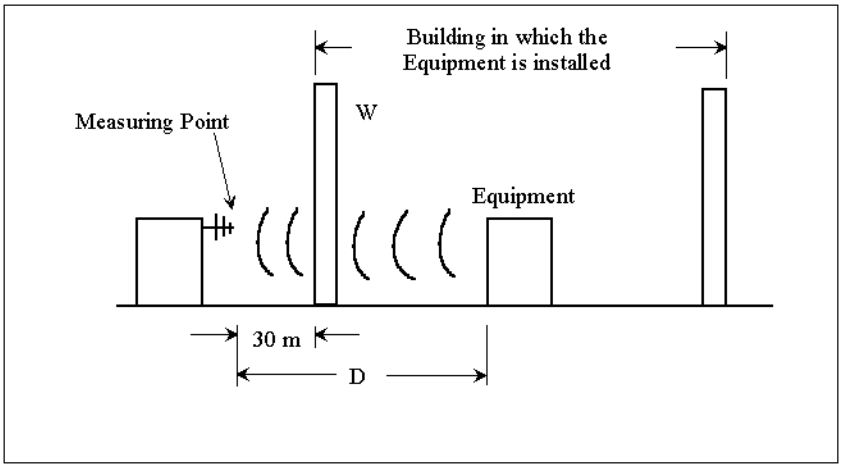
2 The distance (D) (the distance from the equipment to the exterior wall plus 30 meters) increases the attenuation by X and can be calculated as follows:

$X = 20 * \log (D/30)$ where: X = attenuation in dB
D = distance in meters

3 The total attenuation (A) is calculated as follows:

$A = n * W + X$ where: A = total attenuation in dB
n = number of concrete walls within distance D
W= 10 (dB)

Figure 12 Obtaining the available site attenuation



This methode yields to the following requirements at the installation site:

Table 4

Req. Attn. /dB	Walls /n	Avail. Attn /dB	Distance /m
5	0	5	54
5	1	-5	17
5	2	-15	6

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Chapter 4

Hardware Installation

Adding or Removing the HP E4821A Module

What You Need

Medium-size flat-plate screw driver to remove filler panel and to secure the module to the mainframe.

General Procedures

Adding a Module in the HP E4829A/B System

A. Power Down the HP E4829A/B System, see page 40.

C. Set a Logical Address on the Module, see page 42.

D. Plug In the Module, see page 43.

E. Connect Pods to the Installed Module, see page 44.

H. Select Next Procedure and Steps, see page 45.

Removing a Module from the HP E4829A/B System

Reverse order of steps (see also F. Removal of a Module, see page 48):

A. Power Down the HP E4829A/B System, see page 40.

E. Connect Pods to the Installed Module, see page 44.

D. Plug In the Module, see page 43.

H. Select Next Procedure and Steps, see page 45.

Adding a Module in the HP Broadband Series Test System (BSTS System)

B. Power Down the HP BSTS System, see page 41.

C. Set a Logical Address on the Module, see page 42.

D. Plug In the Module, see page 43.

E. Connect Pods to the Installed Module, see page 44.

H. Select Next Procedure and Steps, see page 45.

Removing a Module from the HP BSTS System

Reverse order of steps (see also F. Removal of a Module, see page 48):

B. Power Down the HP BSTS System, see page 41.

E. Connect Pods to the Installed Module, see page 44.

D. Plug In the Module, see page 43.

H. Select Next Procedure and Steps, see page 45.

Connect or Disconnecting the HP E4889A Pods

G. Connecting or Disconnecting the HP E4889A Pods, see page 45.

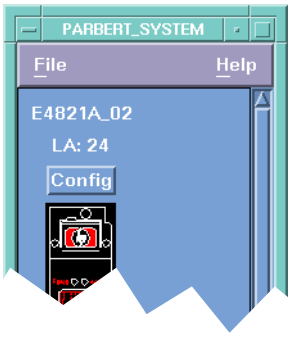
A. Power Down the HP E4829A/B System

To power down the HP E4829A/B System it is recommended to perform the following controlled shutdown procedure:

NOTE: A non-controlled shutdown could cause the loss of data or file system corruption.

1 Close the user software from the File>Exit menu option in the 'PARBERT_SYSTEM' system configuration window, see Figure 13

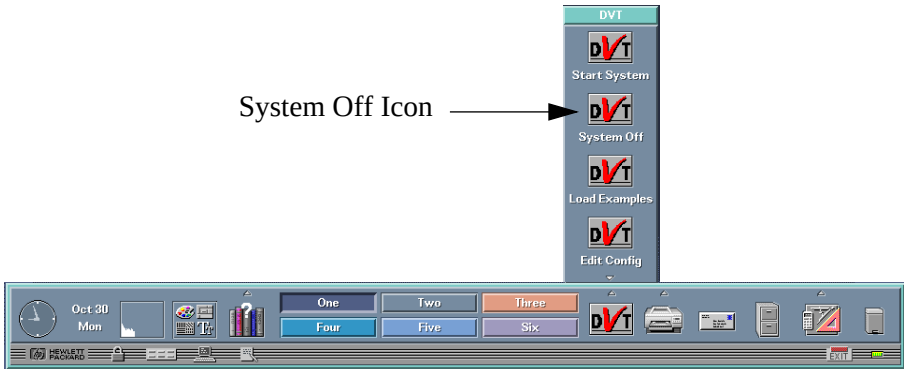
Figure 13 HP E4829A/B System Configuration Window



2 If applicable, close all other open applications.

3 Click on the DVT 'System Off' button which is located in the DVT subpanel, see Figure 7.

Figure 14 System Off Icon to Power Down the E4829A/B System



4 Wait for the displayed information that the system is halted and power can be cycled:

```
Halted, you may now cycle power
```

5 Switch off the power switch on the mainframe.

B. Power Down the HP BSTS System

1 In a Broadband Series Test System use the System>Shutdown menu option.

2 Wait for the displayed information:

‘Halted, you may now cycle power’.

3 Switch off the power switch on the mainframe.

NOTE: In HP UNIX it is possible to power down the system from the SystemHalt option in the Toolbox>General>System_Admin menu, or initiate the following command from the superuser prompt:

shutdown -h now

Wait for the displayed information:

‘**Halted, you may now cycle power**’.

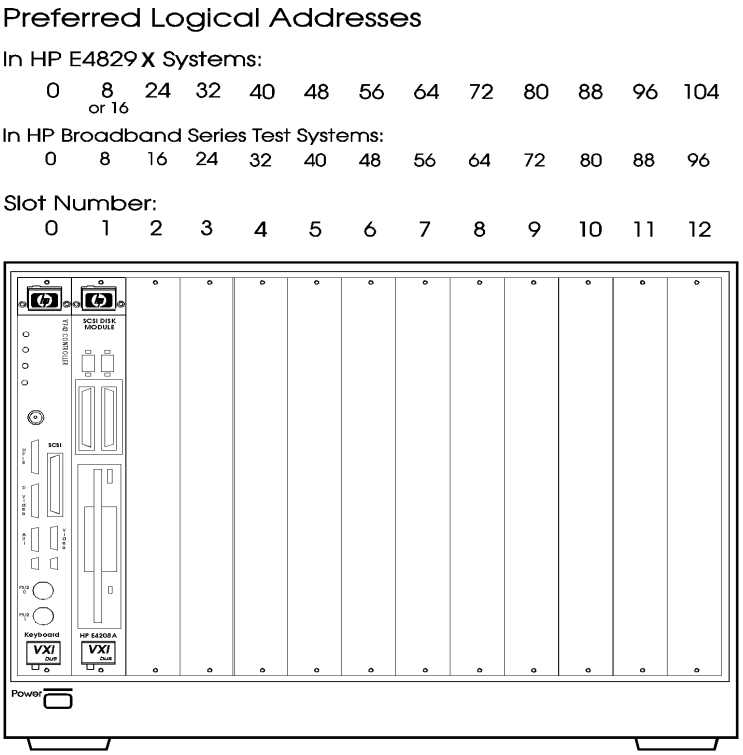
Switch off the power switch on the mainframe.

C. Set a Logical Address on the Module

1 Choose the slot where the module is to be installed. When multiple modules are to be installed, keep them in adjacent slots.

Preferred logical addresses in an HP E4829A/B System or an HP BSTS System, see Figure 15:

Figure 15 Preferred Logical Addresses in an HP E4829A/B, or HP BSTS System



NOTE: The logical address can be set in the range of 1 to 255. Logical addresses in multiples of 8 are preferred.

In systems with an V743 Controller (HP E1497A) installed it is possible to find out the used logical addresses for the current configuration by executing the following command (with default settings assumed):

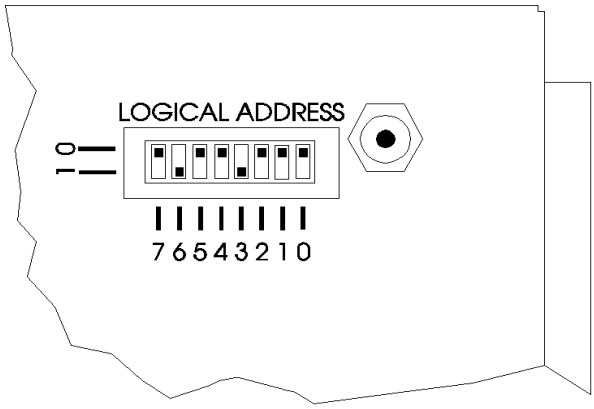
```
$ /usr/pil/bin/ivxisc -d /usr/pil/etc/vxi24
```

Slot 0, slot 1 and slot 2 in an HP E4829A/B Entry System are occupied by the controller, the hard disk module, and an HP E4821A module.

2 Set the logical address

Set the logical address with the address switches located on the upper right-hand side corner on the right side of the module. The example in Figure 16 shows the logical address 72 setting for slot 8.

Figure 16 Logical Address Switches



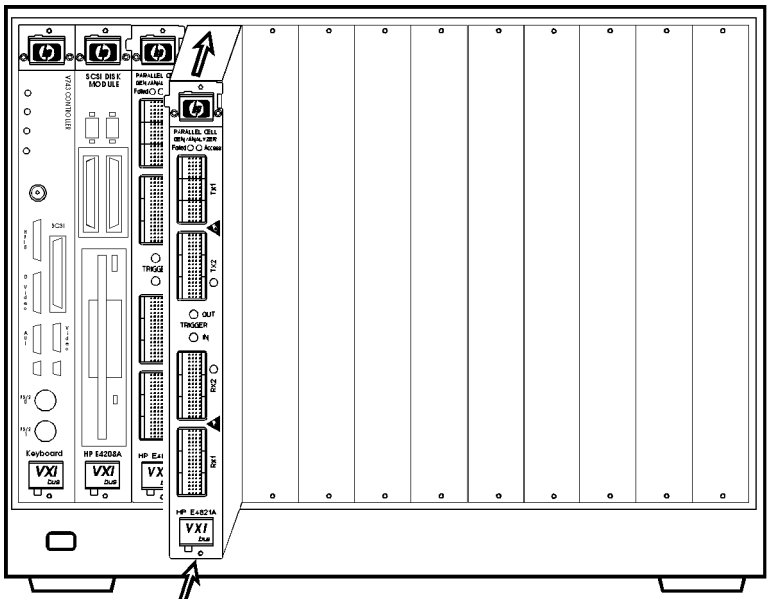
D. Plug In the Module

1 If a filler panel is covering the slot where the module has to be installed, please remove the filler panel.

2 Installation into an HP E1401B mainframe:

Insert the module into the mainframe by aligning the top and bottom of the module with the card guides inside the mainframe. Slowly push the module straight into the slot until it seats in the backplane connectors. The front panel of the module should be even with the front edges of the mainframe, see Figure 17.

Figure 17 Plugging In an Upgrade Module into HP E4829A/B System



Installation into an HP E4200B mainframe:

When installing the module in the HP E4200B mainframe, the “top” of the module will be on the right when it is installed horizontally.

NOTE: For further installation information please refer to “Install C-Size Modules” in the C-Size VXI Bus System Configuration Guide, p/n E1406-90026.

E. Connect Pods to the Installed Module

Connect an HP E4889A pod to the Tx1 and Rx1 port. Two pods are included in the shipment of the module.

F. Removal of a Module

Removal of a module is the reverse procedure of tasks E. and D.

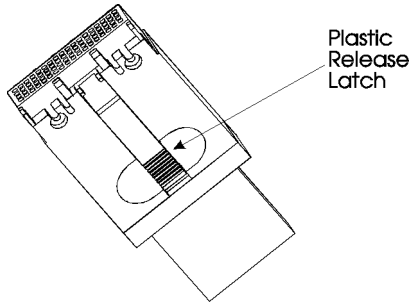
G. Connecting or Disconnecting the HP E4889A Pods

To connect the HP E4889A pods push the module-to-pod connection cable cable connector into the pod connector. The other connector of the cable into the HP E4821A module's either Tx1 or Rx1 port.

To disconnect the HP E4889A pods from the HP E4821A module it is necessary to press the plastic release latch on the module-to-pod connection cable connector (cable p/n is E4889-61601), see Figure 18. Use the same procedure to disconnect the pod from the connection cable.

NOTE: The connector latching mechanism may be damaged if the release latch is not pressed.

Figure 18 Module-to-pod Connection Cable Release Latch



H. Select Next Procedure and Steps

If you are installing or updating your current software, please go to one of the following chapters:

1. If you are updating from tape, use the instructions given in Chapter 6, "Software Installation from Tape", on page 53.
2. If you are updating from CD-ROM, use the instructions given in Chapter 7, "Software Installation from CD-ROM", on page 73.

If you are adding a module without a software update or if you are removing a module, use the instructions given in Chapter 5, "Modify Configuration Files", on page 47.

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Chapter 5

Modify Configuration Files

Modifying Configuration Files (dvt.sys, dvt.its)

Introduction

A set of the configuration files, dvt.sys and dvt.its, are created for each user starting the ‘DVT’ User Software for the first time.

NOTE: In older systems the configuration files are named legos.sys and legos.its

You will find these configuration files in the home directory of the *dvt* user (HP E48x9x System), or the *bisdn* user of the BSTS System (Broadband Series Test System).

A new set of the configuration files, dvt.sys and dvt.its, has to be created when:

- An additional module is installed into the system.
- A module is removed from the system.

You can force the system to automatically create the configuration files based on your current system hardware.

This is done by renaming the files. Then when the DUT software is started it automatically creates them based on your current sytem hardware.

The following steps describe how to create the configuration files automatically:

General Procedures

A. Login as ‘dvt’ user, see page 49.

B. Open a Command Input Window, see page 50.

C. Rename Current Configuration Files, see page 50.

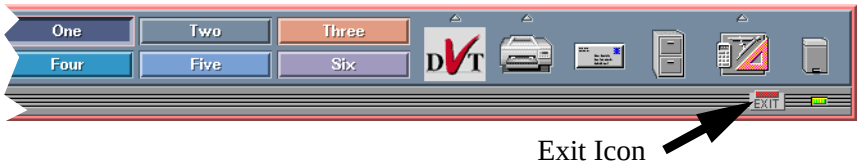
D. Create New Configuration Files, see page 51.

E. Remove Renamed Configuration Files, see page 52.

A. Login as ‘dvt’ user

1 Close all applications and click on the ‘EXIT’ icon in the VUE front panel.Confirm with ‘**y**’ to exit.

Figure 19 Exit Icon in the VUE Front Panel

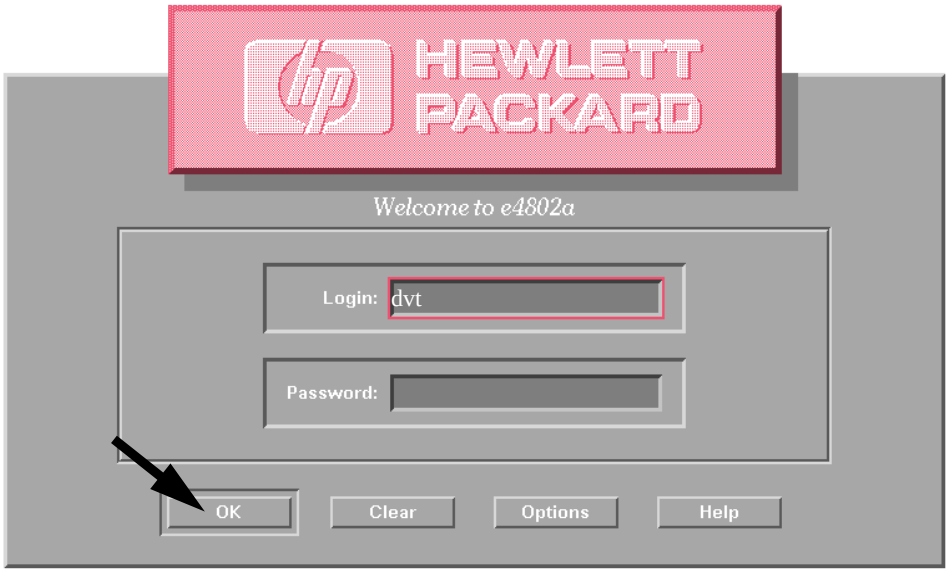


2 After a few seconds the VUE Login Screen pops up, see Figure 20.

3 Type in the username **dvt**

4 If there is a user password set, type in the password. Then press the [Return] or [Enter] key, or click OK. For example, if the default setting is not changed for the *dvt* user, then there is no password.

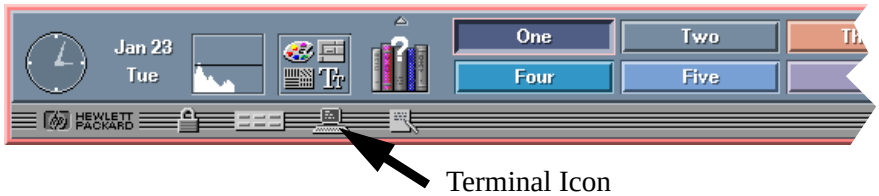
Figure 20 VUE Login Screen for User *dvt*



B. Open a Command Input Window

1 Click on the Terminal Icon in the VUE front panel to open a command input window (hpterm):

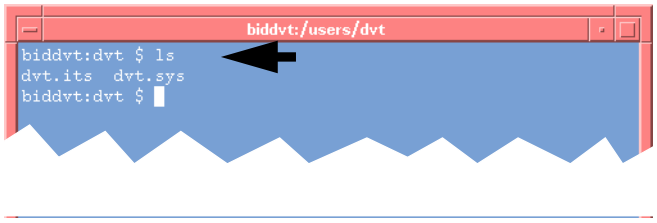
Figure 21 Terminal Icon in the VUE Front Panel



2 Check whether dvt.its and dvt.sys files are present
Type the command ‘ls’ at the prompt (prompt example: biddvt:dvt $)
`biddvt:dvt $ ls`
then press the [Return] or [Enter] key.

C. Rename Current Configuration Files

Figure 22 List Configuration Files



NOTE: In older systems the configuration files are named legos.its and legos.sys

If files are not present:
Go to step ”D. Create New Configuration Files’’ on page 51.

If files are present:
Rename the current configuration files.

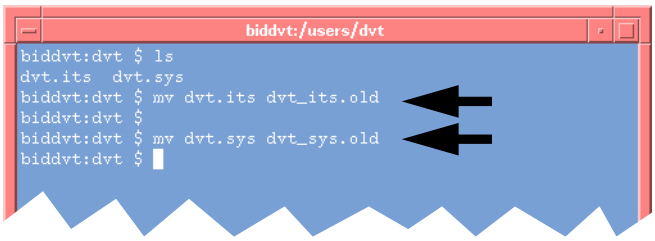
NOTE: If the configuration files legos.its and legos.sys are present, replace the text ‘dvt’ by ‘legos’ in the following steps:

3 Type the following command at the prompt (prompt example: biddvt:dvt $):
`biddvt:dvt $ mv dvt.its dvt_its.old`

then press the [Return] or [Enter] key.

4 Then type the following command at the prompt:
`biddvt:dvt $ mv dvt.sys dvt_sys.old`
then press the [Return] or [Enter] key.

Figure 23 Rename Current Configuration Files



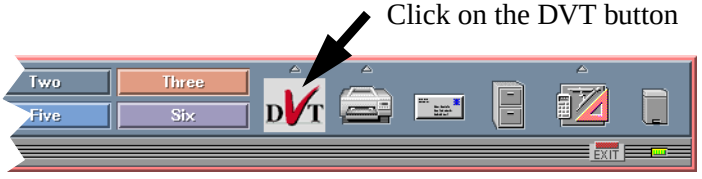
5 Check that rename of current configuration files was successful.
Type the command 'ls' at the prompt:
`biddvt:dvt $ ls`
then press the [Return] or [Enter] key.

Figure 24 Check Rename of Configuration Files Was Successful

D. Create New Configuration Files

1 Start 'DVT' Software by clicking on the 'DVT' Icon.

Figure 25 Start 'DVT' Software



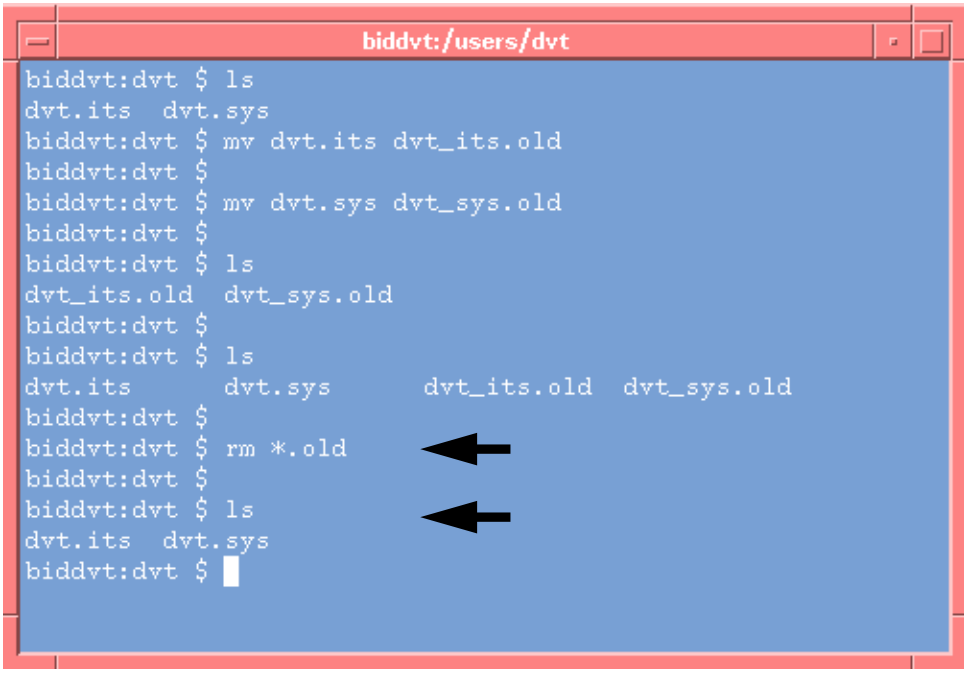
2 After a few seconds the system confirms that a new set of configuration files (dvt.its and dvt.sys) were successfully created, click on the OK button:

Figure 26 Configuration Files Created Dialog Box

E. Remove Renamed Configuration Files

1 Remove the renamed configuration files using the following command:
Type the command ‘rm *.old’ at the prompt:
`biddvt:dvt $ rm *.old`
then press the [Return] or [Enter] key.

Figure 27 Remove old Configuration Files



2 Check whether the ‘old’ configuration files were deleted and whether the new configuration files are present, see Figure 27.
Type the command ‘ls’ at the prompt::
`biddvt:dvt $ ls`
then press the [Return] or [Enter] key.

Chapter 6

Software Installation from Tape

Installation of the HP E4871A User Software

What You Need

- SCSI 2, DDS Tape Drive (for example, C1520N, HP 6400, HP 2000)
- SCSI Cable
- DDS Tape Cartridge containing latest Software Revision

General Software Installation Hints

NOTE: It is recommended to backup the current system, and all setups stored in the database, so that if any problems occur during the software installation, the original system can be recovered.

Some software installation steps should be followed only when installing the HP E4871A software into an existing HP E4829A/B Parallel Cell Traffic Generator and Analyzer System. These steps are labelled as “HP E4829A/B Systems only”.

Some software installation steps should be followed only when installing the HP E4871A software into an existing HP Broadband Series Test System (BSTS). These steps are labelled as “HP BSTS Systems only”.

All other software installation steps have to be followed when installing the HP E4871A software into HP E4829A/B and BSTS systems.

General Procedures

Update of the User Software in an HP E4829A/B System

Installation of the User Software in an HP BSTS System

O. Verify Operation, see page 70.

Update of the User Software in an HP BSTS System

Same steps as Installation, including step:

E. Remove Old Software Revision, see page 59.

A. Power Down the System

If the system is not already powered down, please refer to “A. Power Down the System”, Chapter 4, Hardware Installation, on page 39.

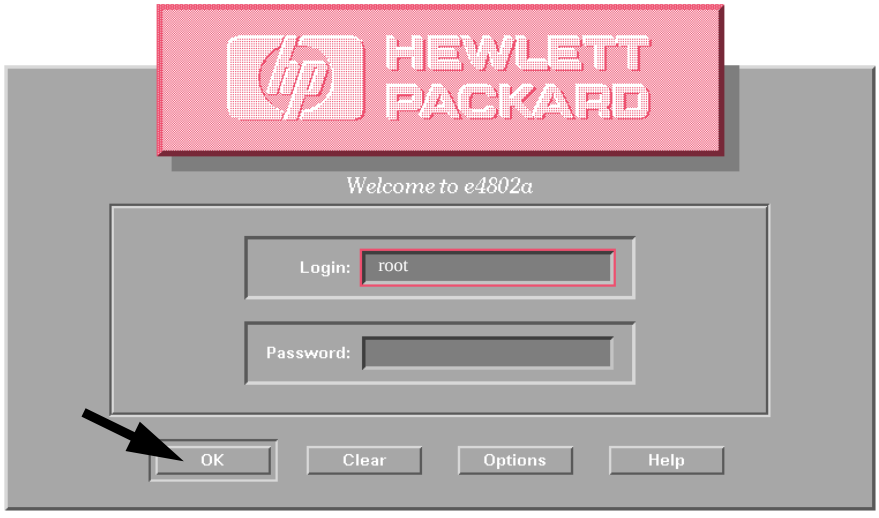
B. Connect Tape Drive

1. Disconnect the SCSI Termination Connector from the Disk Module (E4208A/B). The terminator is typically connected to the right SCSI connector.
2. Connect Tape Drive using the SCSI Cable to the right SCSI connector on the Disk Module.
3. Connect the Termination Connector to the second connector of the Tape Drive.
4. Check that the SCSI ID switch at the rear of the Tape Drive is set to “3” (default value)
5. Connect Power Cable to Tape Drive and switch on.

C. Power On System and Log In as ‘root’

1. Switch on the monitor and then the mainframe. Wait for the VUE login screen to be displayed, see Figure 28.
2. Login as ‘root’. If the sytem defaults have not been changed, there is no password required in an HP E4829A/B System, see Figure 28. In an HP Broadband Series Test System (BSTS), refer to the HP BSTS Installation Guide for a root password:

Figure 28 VUE Login Screen

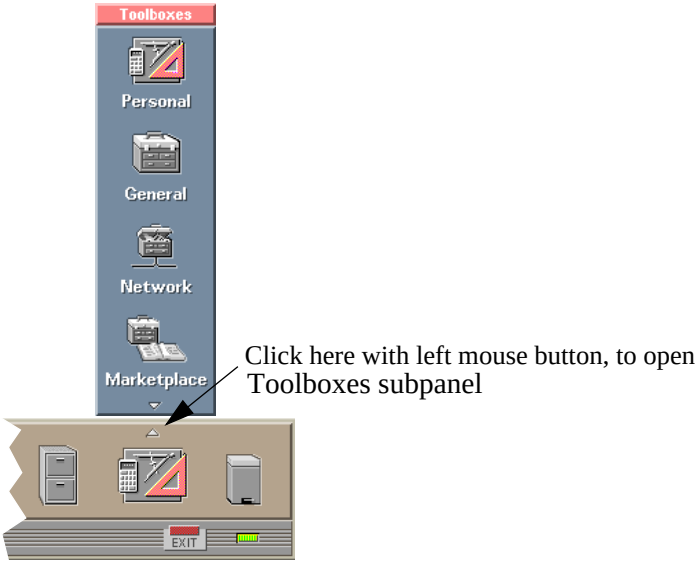


D. Open ‘General Toolbox>System_Admin’ Menu

NOTE: If you have an HP BSTS System, please continue with F. Load New Software Revision from Tape, see page 60..

1 Open ‘Toolboxes’ subpanel, see Figure 29

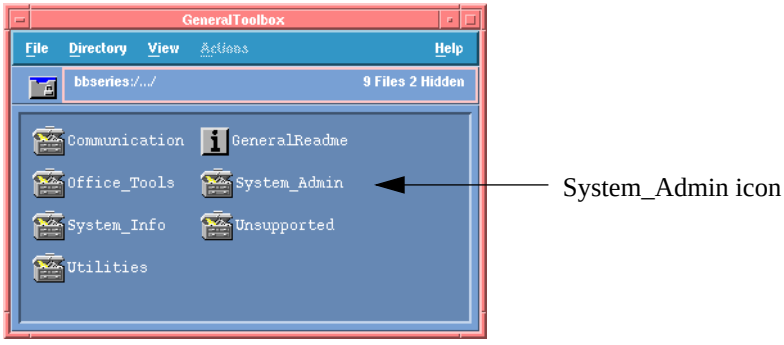
Figure 29 Toolboxes Subpanel



2 Single click on ‘General’, to open the General Toolbox window, see Figure 29.

3 From the ‘GeneralToolbox’ window, double click on the ‘System_Admin’ icon, see Figure 30.

Figure 30 GeneralToolbox Window

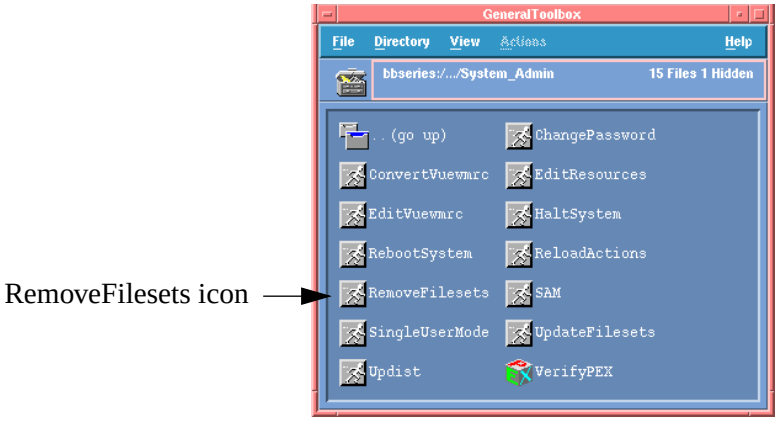


E. Remove Old Software Revision

NOTE: All existing database settings and cells are automatically backed up and imported to the updated system.
The removal of old software revision is not necessary when the software is installed for the first time.

1 Double click on the ‘RemoveFilesets’ icon, see Figure 31.

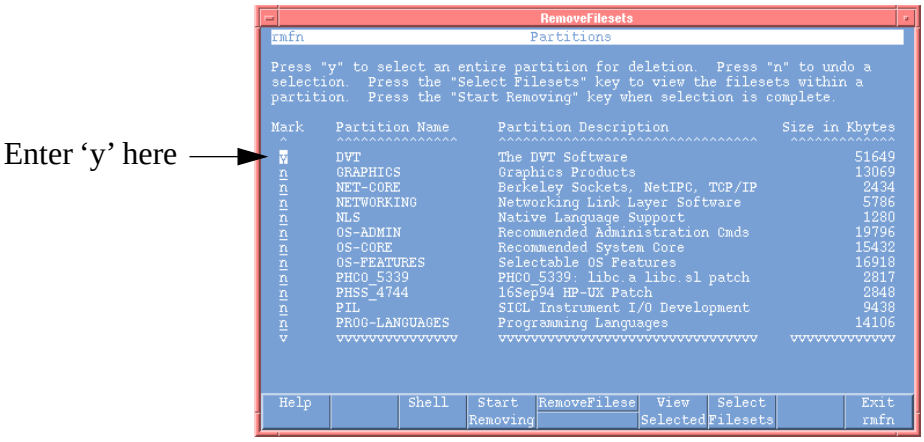
Figure 31 RemoveFilesets Icon in the GeneralToolbox/System_Admin Menu



2 Select the ‘**DVT**’ partition by entering a ‘**y**’ in the Mark column, see Figure 32

NOTE: Make sure that only the ‘**DVT**’ partition is marked ‘**y**’ for removal. If other portions are removed by accident this could lead to serious system faults.
When the current User Software Revision is older then A.01.02.00, then the fileset is named “**LEGOS**”, so mark the “**LEGOS**” fileset for removal.

Figure 32 Mark ‘LEGOS’ Software for Removing



3 Click on the Start Removing button, and then confirm with '**y**' to the question "Do you want to start removing now?". The system will then start removing the old software revision fileset.

4 When removal is complete, click the Partition Screen button.

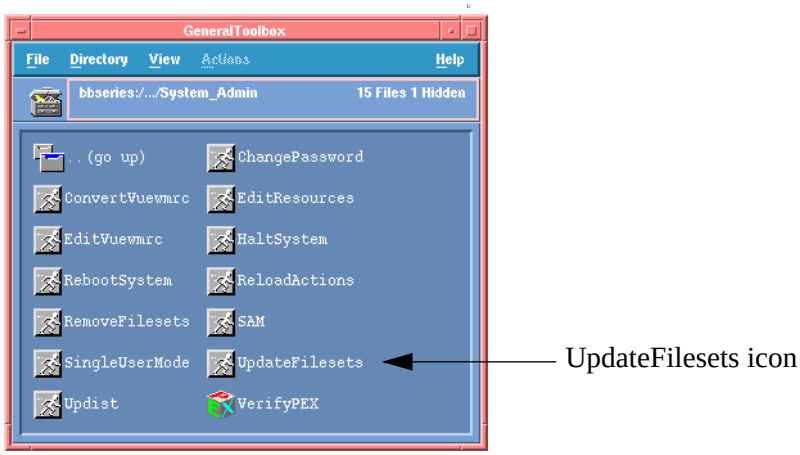
5 Click on the Exit rmfn button, confirm by entering '**y**', and Press [Return] or [Enter] key.

F. Load New Software Revision from Tape

1 Load Tape Drive with DDS Tape cartridge containing the new Software Revision.

2 Double click on the 'UpdateFilesets' icon in the General Toolbox window, see Figure 33.

Figure 33 UpdateFilesets in the GeneralToolbox/System_Admin Menu

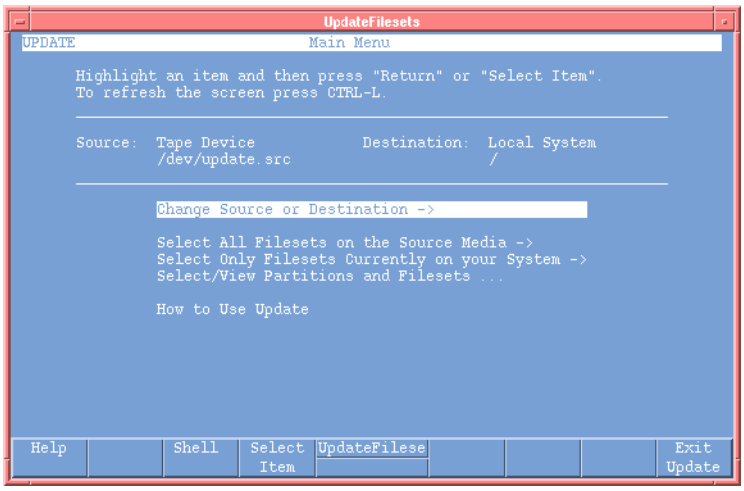


G. Change Update Source (HP BSTS Systems only)

NOTE: If you have an HP E4829A/B System, please continue with H. Continuing Steps for Loading New Software Revision, see page 63..

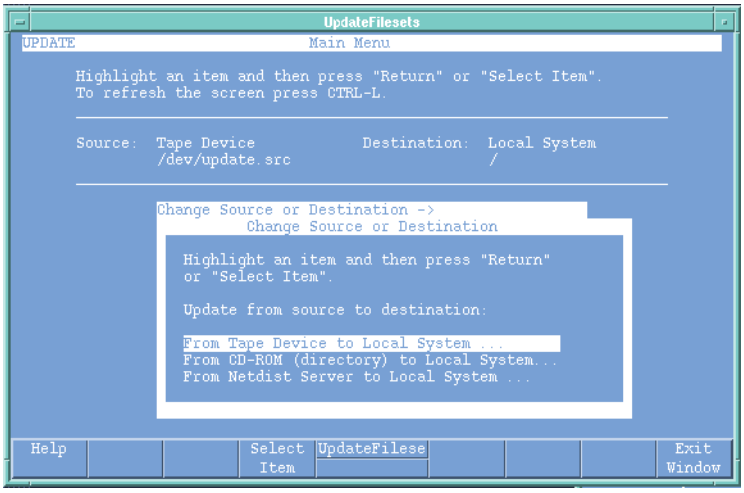
1 Select 'Change Source or Destination ...' with the cursor keys, then press [Return] or [Enter] key, see Figure 34.

Figure 34 Change Update Source in an HP BSTS System



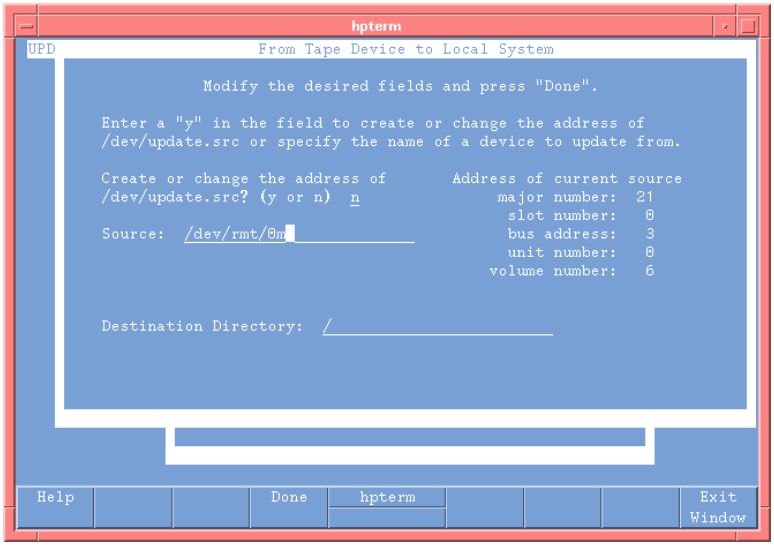
2 Select ‘From Tape Device to Local System ...’ with the cursor keys, then press [Return] or [Enter] key, see Figure 35.

Figure 35 Select Tape Device as Update Source



3 Type in '/dev/rmt/0m' as the Source and click on Done, see Figure 36.

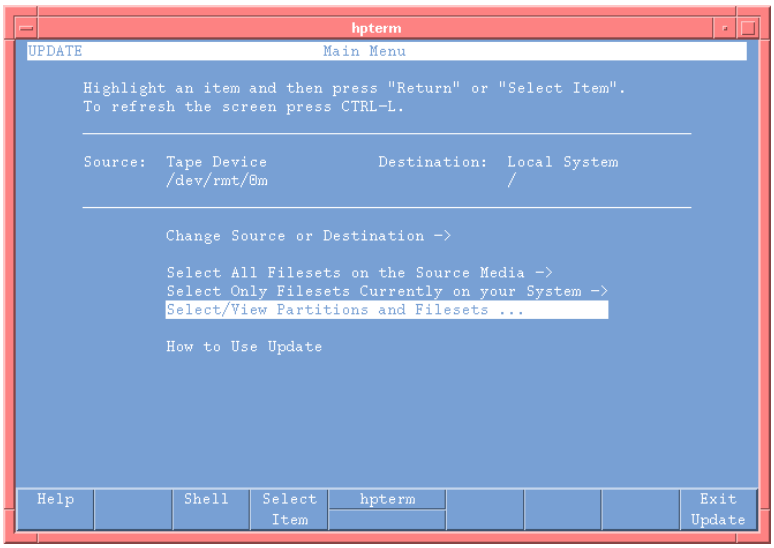
Figure 36 Type in '/dev/rmt/0m' as the Source



NOTE: If a problem occurs at this point, it is likely that the system cannot communicate with the Tape Drive. It is either not properly connected or not properly configured in the Unix environment. Please refer to the Appendix B, Configuring a SCSI Tape Drive, on page 171.

4 Finally the following window pops up, see Figure 37.

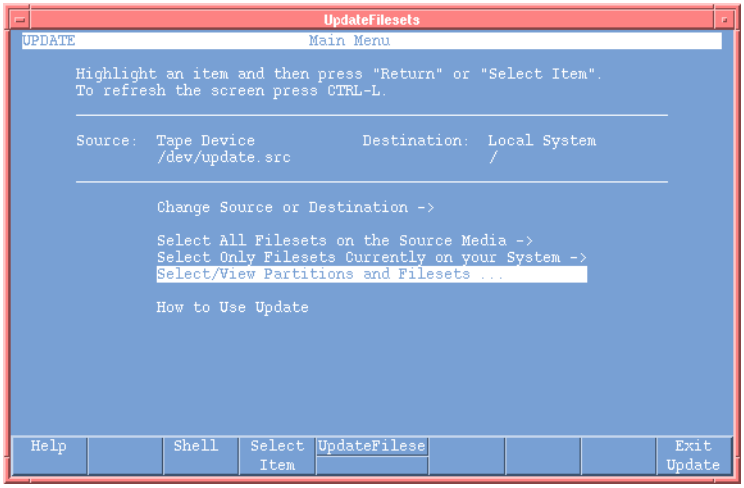
Figure 37 UpdateFilesets Window with Tape Drive as Update Source



H. Continuing Steps for Loading New Software Revision

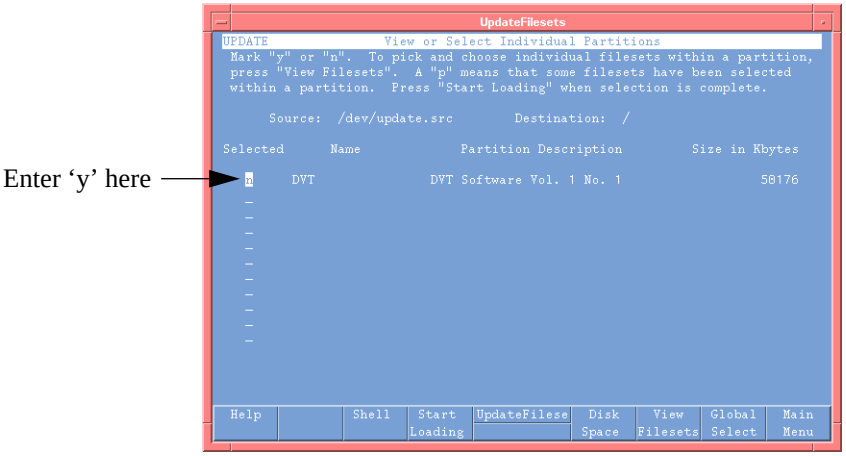
5 Select ‘Select/View Partitions and Filesets ...’ with the cursor keys, then press [Return] or [Enter] key, see Figure 38.

Figure 38 Select ‘Select/View Partitions and Filesets ...’



6 Select the ‘**DVT**’ partition, by entering a ‘**y**’ in the ‘Selected’ column, see Figure 39.

Figure 39 Mark ‘DVT’ Software for Installation



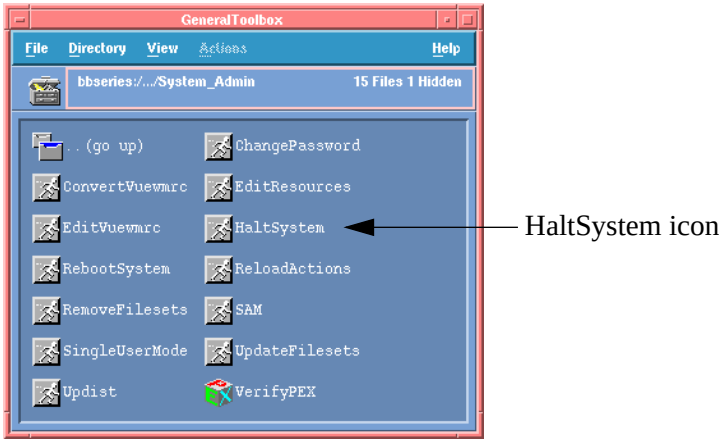
7 Click on the Start Loading button, and then confirm with ‘**y**’ to the question “Start loading filesets now?”. This step takes several minutes. You must wait for the message: **“Press [Return] to exit...”.**

8 When loaded, press the [Return] or [Enter] key.

I. Halt System

1 Double click on the ‘HaltSystem’ icon in the GeneralToolbox/System_Admin menu window, see Figure 40.

Figure 40 HaltSystem Icon in the GeneralToolbox/System_Admin Menu



2 Confirm by clicking on the OK, Halt System button.

3 Switch off the VXI Frame when the following message is displayed in the bottom left of the display:

```
‘Halted, you may now cycle power’
```

J. Disconnect Tape Drive

1 Push the eject button on the front of the Tape Drive to remove the tape

2 Switch off Tape Drive.

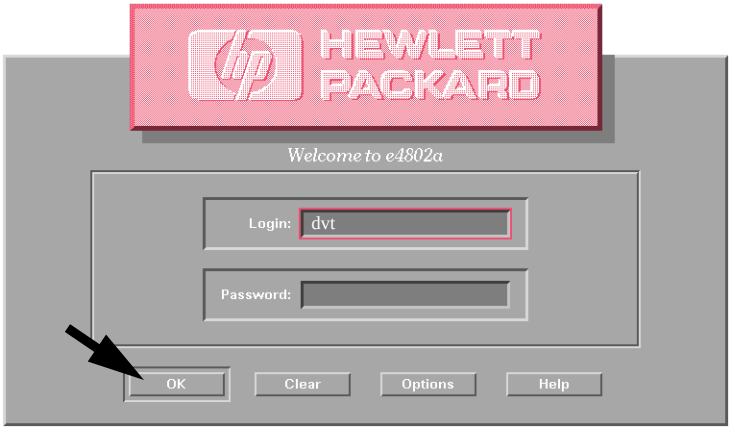
3 Disconnect SCSI cable from the Disk Module.

4 Re-connect Termination Connector to the Disk Module.

K. Power On System and Log In as ‘dvt’

1 Switch on mainframe and wait for the system to display the Login screen:

Figure 41 VUE Login Screen



2 Login as ‘**dvt**’, no password required in an HP E4829A/B system, or as ‘**bisdn**’ in an HP BSTS System. The ‘DVT’ icon should be displayed in the HP VUE panel, see Figure 42.

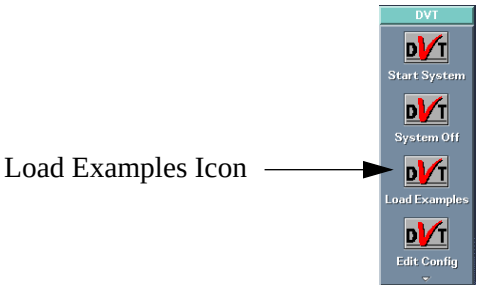
Figure 42 VUE Front Panel with the DVT Icon on an HP E4829A/B System

Figure 43 VUE Front Panel with the DVT Icon on an HP BSTS System

L. Load Examples

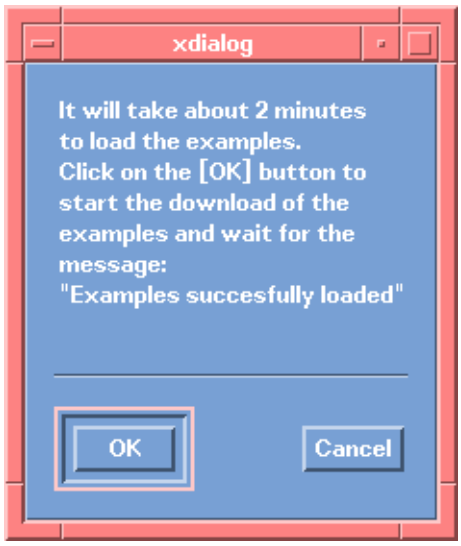
1 Click on the DVT Load Examples icon, see Figure 44.

Figure 44 Load Examples Icon in the DVT Subpanel



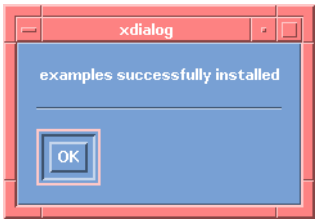
2 Click on OK to start the examples download process.

Figure 45 Dialog box



3 Wait for the following dialog box to be displayed, and click on OK, see Figure 46:

Figure 46 Dialog Box ‘examples successfully installed’

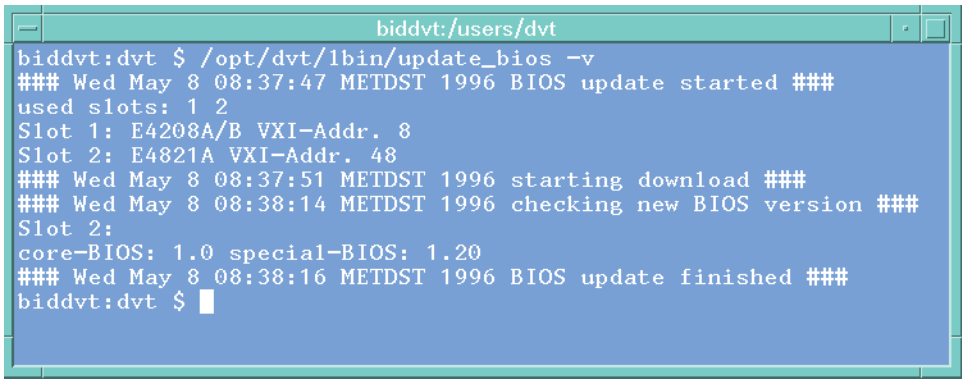


M. Firmware Download

1 Open a command input window ‘hpterm’

2 Start firmware download by typing the command **`update_bios -v`** at the user prompt (prompt example: biddvt:dvt $):
`biddvt:dvt $ /opt/dvt/lbin/update_bios -v`
then press [Enter] or [Return] key.

Figure 47 Firmware Download



N. Start the Digital Verification Tools (DVT) Software

1 Start the software by clicking once on the ‘DVT’ icon, see Figure 42.

NOTE: **Automatic Generation of Configuration Files:**

If there are no configuration files present the system automatically generates a set of configuration files dvt.its and dvt.sys.

1 Wait until the following window is displayed, then click on OK:

Figure 48 New Configuration Files Creation Dialog Box

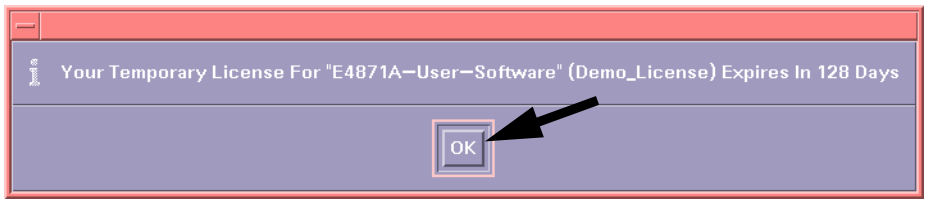
2 Click again on the ‘DVT’ icon in the VUE front panel, see Figure 40.

Expiring License Dialog Boxes

With the software update there are temporary licences included. Within a 3-months time frame these licenses have to be changed to permanent licenses, please refer to Chapter 10, Licensing, on page 131, for how to get and install the permanent licenses.

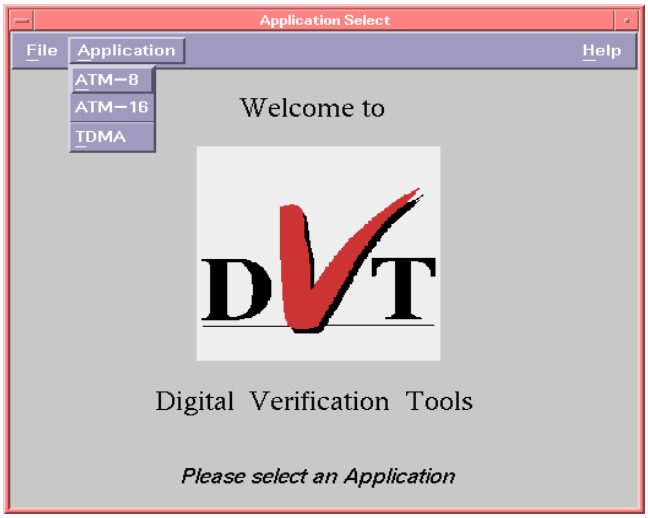
3 Click on the OK button in each displayed expiring license dialog box

Figure 49 Expiring License Dialog Box



2 After several seconds the ‘Application Select’ window pops up. Depending on the personality SW and licenses installed, select Application>ATM-8 (or ATM-16):

Figure 50 Select ATM-8 (or ATM-16) to Start the HP E4829A/B System



3 Again, after a few seconds the ‘PARBERT_SYSTEM’ system configuration window is displayed, see Figure 51:.

Figure 51 HP E4829A/B System Configuration Window

O. Verify Operation

To verify operation of the new installed HP E421A module and its associated software refer to the “Getting Started Guide”, p/n E4871-91011.

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Chapter 7

Software Installation from CD-ROM

Installation of the HP E4871A User Software

What you need

- CD-ROM Drive, for example HP C2943A
- SCSI Cable, for example HP C2908A
- CD-ROM containing the latest User Software Revision

General Software Installation Hints

NOTE: It is recommended to backup the current system, and all setups stored in the database, so that if any problems occur during the software installation the original system can be recovered.

Some software installation steps should be followed only when installing the HP E4871A software into an existing HP E4829A/B Parallel Cell Traffic Generator and Analyzer System. These steps are labelled as “HP E4829A/B Systems only”.

Some software installation steps should be followed only when installing the HP E4871A software into an existing HP Broadband Series Test System (BSTS). These steps are labelled as “HP BSTS Systems only”.

All other software installation steps have to be followed when installing the HP E4871A software into HP E4829A/B and BSTS systems.

General Procedures

Update of the User Software in an HP E4829A/B System

Installation of the User Software in an HP BSTS System

N. Firmware Download, see page 88.

O. Start the Digital Verification Tools (DVT) Software, see page 89.

P. Verify Operation, see page 90.

Update of the User Software in an HP BSTS System

Same steps as Installation, including step:

E. Remove Old Software Revisions (HP E4829A/B Systems only), see page 79.

A. Power Down System

If the system is not already powered down, please refer to “A. Power Down the System”, Chapter 4, Hardware Installation, on page 39.

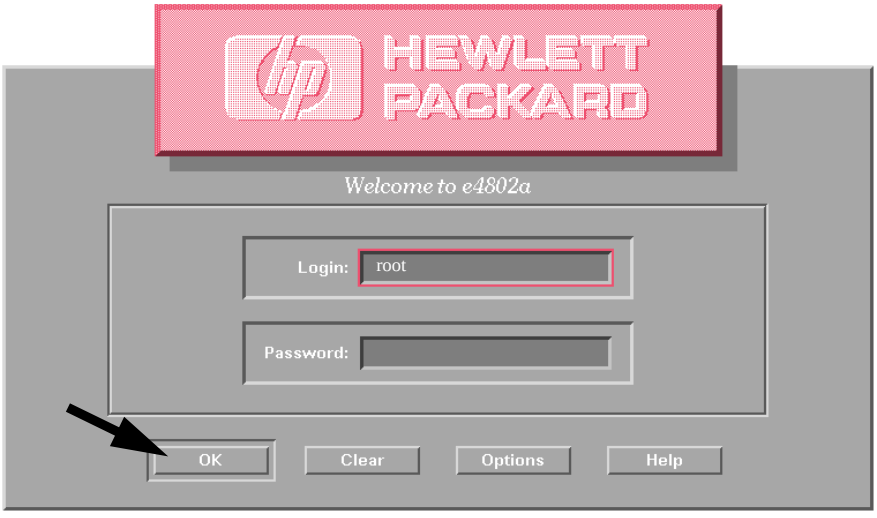
B. Connect CD-ROM Drive

1. Disconnect the High Density SCSI Termination Connector from the Disk Module (E4208A/B). The terminator is typically connected to the right SCSI connector.
2. Connect CD_ROM Drive to the right SCSI connector on the Disk Module using the SCSI Cable.
3. Check whether the SCSI Termination Connector (delivered with the CD-ROM Drive) is connected to the second connector of the CD-ROM Drive.
4. Check that the SCSI ID switch at the rear of the CD-ROM Drive is set to “2” (SCSI address 2 is the default value of the HP C2943A CD-ROM Drive)
5. Connect Power Cable to CD-ROM Drive and switch on.

C. Power On System and Log In as ‘root’

1. Switch on the monitor (if not already on) and then the mainframe. Wait for the VUE login screen to be displayed, see Figure 52.
2. Login as ‘**`root`**’. If the system defaults have not been changed, there is no password required in an HP E4829A/B System, see Figure 52. In an HP Broadband Series Test System (BSTS), refer to the HP BSTS Installation Guide for a root password:

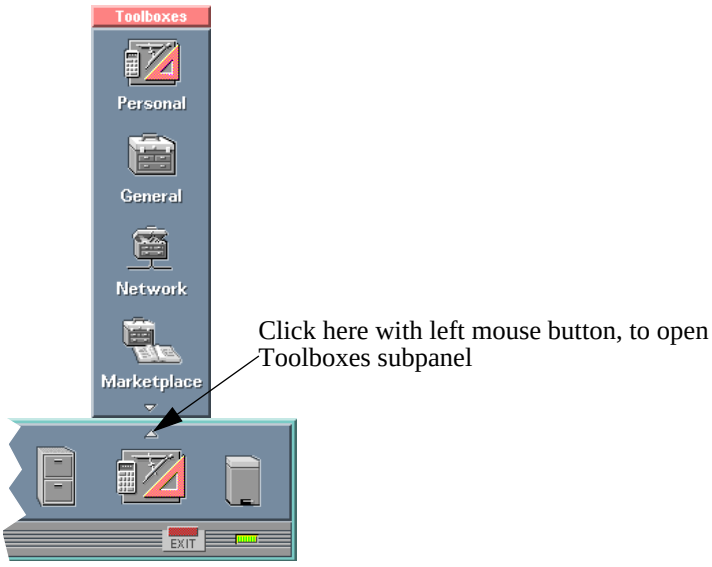
Figure 52 VUE Login Screen



D. Open ‘General Toolbox>System_Admin’ Menu

1 Open ‘Toolboxes’ subpanel, see Figure 53.

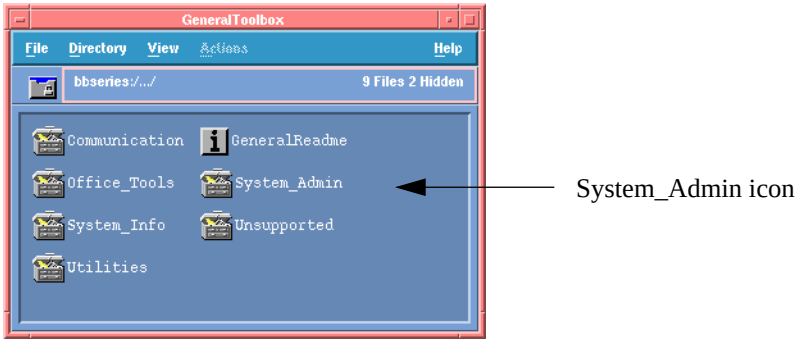
Figure 53 Toolboxes Subpanel



2 Single click on ‘General’, to open the General Toolbox window, see Figure 53.

3 From the ‘GeneralToolbox’ window, double click on the ‘System_Admin’ icon, see Figure 54.

Figure 54 GeneralToolbox Window

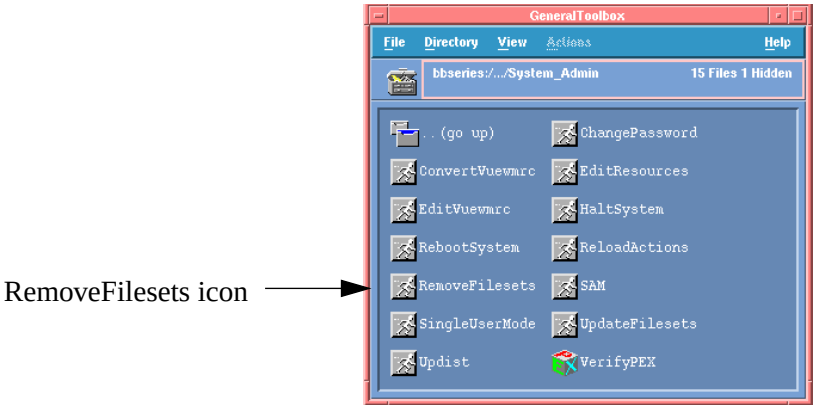


E. Remove Old Software Revisions (HP E4829A/B Systems only)

NOTE: All existing database settings and cells are automatically backed up and imported to the updated system.
The removal of old software revision is not necessary when the software is installed for the first time.

1 Double click on the ‘RemoveFilesets’ icon, see Figure 55.

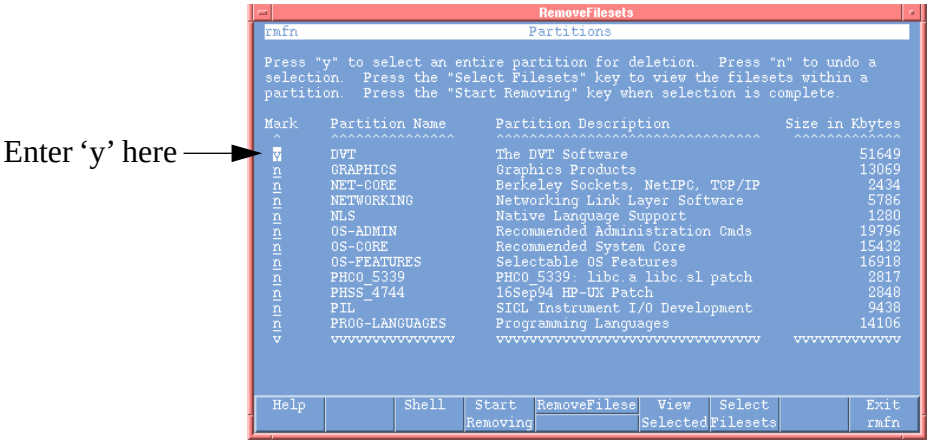
Figure 55 RemoveFilesets Icon in the GeneralToolbox/System_Admin Menu



2 Select the ‘**DVT**’ partition by entering a ‘**y**’ in the Mark column, see Figure 56.

NOTE: Make sure that only the ‘**DVT**’ partition is marked ‘**y**’ for removal. If other portions are removed by accident this could lead to serious system faults.
When the current User Software is Revision 1.0, then the fileset is named “**LEGOS**”, so mark the “**LEGOS**” fileset for removal.

Figure 56 Mark DVT Software for Removing



3 Click on the Start Removing button, and then confirm with '**y**' to the question "Do you want to start removing now?". The system will then start removing the old software revision fileset.

4 When removal is complete, click the Partition Screen button.

5 Click on the Exit rmfn button, confirm by entering '**y**', and Press [Return] or [Enter] key.

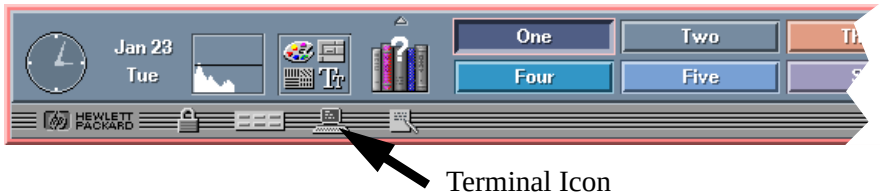
F. Mount a CD-ROM Drive (HP E4829A/B System only)

NOTE: For BSTS Systems skip this task and perform the next step H. Load New Software Revision from CD-ROM, see page 84.

1 Load the CD-ROM Drive with the CD containing the new software revision.

2 Click on the Terminal Icon in the VUE front panel to open a command input window (hpterm):

Figure 57 Terminal Icon in the VUE Front Panel



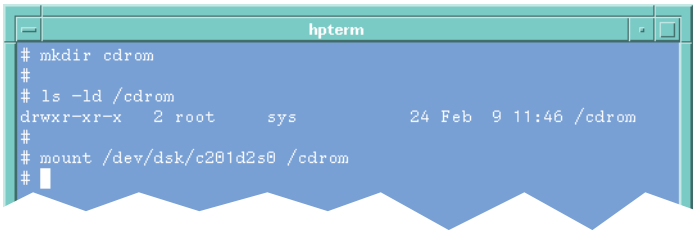
3 Create a directory by typing the following command at the root prompt (#):
`# mkdir /cdrom`
then press the [Return] or [Enter] key, see Figure 58.

NOTE: Directory name '/cdrom' is an example, you can use this name, but if the directory '/cdrom' already exists the system replies with the information that directory already exists, then use a different directory name, for example '/cdrom_dvt'.

4 Check that the directory was created by typing the following command at the root prompt (#):
`# ls -ld /cdrom`
then press the [Return] or [Enter] key, see Figure 58.

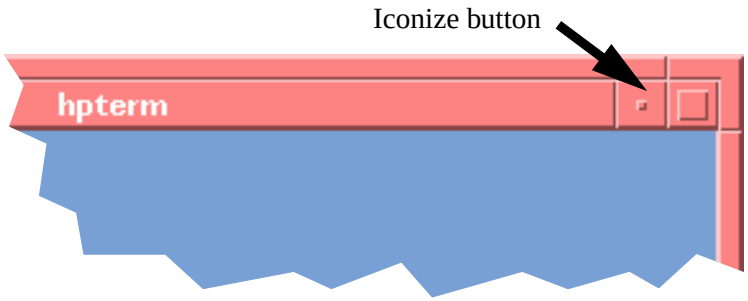
5 Mount the CD_ROM drive by typing the following command at the root prompt: (SCSI ID of the CD-ROM drive is "2", the 3rd character from the end of the device file '/dev/dsk/c201d2s0' represents the SCSI ID):
`# mount /dev/dsk/c201d2s0 /cdrom`
then press the [Return] or [Enter] key, see Figure 58.

Figure 58 Command Input Window (hpterm)



6 Iconize the command input window, click on the iconize button

Figure 59 Iconize Button of the Window 'hpterm'

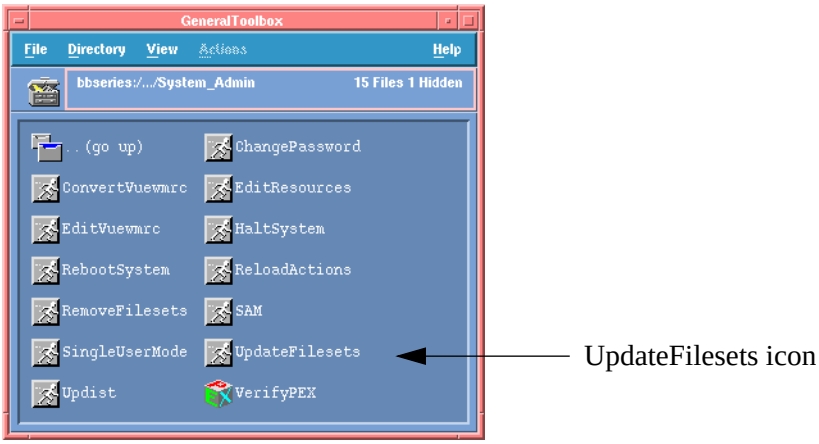


G. Change Update Source (E4829A/B System only)

NOTE: For BSTS Systems skip this task and perform the next step H. Load New Software Revision from CD-ROM, see page 84.

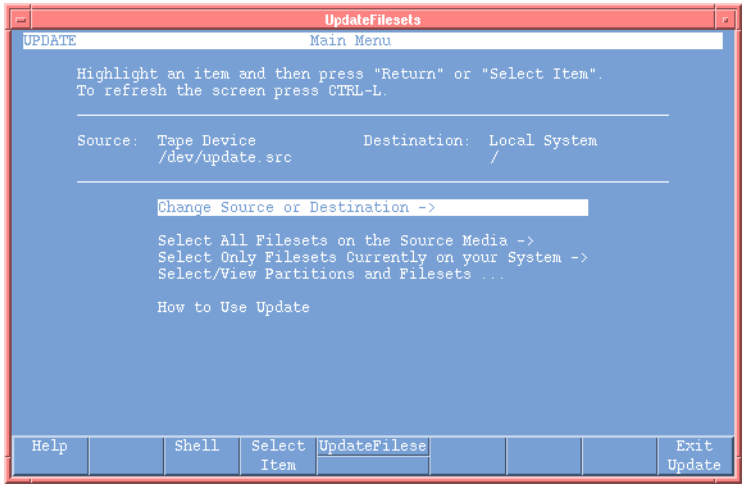
1 Double click on the ‘UpdateFilesets’ icon in the General Toolbox window, see Figure 60.

Figure 60 UpdateFilesets in the GeneralToolbox/System_Admin Menu



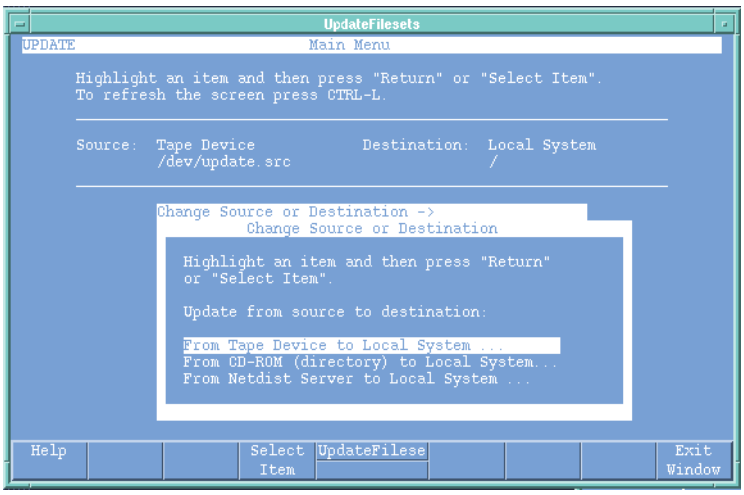
2 Select ‘Change Source or Destination ->’ with the cursor keys, then press [Return] or [Enter] key, see Figure 61.

Figure 61 Change Update Source



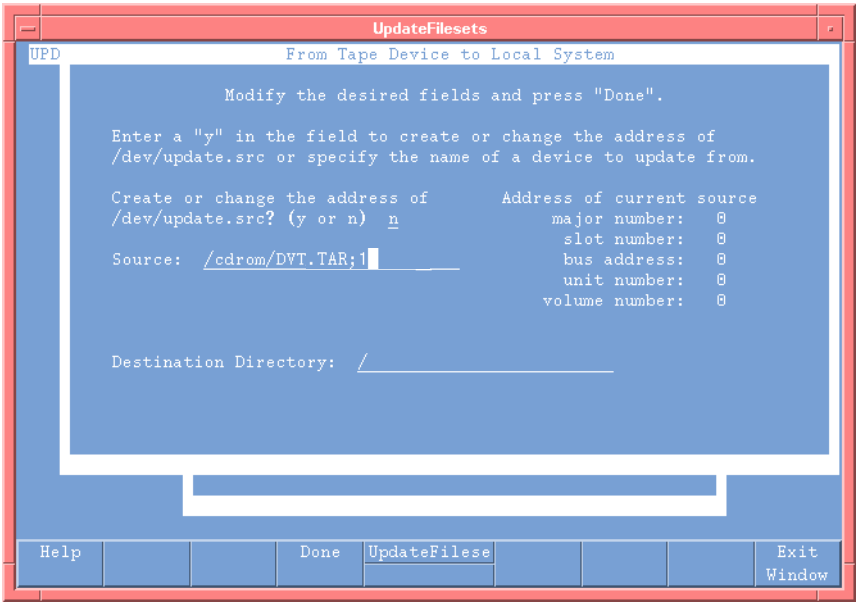
3 Select ‘From Tape Device to Local System...’ with the cursor keys, then press [Return] or [Enter] key, see Figure 62.

Figure 62 Select “From Tape Device to Local System”



4 Type in ‘**n**’ at the “Create or change the address ...?” query field, then type in ‘**/cdrom/DVT.TAR;1**’ as the Source and click on Done, see Figure 63.

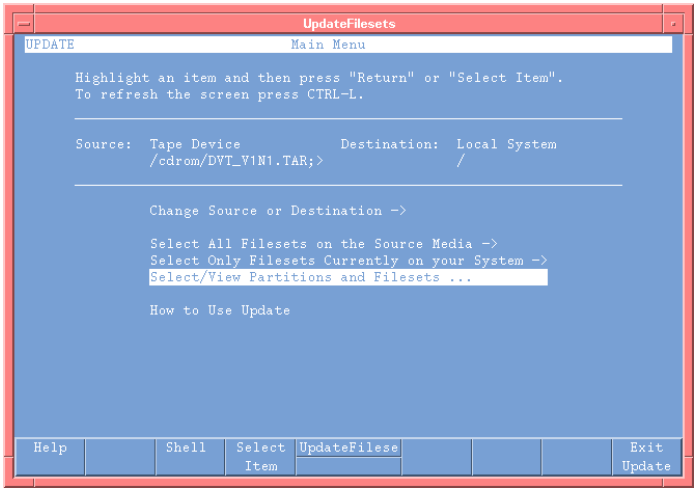
Figure 63 Type in ‘/cdrom/DVT.TAR;1’ as the Source



H. Load New Software Revision from CD-ROM

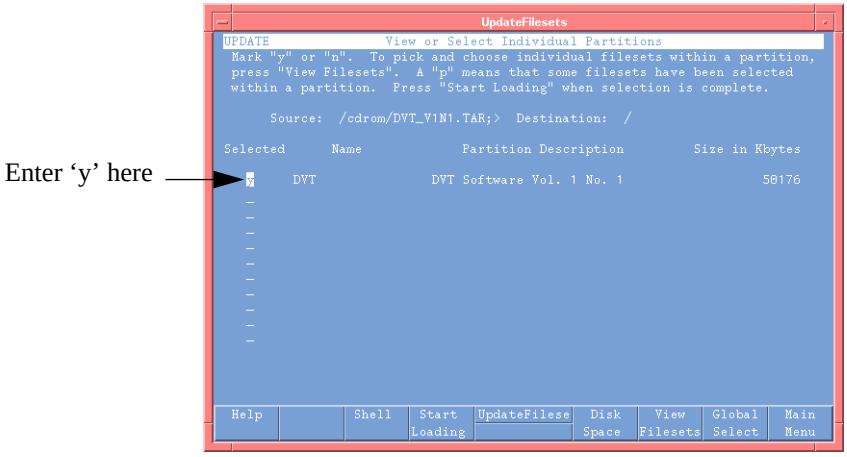
1 Select ‘Select/View Partitions and Filesets...’ with the cursor keys, then press the [Return] or [Enter] key, see Figure 64.

Figure 64 Select ‘Select/View Partitions and Filesets...’



2 Select the ‘**DVT**’ partition, by entering a ‘**y**’ in the ‘Selected’ column, see Figure 65.

Figure 65 Mark DVT Software for Installation



3 Click on the Start Loading button, and then confirm ‘**y**’ to the question “Start loading filesets now?”. This step takes several minutes. You must wait for the message: **“Press [Return] to exit...”**.

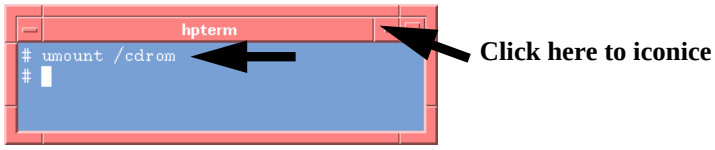
4 When loaded, press the [Return] or [Enter] key.

I. Unmount the CD-ROM (HP E4829A/B System only)

1 Open the iconized Command Input window ‘hpterm’ by double clicking on it.

2 Unmount the CD-ROM drive by typing the following command at the root prompt (#):
`# umount /cdrom`
then press the [Return] or [Enter] key.

Figure 66 Unmount CD-ROM

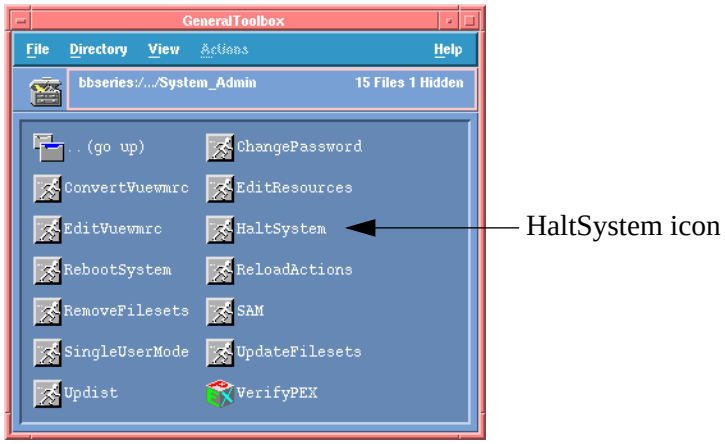


3 Iconize the Command Input window ‘hpterm’ again, by clicking on the iconize button, see Figure 66.

J. Halt System

1 Double click on the ‘HaltSystem’ icon in the GeneralToolbox/System_Admin menu window, see Figure 48.

Figure 67 HaltSystem Icon in the GeneralToolbox/System_Admin Menu



2 Confirm by clicking on the OK, Halt System button.

3 Switch off the VXI Frame when the following message is displayed in the bottom left of the display:

‘Halted, you may now cycle power’

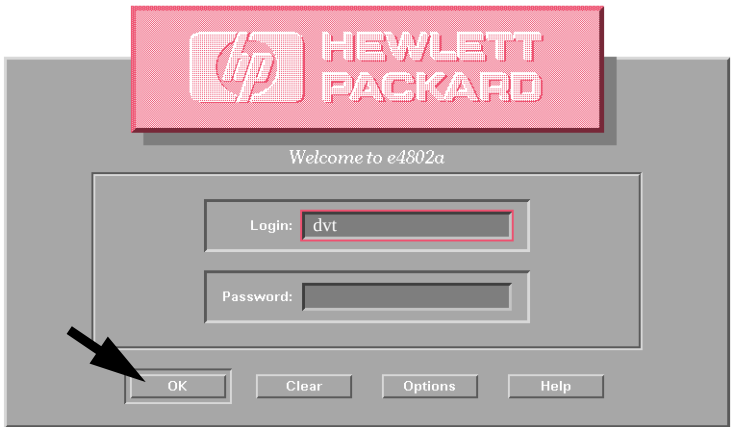
K. Disconnect CD-ROM Drive

1. Push the eject button on the front of the CD-ROM Drive to remove the CD.
2. Switch off the CD-ROM Drive.
3. Disconnect the SCSI cable from the Disk Module.
4. Reconnect the Termination Connector to the Disk Module.

L. Power On System and Login

1. Switch on mainframe and wait for the system to display the Login screen.

Figure 68 VUE Login Screen



2. Login as '**dvt**', no password required in an HP E4829A/B system, or as 'bisdn' in an HP BSTS System. The 'DVT' icon should be displayed in the HP VUE front panel, see Figure 69.

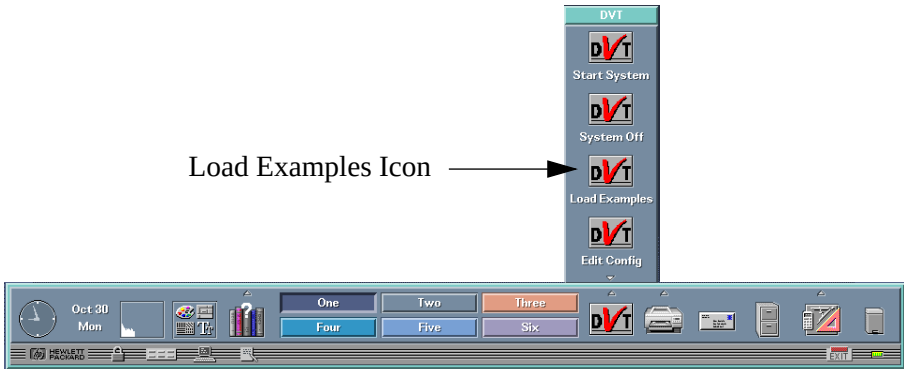
Figure 69 VUE Front Panel with the DVT Icon

Figure 70 VUE Front Panel with the DVT Icon on an HP BSTS System

M. Load Examples

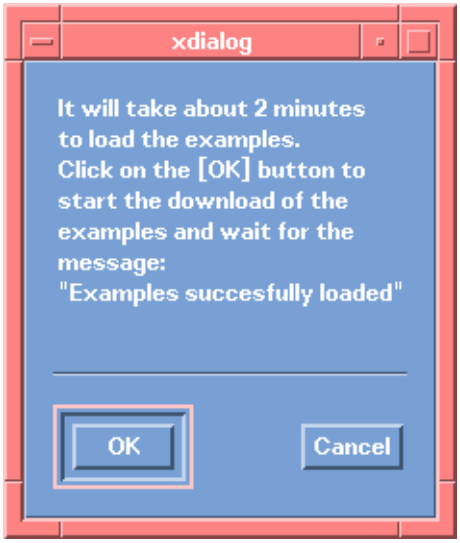
1 Click on the DVT Load Examples icon, see Figure 71.

Figure 71 Load Examples Icon in the DVT Subpanel



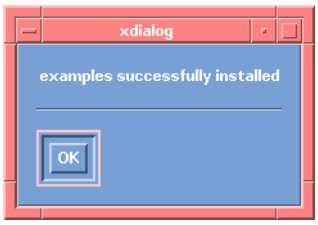
2 Click on OK to start the examples download process.

Figure 72 Dialog box



3 Wait for the following dialog box to be displayed, and click on OK, see Figure 73:

Figure 73 Dialog Box ‘examples successfully installed’

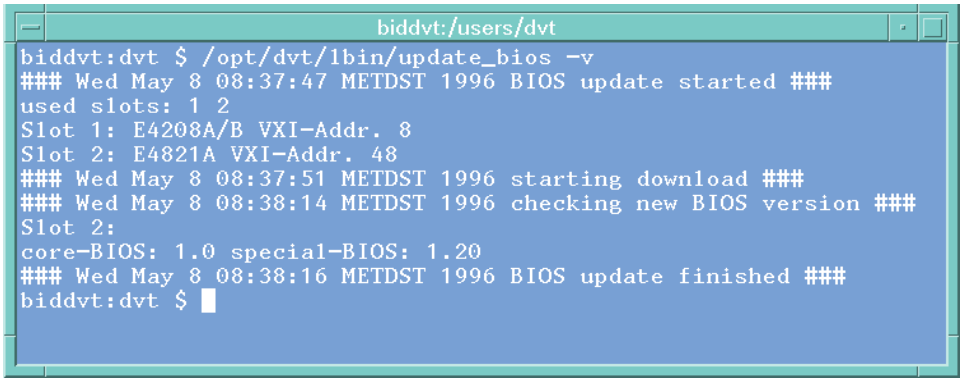


N. Firmware Download

1 Open a command input window ‘hpterm’

2 Start firmware download by typing the command **`update_bios -v`** at the user prompt (prompt example.: biddvt:dvt $):
`biddvt:dvt $ /opt/dvt/lbin/update_bios -v`
then press [Enter] or [Return] key.

Figure 74 Firmware Download



O. Start the Digital Verification Tools (DVT) Software

1 Start the software by clicking once on the ‘DVT’ icon..

Figure 75 VUE Frontpanel with DVT Icon

NOTE:

Automatic Generation of Configuration Files:

If there are no configuration files present the system automatically generates a set of configuration files dvt.its and dvt.sys.

1 Wait until the following window is displayed, then click on OK:

Figure 76 New Configuration Files Creation Dialog Box

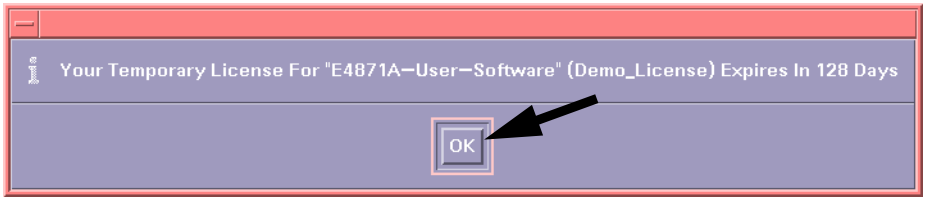
2 Click again on the ‘DVT’ icon in the VUE front panel, see Figure 40.

Expiring License Dialog Boxes

With the software update there are temporary licences included. Within a 3-months time frame these licenses have to be changed to permanent licenses, please refer to Chapter 10, Licensing, on page 131, for how to get and install the permanent licenses.

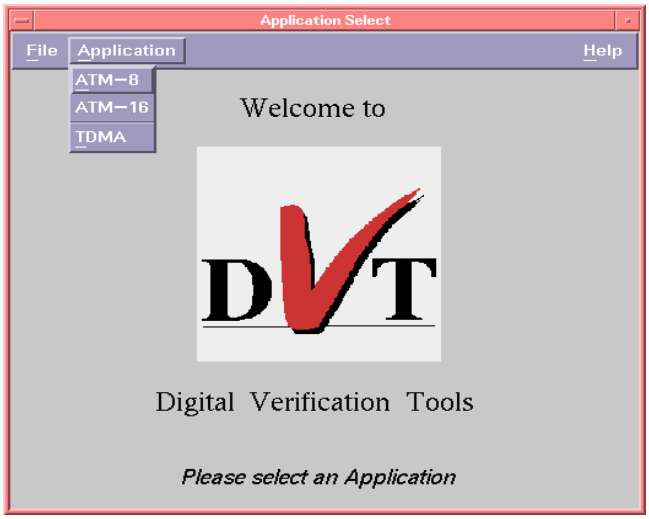
3 Click on the OK button in each displayed expiring license dialog box

Figure 77 Expiring License Dialog Box



2 After several seconds the ‘Application Select’ window pops up. Depending on the personality SW and licenses installed, select Application>ATM-8 (or ATM-16):

Figure 78 Select ATM-8 (or ATM-16) to Start the HP E4829A/B System



3 Again, after a few seconds the ‘PARBERT_SYSTEM’ system configuration window is displayed, see Figure 79:.

Figure 79 HP E4829A/B System Configuration Window

P. Verify Operation

To verify operation of the new installed HP E421A module and its associated software refer to the “Getting Started Guide”, p/n E4871-91011.

Chapter 8

Connecting System to a LAN

Linking the System to a Local Area Network (LAN)

The LAN hardware and software is already installed on the system. LAN support is configured into the system kernel. The system has a default dummy configuration, which only works in stand-alone mode. The system must not be connected to the network before setting the configuration to your real environment, otherwise serious network problems may arise.

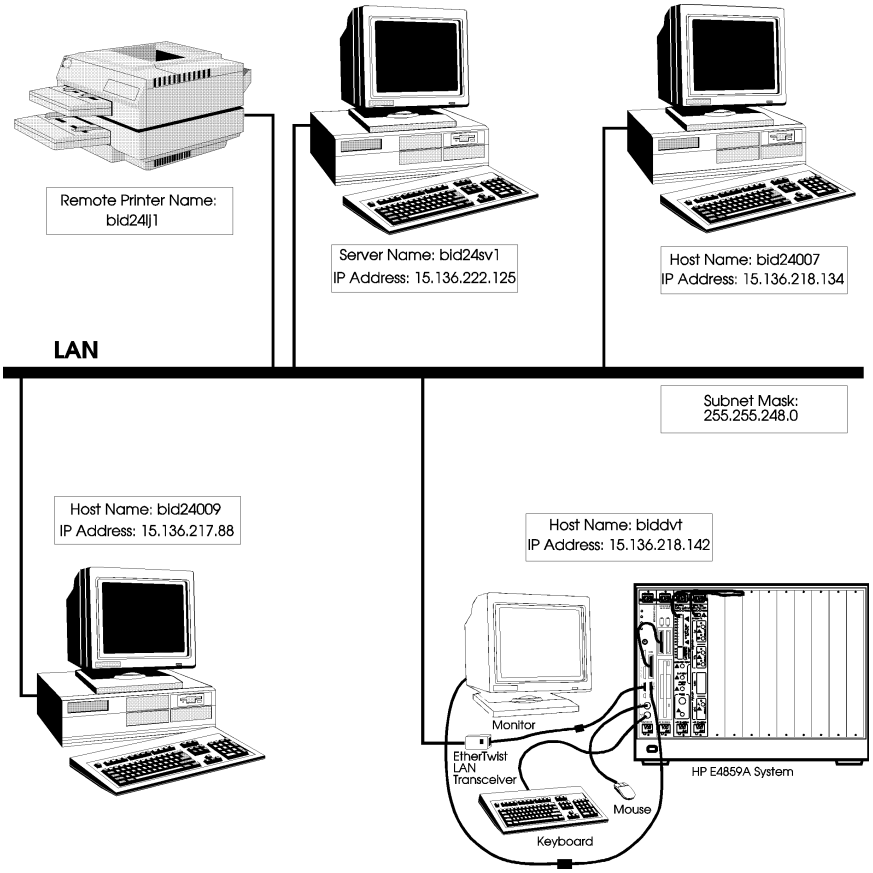
Before you can add your local network you need the following information:

- ❒ Hostname (System name)
- ❒ Internet Protocol Address (IP Address)
- ❒ Subnet-Mask (optional)

Example:

The following example network is used to demonstrate how to add a system to a local area network (LAN):

Figure 80 Example of a Local Area Network (LAN)



A. Get Required Data

Hostname (System name) in this example: biddvt

Internet Protocol Address (IP Address) in this example: 15.136.218.142

Subnet-Mask in this example: 255.255.248.0

B. Log Out

1 Close all applications, if appropriate. Then click on the Exit Icon in the VUE front panel:

Figure 81 Toolboxes Subpanel

Click here with left mouse button, to start the log out process

NOTE: If the system is switched off, then switch it on and wait for the VUE Login Screen

C. Connecting LAN Cable and Setting Switches

2 Change the switches on the Ethertwist Transceiver for linking the system to LAN:

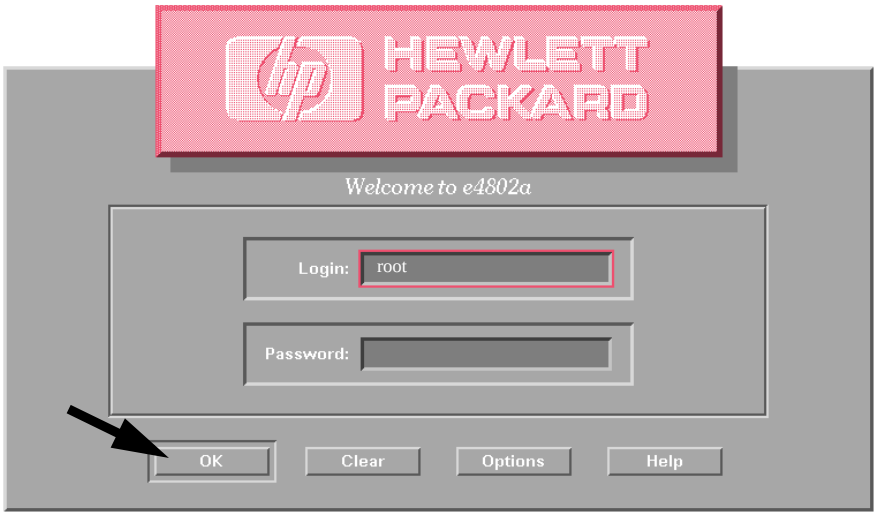
Figure 82 Switch Settings for LAN Connection

3 Connect the LAN cable's 10-Base-T connector to the Ethertwist Transceiver.

D. Log In as ‘root’

4 Login as ‘root’. If the system defaults have not been changed, there is no password required in a factory pre-configured system, see Figure 83.

Figure 83 VUE Login Screen



E. Open a Command Input Window (hpterm)

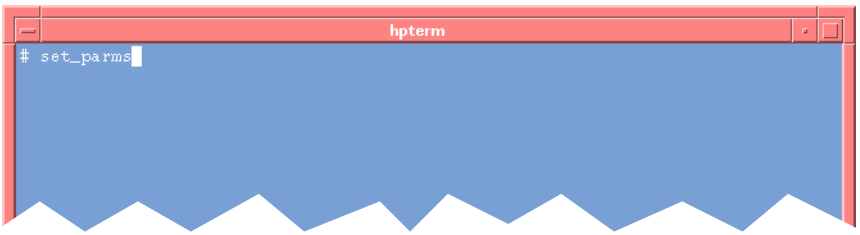
5 Click on the Terminal Icon in the VUE front panel to open a command input window (hpterm):

Figure 84 Terminal Icon in the VUE Front Panel

F. Linking the System to LAN by ‘set_parms’ Command

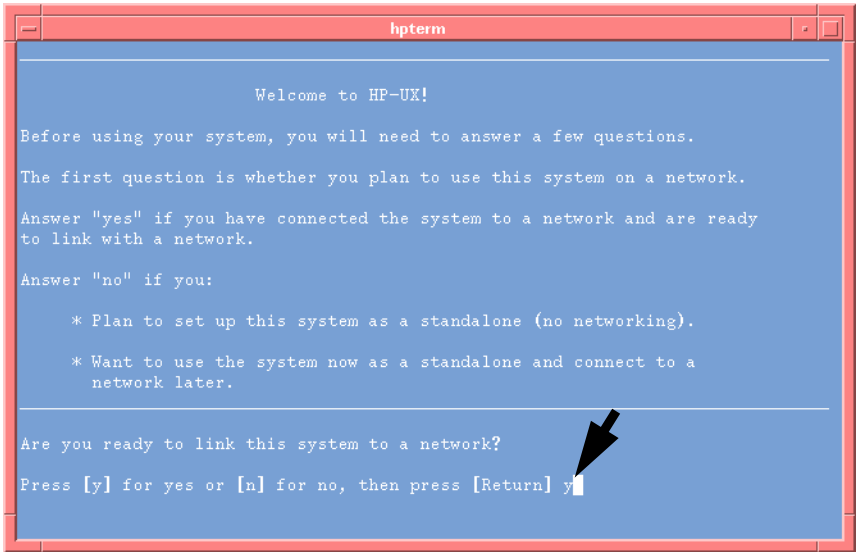
6 Type the following command line at the root prompt (#):
`# set_parms`
then press the [Enter] or [Return] key.

Figure 85 Input Command Window (hpterm)



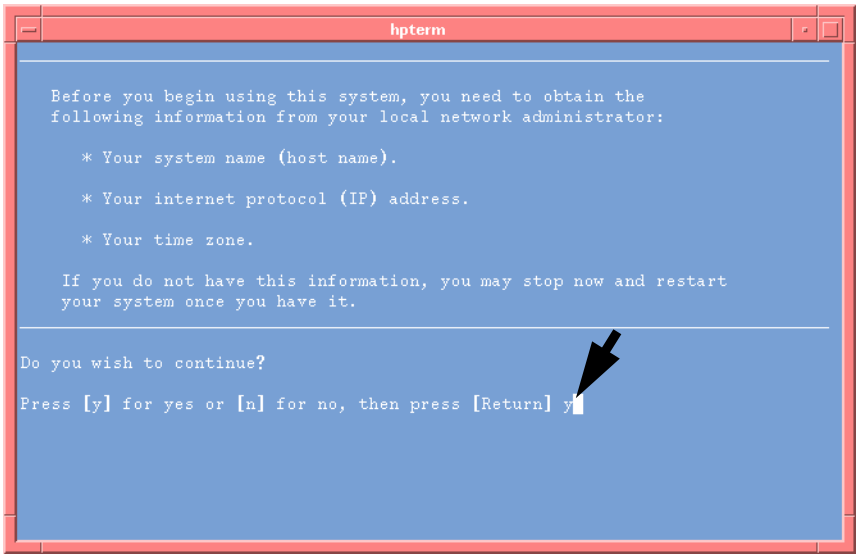
7 Type ‘**y**’ at the query prompt to link the system to a network:

Figure 86 Page 1 of ‘set_parms’



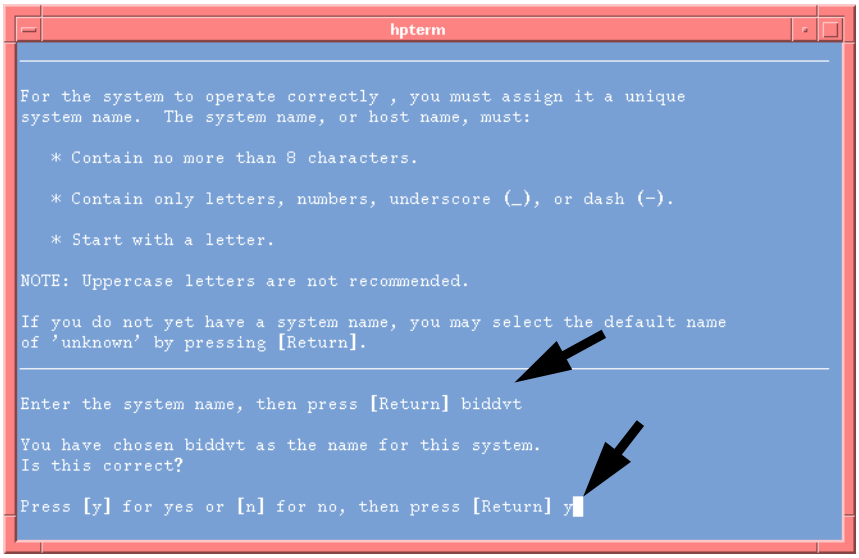
8 Type '**y**' at the query prompt to continue the linking process.

Figure 87 Page 2 of 'set_parms'



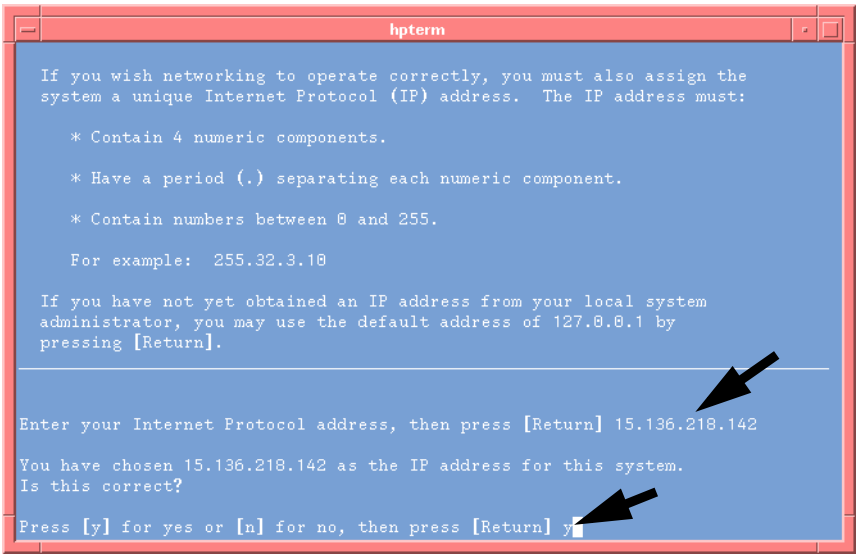
9 Enter the system name. Type at the query prompt for example: '**biddvt**', then press [Enter] or [Return] key, confirm with '**y**', and press [Enter] or [Return] key again:

Figure 88 Page 3 of 'set_parms'



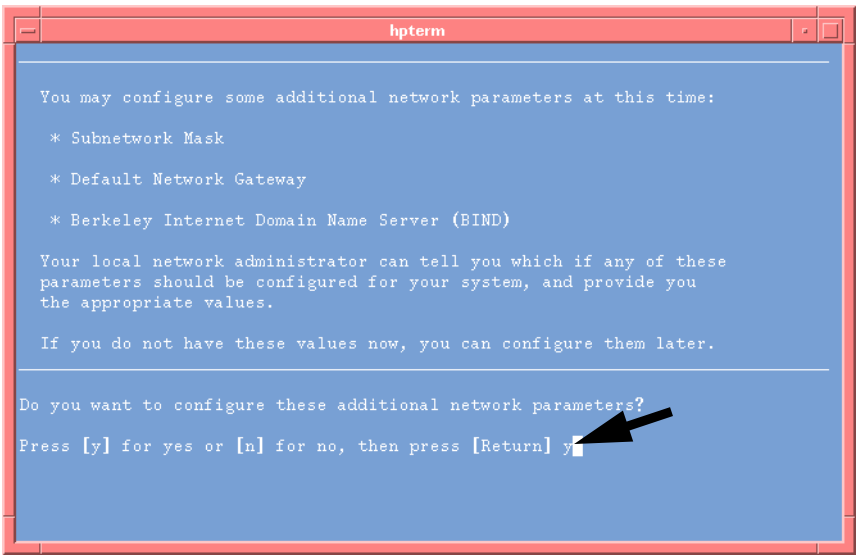
10 Enter the system IP address. Type at the query prompt for example: '**15.136.218.142**', then press [Enter] or [Return] key, confirm with '**y' and** press[Enter] or [Return] key again:

Figure 89 Page 4 of 'set_parms'



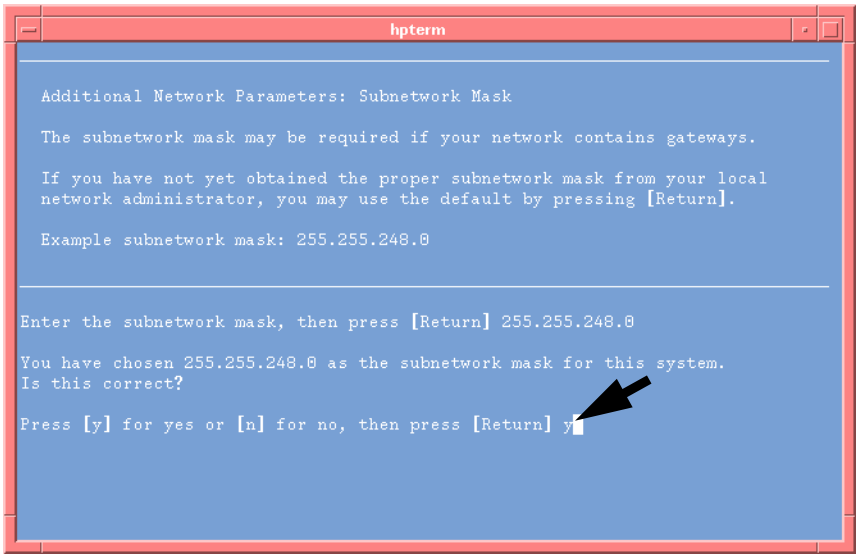
11 Configuring additional network parameters, subnet mask, Gateway, and Bind Server addresses. Type at the query prompt for example: '**y', then** press [Enter] or [Return] key. These parameters can also be configured later on.

Figure 90 Page 5 of 'set_parms'



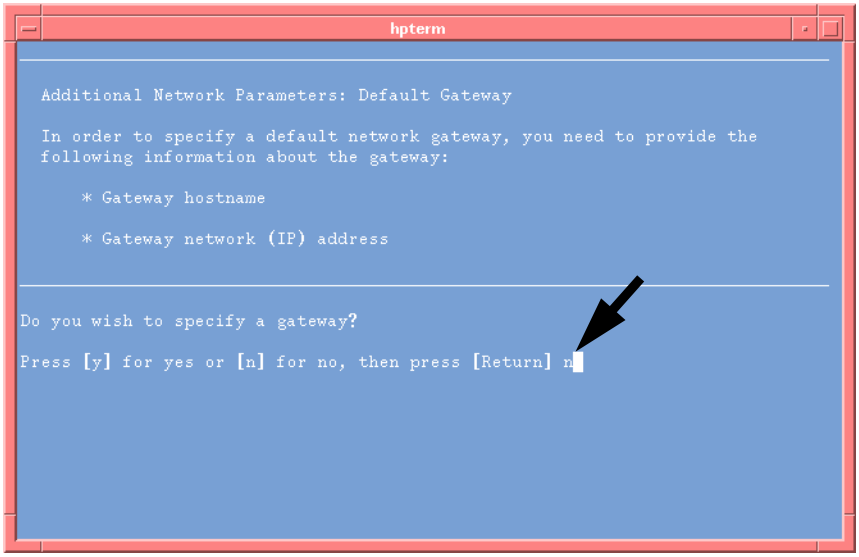
12 Entering a subnet mask. In this example type at the query prompt the subnet mask address '**`255.255.248.0`**", then press [Enter] or [Return] key. At the query prompt -type '**y**' and press [Enter] or [Return] key.

Figure 91 Page 6 of 'set_parms'



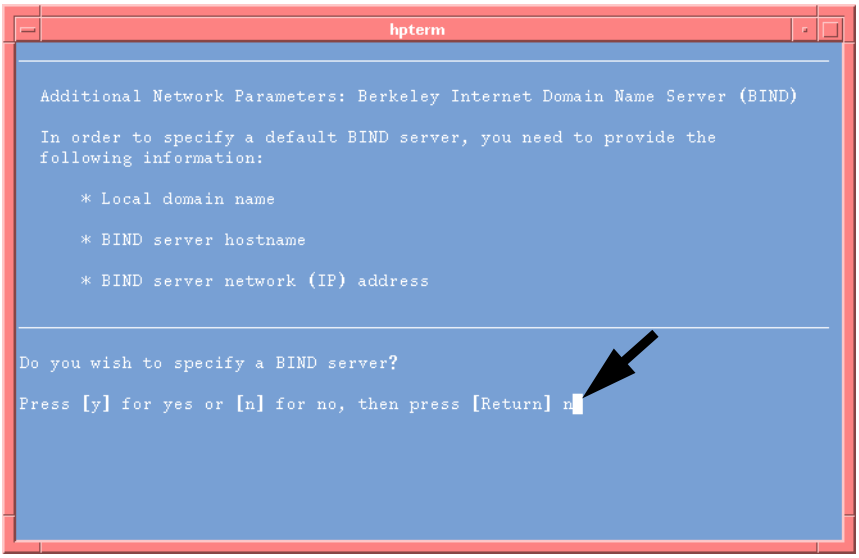
13 In this example there is no Gateway, so type at the query prompt: '**n**', then press the [Enter] or [Return] key:

Figure 92 Page 7 of 'set_parms'



14 In this example there is no Bind Server, so type at the query prompt: '**n**', then press the [Enter] or [Return] key:

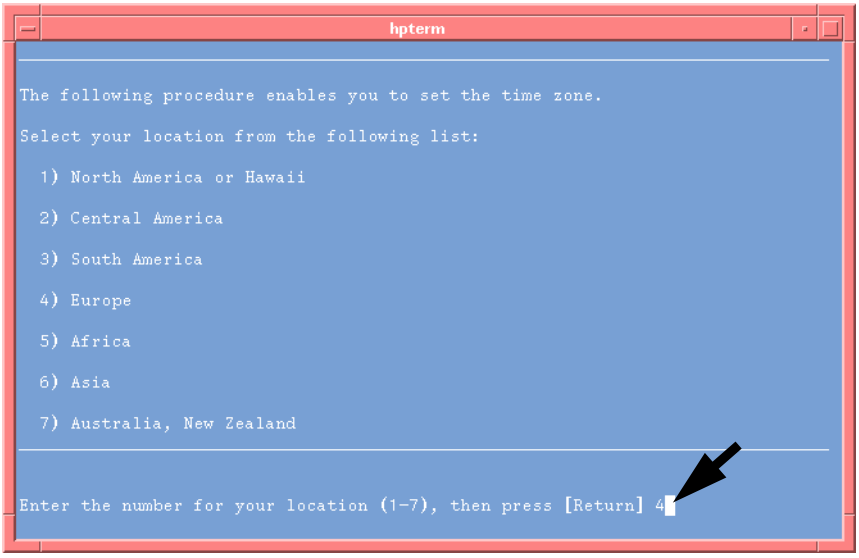
Figure 93 Page 8 of 'set_parms'



G. Time Zone and System Time Setting

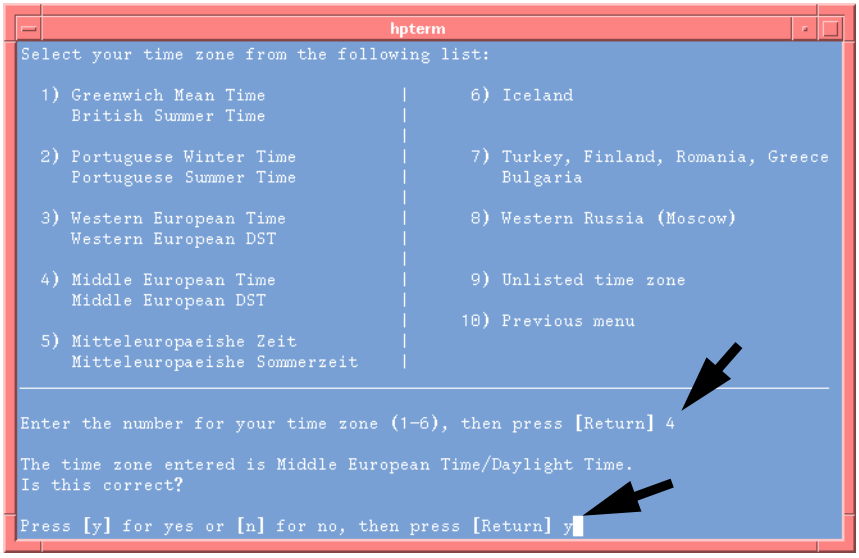
15 Select user Geographic Location. In the example Europe is selected by typing '**4**' at the query prompt followed by pressing the [Enter] or [Return] key:'

Figure 94 Page 9 of 'set_parms'



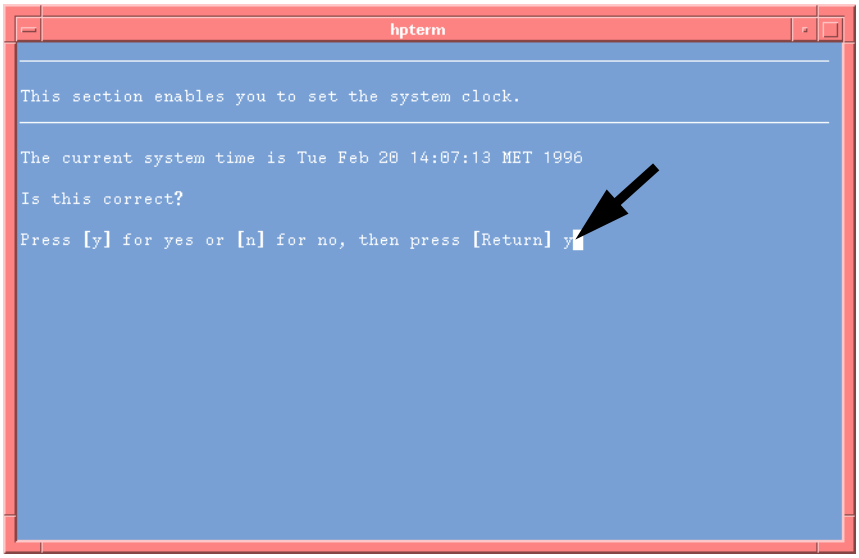
16 Select your Time Zone. In the example the time zone Middle European Time is selected by typing ‘4’ at the query prompt followed by pressing the [Enter] or [Return] key. Confirmed with ‘y’ and [Enter] or [Return] again:’

Figure 95 Page 10 of ‘set_parms’



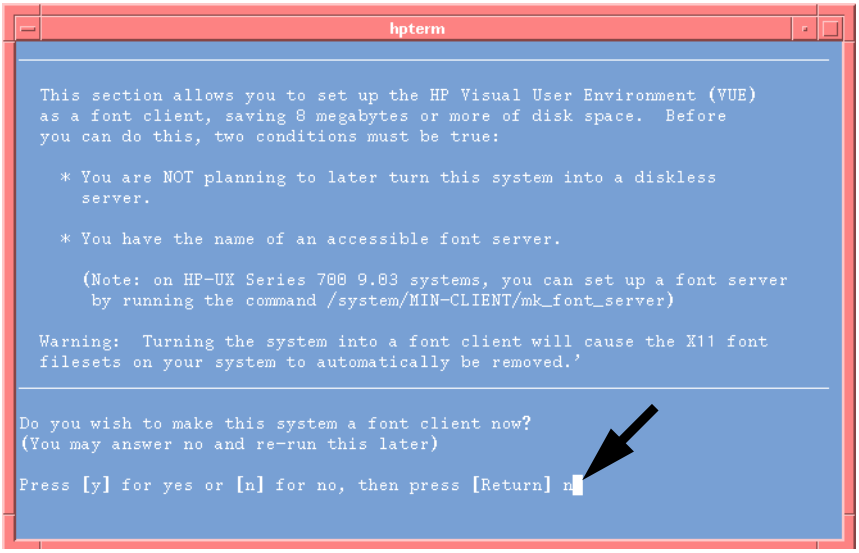
17 In the next menu page it is possible to set the system time to the current local time. In the example the system time is not to adjust, so at the query prompt it is typed ‘**y**’, then the [Enter] or [Return] key is pressed.:

Figure 96 Page 11 of ‘set_parms’



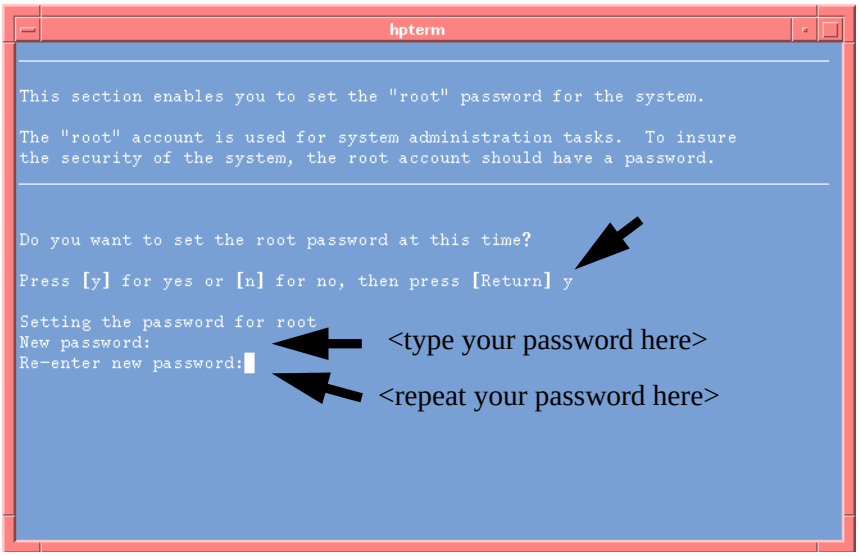
18 With the next menu it is possible to set VUE as a font client. In the example the VUE is not set as a font client, so type '**n**' and press [Enter] or [Return] key. Press [Enter] or [Return] key again as response to the additional information.

Figure 97 Page 12 of 'set_parms'



19 In the next menu page it is possible to set a root password. It is recommended to set a password. In the example a root password is set. For security reason the password is not displayed, so please type carefully. Press [Enter] or [Return] key again as response to the additional information.

Figure 98 Page 13 of 'set_parms'



20 Now linking the system to a network with the help of ‘set_parms’ utility is finished. In addition some system management files have to be updated, see next page.

Figure 99 Page 14 of ‘set_parms’

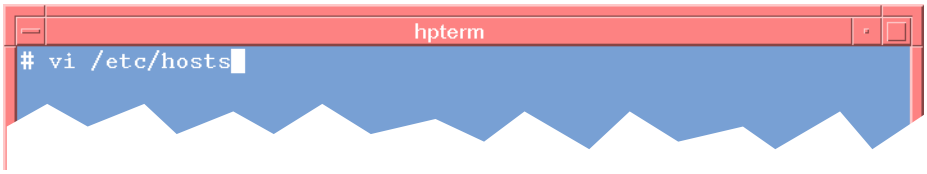
H. Editing of System Management Files

NOTE: Please follow the editing instructions very carefully, as wrong entries could cause system to malfunction. If you make any mistakes and you want to quit without saving, quit the edit mode by pressing [Esc] key followed by typing '**`:q!`**'. Then start editing of the file again.

Editing the '/etc/hosts' File

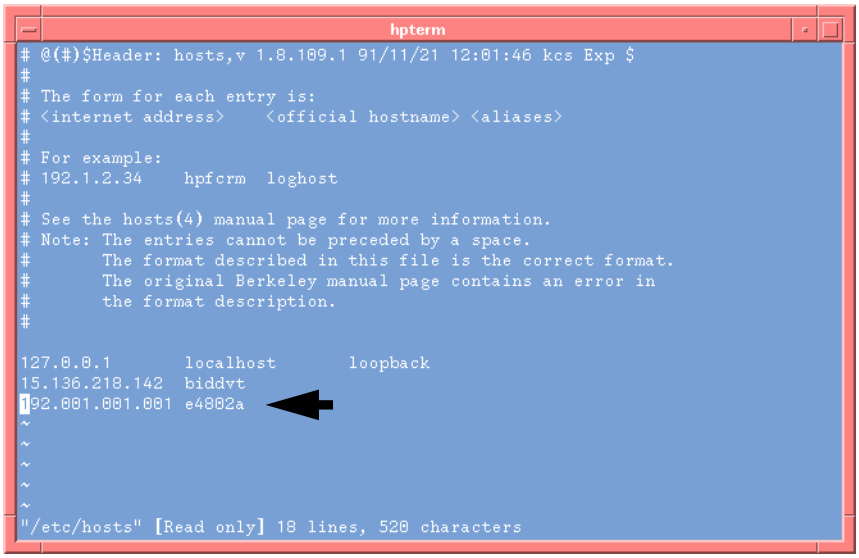
21 Edit the hosts file by typing the following command line at the root prompt (#):
`# vi /etc/hosts`
then press the [Enter] or [Return] key.

Figure 100 Editing of the '/etc/hosts' File'



22 Move the cursor to the line '192.001.001.001 e4802a', then type '**dd**':

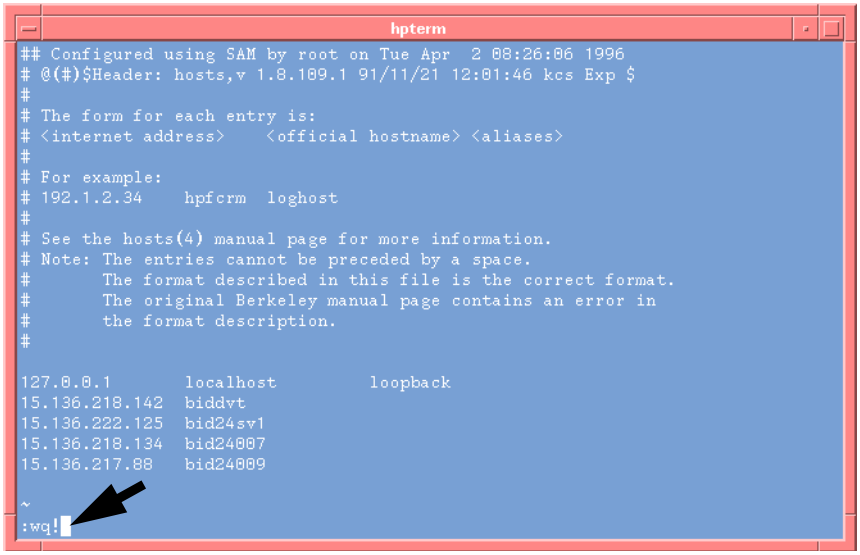
Figure 101 Deleting the Line with 'e4802a'



23 Add a line consisting of the IP address and the host name. Also, it is possible to include some other host names of systems connected to the same network. Here are the systems included in the example network, which is shown in Figure 80 on page 92 :

- Type '**o**', then the IP addresses and the host names.
- Press [Esc] when finished.
- Type '**:wq!**' and press the [Enter] or [Return] key to save and quite the editor:.

Figure 102 Adding Additional Hosts and Re-storing the edited '/etc/hosts/' File

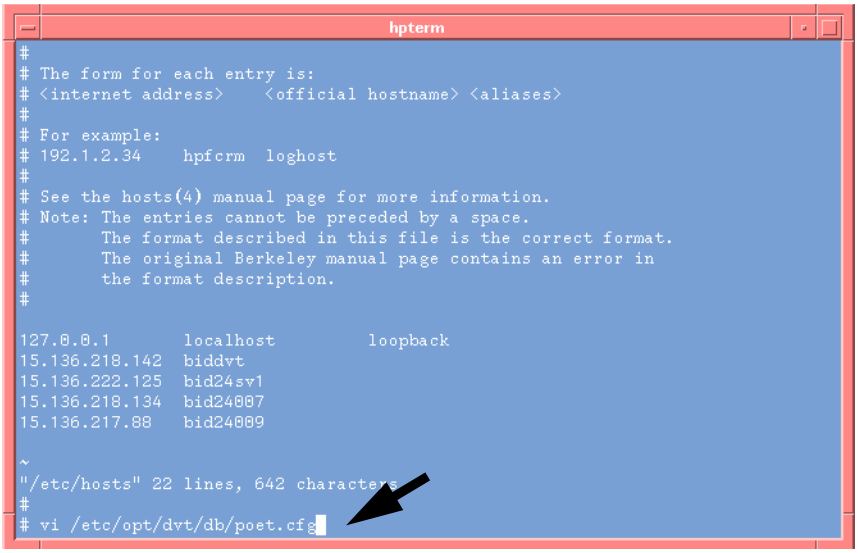


Editing '/etc/opt/dvt/db/poet.cfg' File

24 Change the line 'thisMachine:host=e4802a' so that it refers to the new hostname. Type the following command line at the root prompt:
`# vi /etc/opt/dvt/db/poet.cfg`
then press the [Enter] or [Return] key

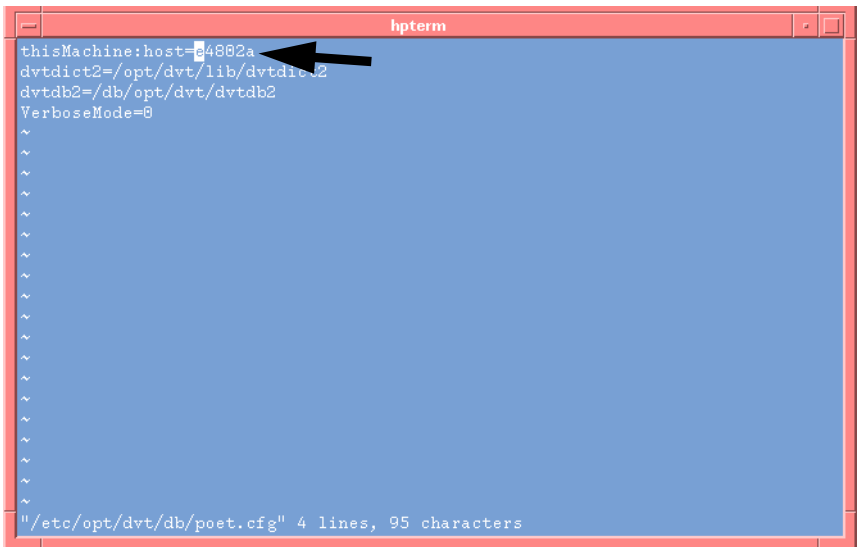
NOTE: In older systems the directory path is '/opt/legos/db/etc/poet.cfg'.

Figure 103 Editing of the '/etc/opt/dvt/db/poet.cfg' File



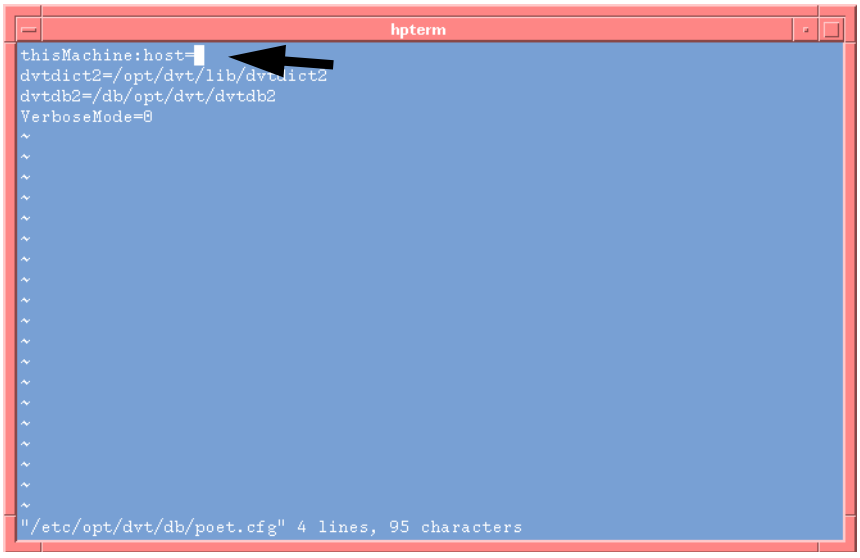
25 Move the cursor with the cursor keys to the "e" of e4802a.

Figure 104 Move Cursor to 'e4802a'



26 Type '**6x**' to delete the characters.:

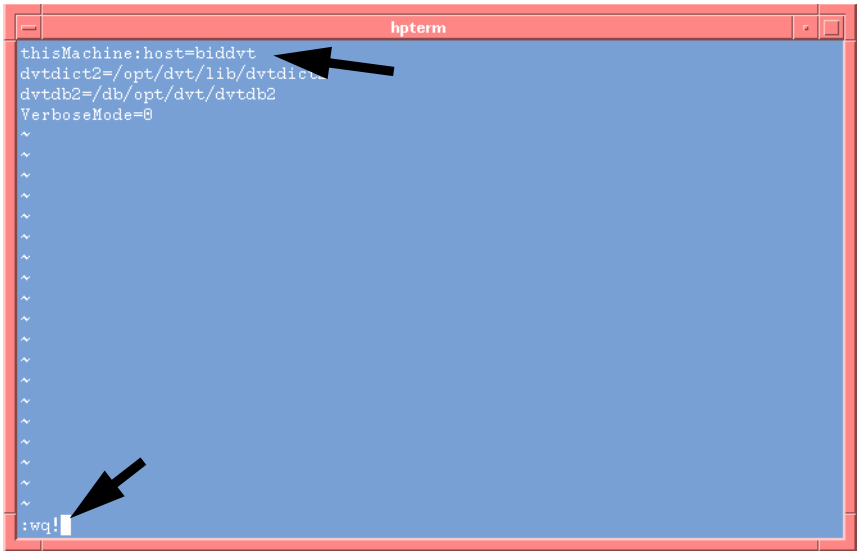
Figure 105 Remove 'e4802a'



27 Type '**a**', then the new hostname, in the example this is '**biddvt**'.

- Press the [Esc] key.
- Then type '**:wq!**' to save and quit the edited file, and press [Enter] or [Return] key:

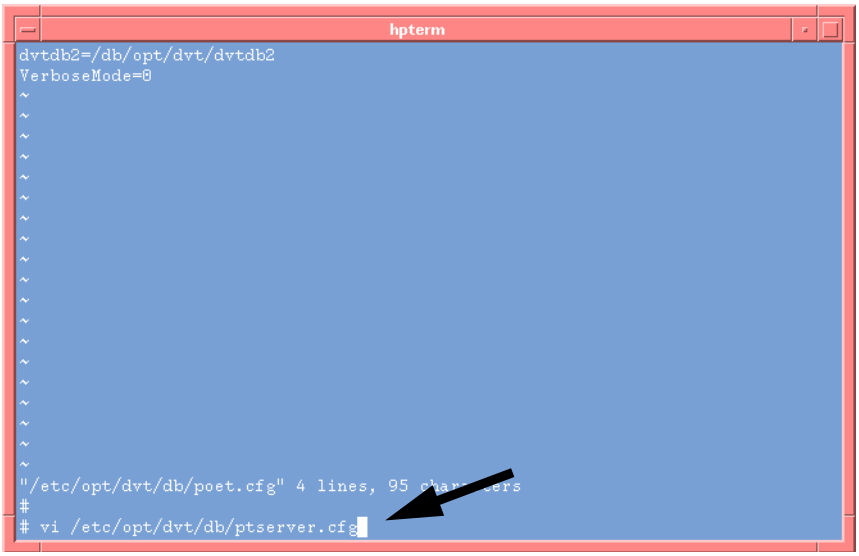
Figure 106 Re-store the '/etc/opt/dvt/db/poet.cfg/' File



Editing ‘/etc/opt/dvt/db/ptserver.cfg’ File

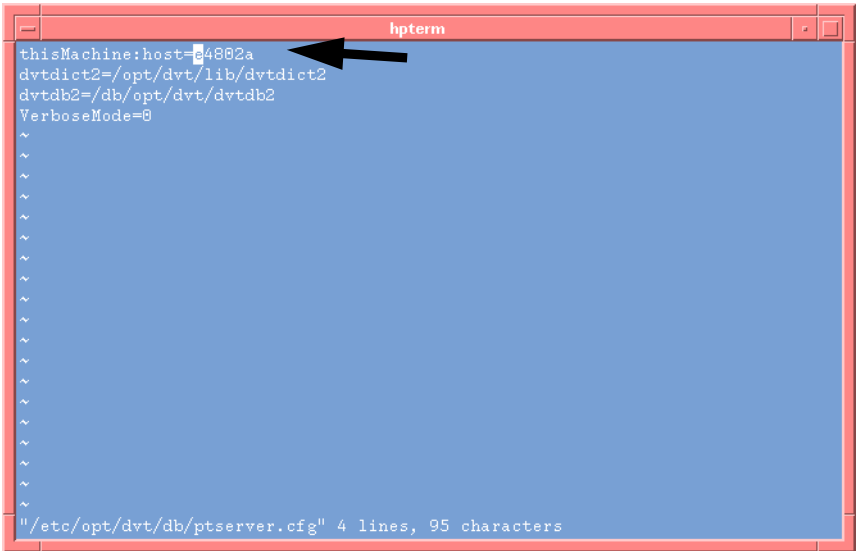
28 Change the line ‘thisMachine:host=e4802a’ so that it refers to the new hostname. Type the following command line at the root prompt:
`# vi /etc/opt/dvt/db/ptserver.cfg`
then press the [Enter] or [Return] key.

Figure 107 Editing of the ‘/etc/opt/dvt/db/ptserver.cfg’ File



29 Move the cursor with the cursor keys to the “e” of e4802a. Type ‘**`6x`**’ to delete the characters..

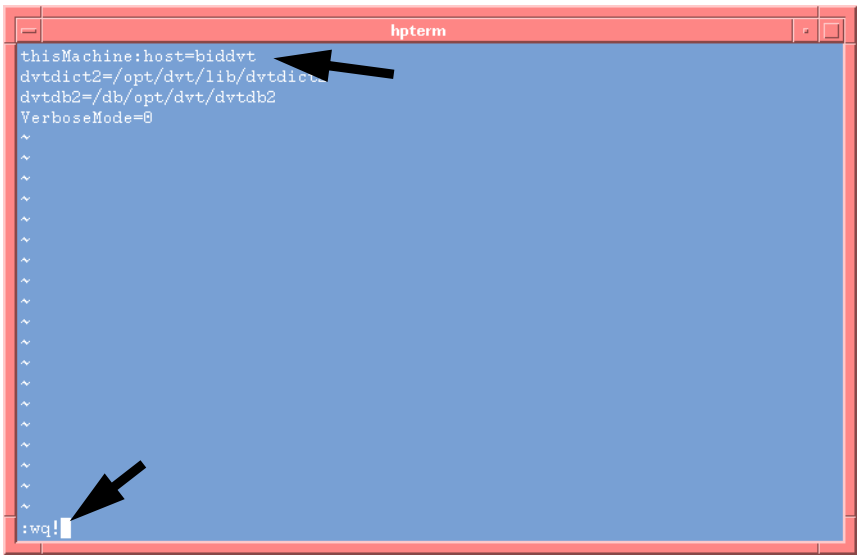
Figure 108 Remove ‘e4802a’



30 Type ‘**a**’, then the new hostname, in the example this is ‘**biddvt**’.

- Press the [Esc] key.
- Then type ‘**:wq!**’ to save and quit the edited file, and press [Enter] or [Return] key:

Figure 109 Re-store the ‘etc/opt/dvt/db/ptserver.cfg’ File

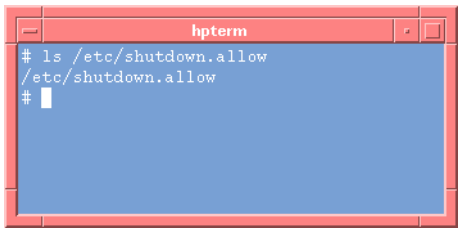


Edit the ‘shutdown.allow’ File

31 Type the following command line at the root prompt:
 # ls /etc/shutdown.allow
then press the [Enter] or [Return] key.

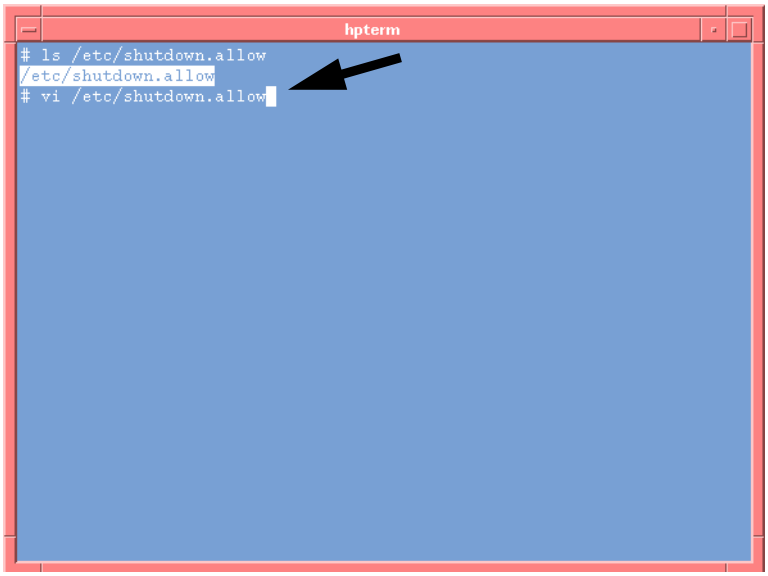
NOTE: If the ‘/etc/shutdown.allow’ file is present, please follow the next steps. If the file is not present go to “I. Reboot the System”, on page 111.

Figure 110 Check for the ‘shutdown.allow’ File



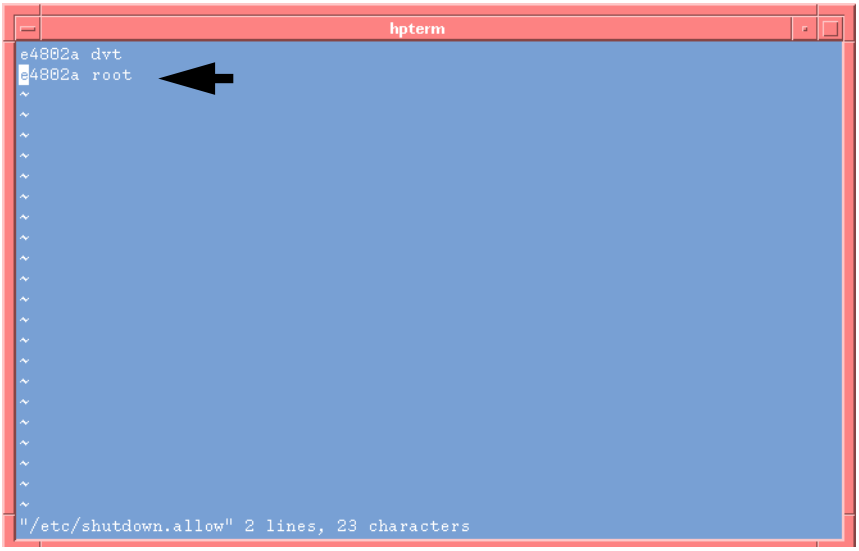
32 Add the lines ‘hostname’ dvt and ‘hostname’ root to this file. Edit the ‘**`/etc/shutdown.allow’ file by`** typing the following command line at the root prompt:
`# vi /etc/shutdown.allow`
then press the [Enter] or [Return] key.

Figure 111 Editing of the ‘/etc/shutdown.allow’ File



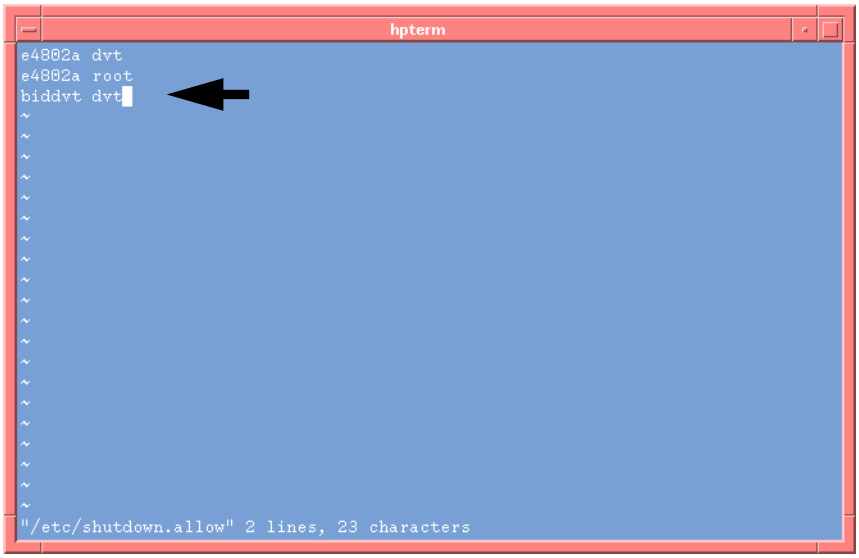
33 Move the cursor with the cursor keys to the last line in the file:

Figure 112 Move Cursor to last line



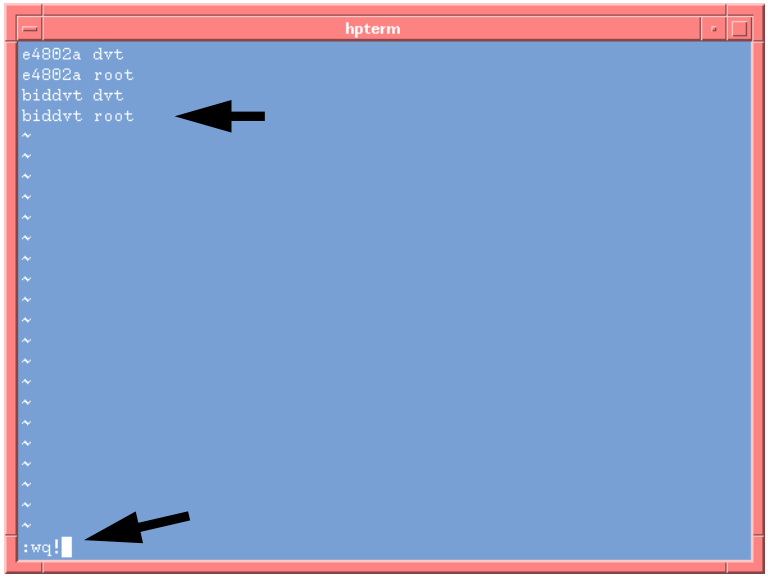
34 Enter a new line by typing '**o**'. Enter the new hostname and user name, in the example this is '**biddvt dvt**', then press [Enter] or [Return] key:

Figure 113 Enter First New Line



35 Enter the new hostname with root rights. In the example this is '**biddvt root**', then press [Esc] key. Save and quit the file by typing: '**:wq!**' and press [Enter] or [Return] key:

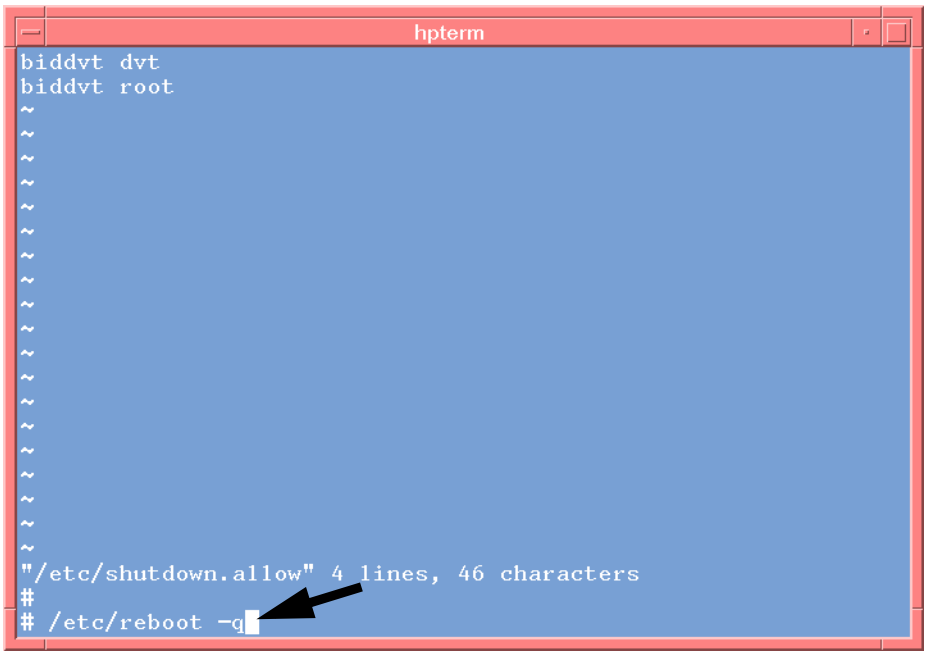
Figure 114 Enter Second New Line and Re-store File



I. Reboot the System

36 Halt the system by typing the following command at the root prompt:
`# /etc/reboot -q`
then press the [Enter] or [Return] key.

Figure 115 Reboot System by the command '/etc/reboot -q'



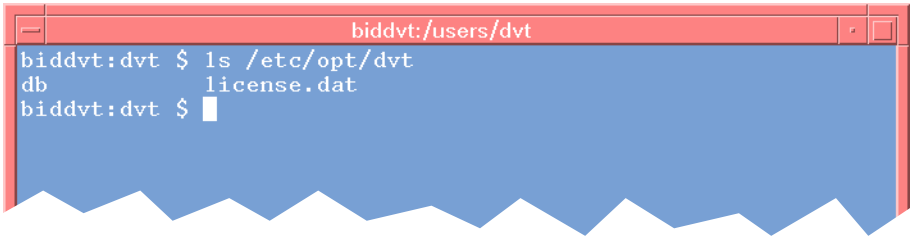
J. Edit the ‘License.dat’ File

37 When the VUE Login Screen is displayed, login as ‘dvt’.

38 Open a command input window (hpterm).

39 Check whether your system has a directory path ‘/etc/opt/dvt’. Type at the user prompt (prompt example biddvt:dvt $):
`biddvt:dvt $ ls /etc/opt/dvt`
then press the [Enter] or [Return] key.

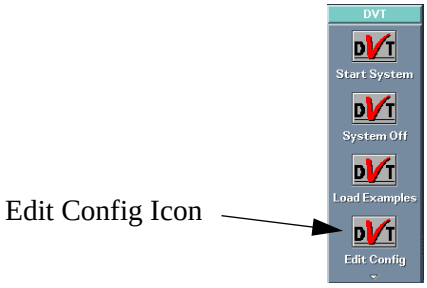
Figure 116



40 If the system gives a listing, then follow the next steps. If there is an error message displayed, then there is no license.dat file available, you can either start the DVT system, or go to “K. Halt System”, on page 115.

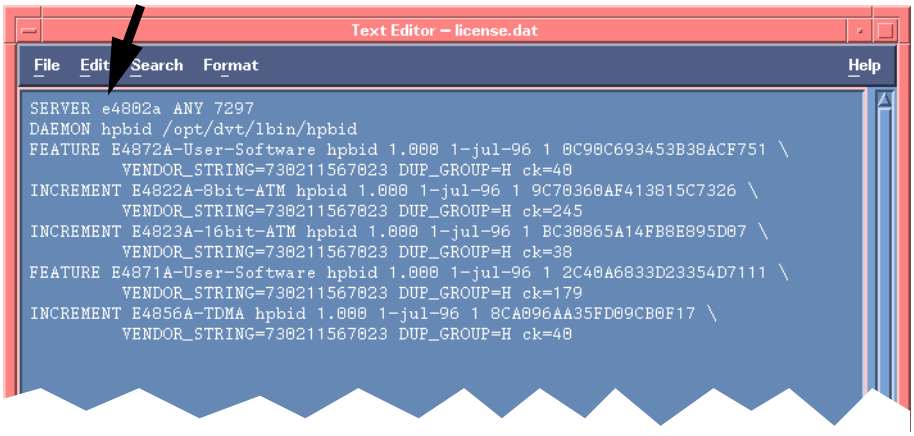
41 Click on ‘Edit Config’ button in the ‘DVT’ subpanel. Three edit windows are displayed. Select the window “Text Editor - license.dat” by clicking in the title panel.

Figure 117 Click on DVT Edit Config



42 Move the cursor to ‘e4802a’ in the first line:

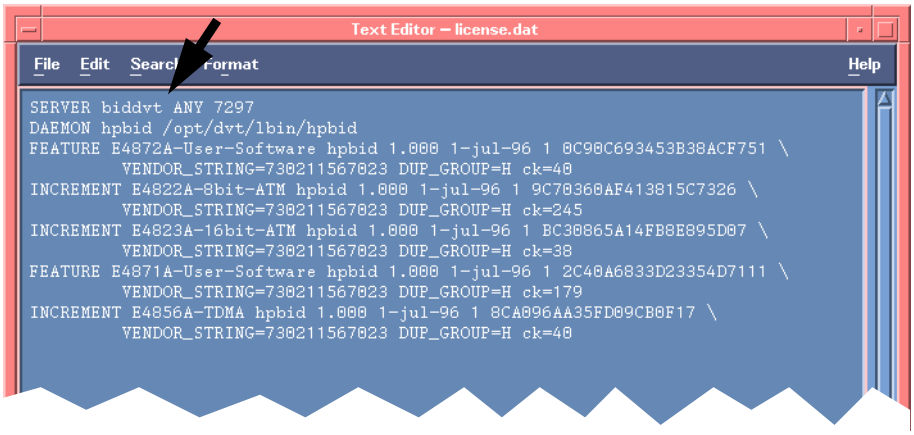
Figure 118 Original ‘license.dat’ File



43 Replace ‘e4802a’ by the hostname you selected for connecting the system to LAN, in this example ‘biddvt’:

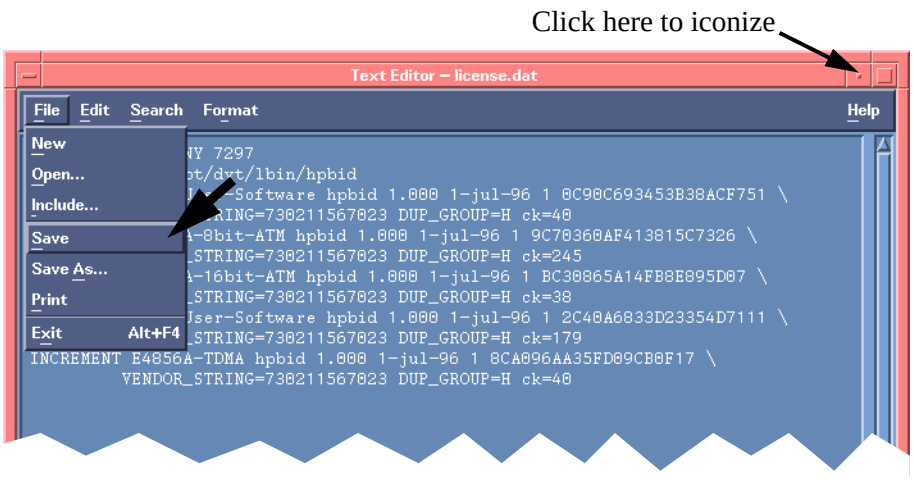
NOTE: To replace ‘e4802a’ either move the cursor to the ‘a’ and use Backspace to remove the name. Or highlight the name by pressing down the left mouse button dragging the cursor to the end of the name and release the mouse button, then write the new hostname.

Figure 119 Edited ‘license.dat’ File



44 Save the edited ‘license.dat’ file from the File>Save menu

Figure 120 Save the Edited ‘license.dat’ File



45 Iconize the ‘Text Editor - license.dat’ window and open the ‘hpterm’ window.

46 Start the license manager by typing at the user prompt:
`biddvt:dvt $ /opt/dvt/lbin/start_lmgrd`
then press the [Enter] or [Return] key.

47 Re-read the edited license file by typing at the user prompt:
`biddvt:dvt $ /opt/dvt/sbin/lmreread`
then press the [Enter] or [Return] key.

48 Click on the DVT icon to start the application. After about 1 minute the ‘Application Select’ window should be displayed.

K. Halt System

NOTE:

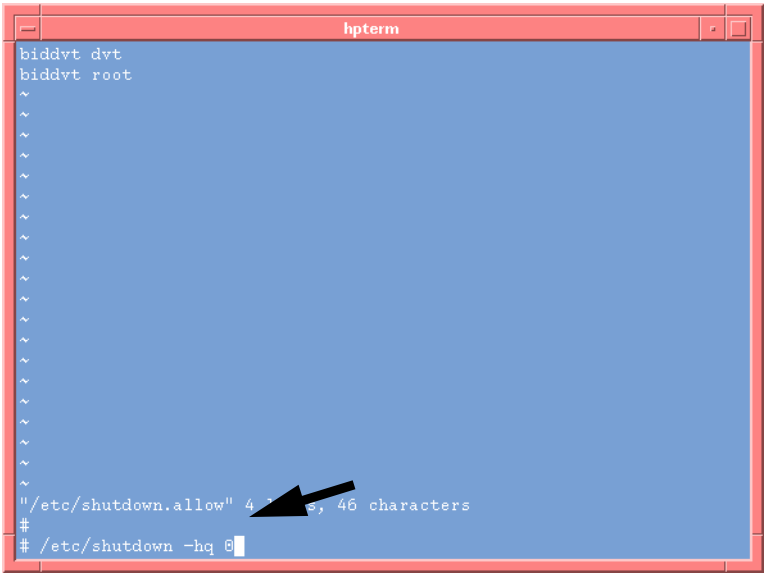
The following step halts the system so that it can be switched off. If you want to proceed with the application it is recommended to reboot the system only as this gives you a defined start, and is much faster then a system shutdown, see “I. Reboot the System”, on page 111.

If there is no root prompt (#) type ‘su’ at the current prompt, as default there is no password set for root.

For more information refer to ‘Installing and Administrating LAN/9000 Software’ manual.

49 Halt the system by typing the following command at the root prompt:
`# /etc/shutdown -hq 0`
(the ‘0’ is the number zero) then press the [Enter] or [Return] key.

Figure 121 Reboot System by the command ‘/etc/shutdown -hq 0’



Chapter 9

Adding a Printer

Adding a Printer to the System

There are two possibilities to add a printer to the system:

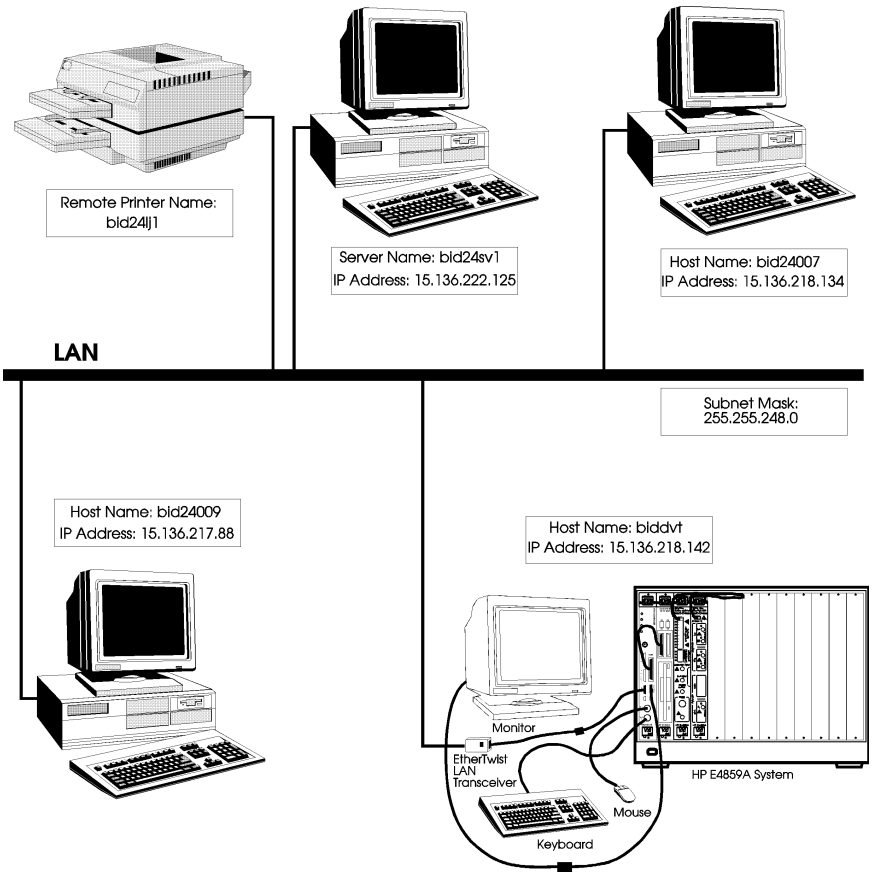
If the system is connected to a Local Area Network (LAN), and if there is also a printer available on this network, this printer can be configured (added) to the system as a remote printer.

If the system is not connected to a LAN, a serial (RS-232) or an HP-IB printer can be connected directly to the system, as a local printer.

Adding a Remote Printer

Precondition: Both, the HP E48x9x System and the printer must be connected to the LAN.

Figure 122 Example of a Local Area Network (LAN)



1 Find the following data for the printer:

a **Printer Name**: Create a printer name to specify the remote printer for the system. This name is only valid for the system. This is important when more than one printer will be set up on the system, e.g.: Printer Name: ljet.

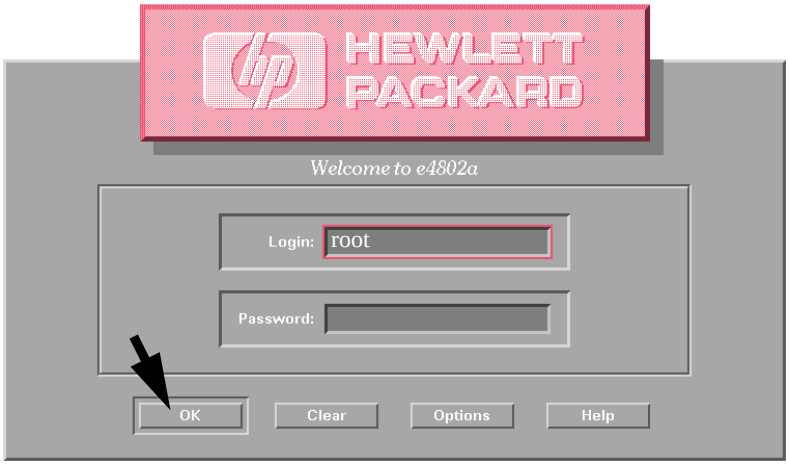
b **Remote System Name**: The name of the server to which the remote printer is connected to, e.g.: bid24sv1

c **Remote Printer Name**: The name of the remote printer in the LAN, this name is the same for all users in the network, e.g.: bid24lj1.

4 Power On the system, if not already.

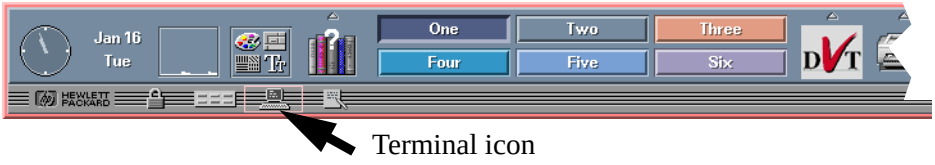
5 Login as ‘root’. If the default setting is not changed there is no password required. Click on the OK button:.

Figure 123 Login as ‘root at the VUE Login Screen



6 Click on the terminal icon in the VUE front panel to open a command input window (hpterm):

Figure 124 Terminal Icon Location in the VUE Frontpanel

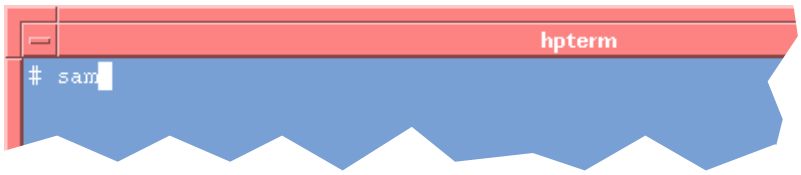


7 In the command input window (hpterm) type at the root prompt:

```
# sam
```

then press the [Return] or [Enter] key.:

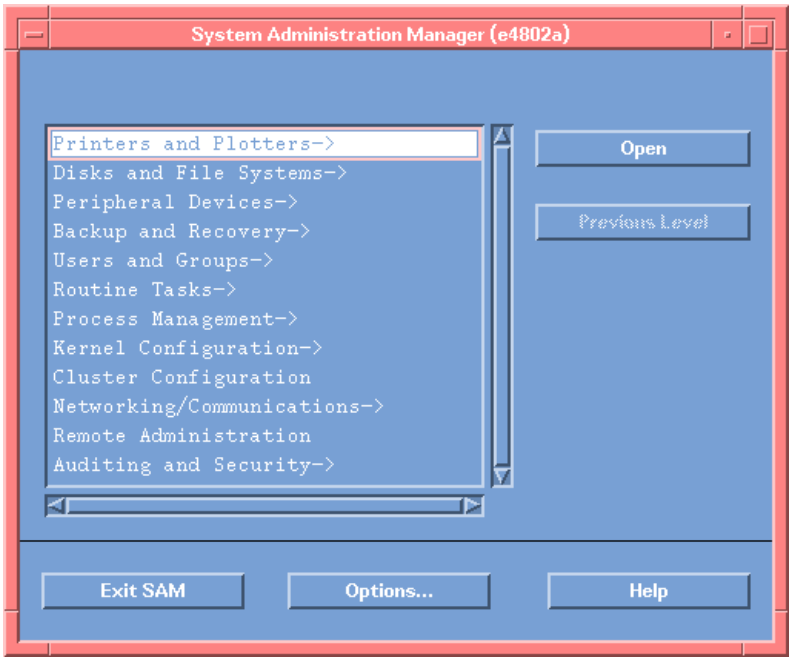
Figure 125 Command Input Window (hpterm)



8 Wait for the window ‘System Administration Manager (e4802a).

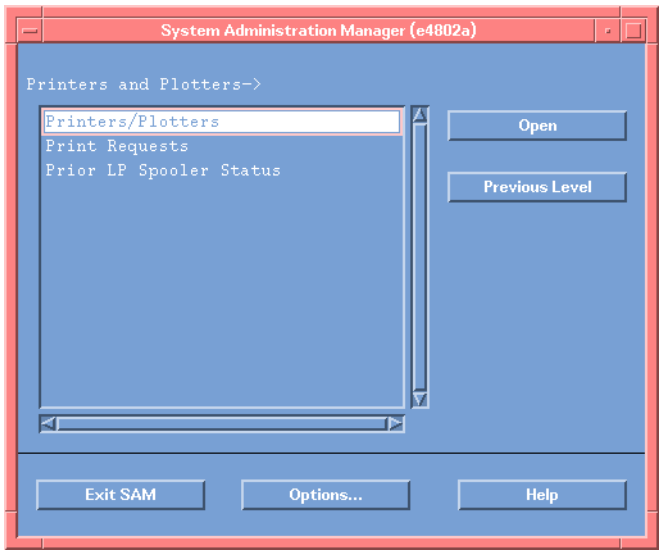
9 Double-click on ‘Printers and Plotters ->’.

Figure 126 System Administration Manager (SAM) Main Menu



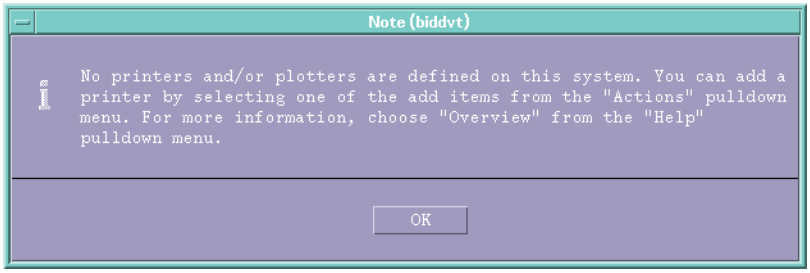
10 Double-click on ‘Printers/Plotters’.

Figure 127 Printers and Plotters -> Menu Window



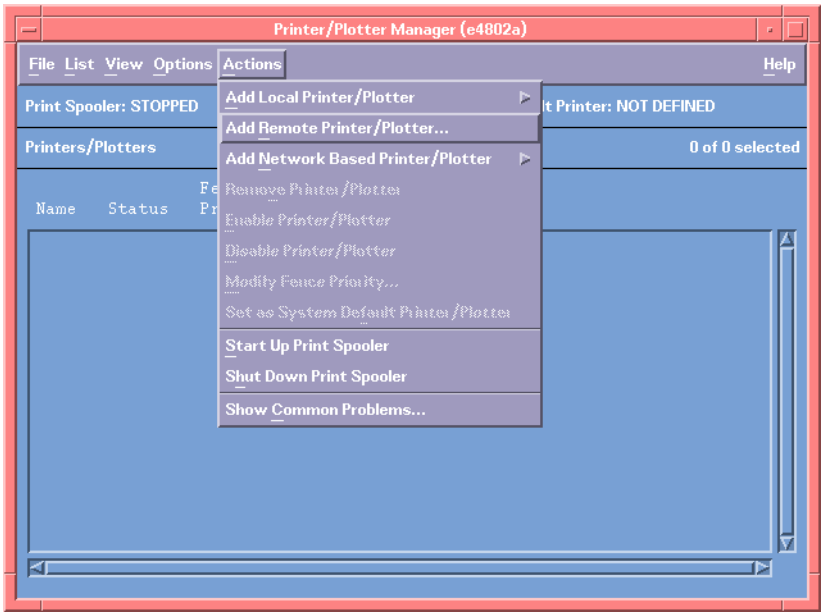
11 If there is no printer set up so far, the following dialog box pops up. Click on the OK button:

Figure 128 Dialog Box



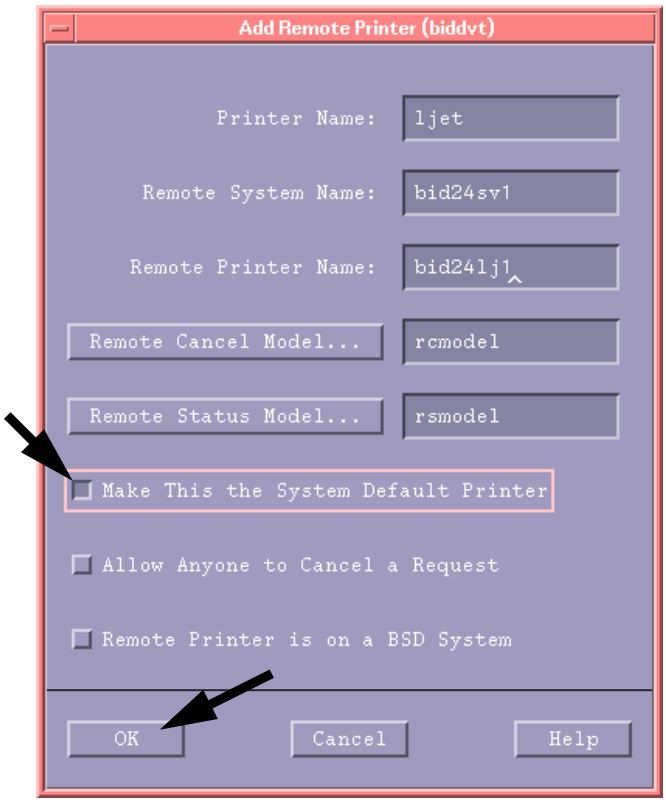
12 Click on Action>Add Remote Printer/Plotter..:

Figure 129 Printer/Plotter Window



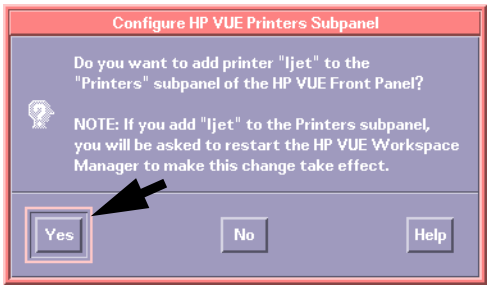
13 Type the appropriate information in the ‘Printer Name’, ‘Remote System Name’ and the ‘Remote Printer Name’ fields. If this is the first printer added to the system, it is recommended to ‘Make This the System Default Printer’, click the radio button, then click on the OK button:.

Figure 130 Example for Adding a Remote Printer



14 Click on the Yes button in the dialog box ‘Configure HP VUE Printers Subpanel’:

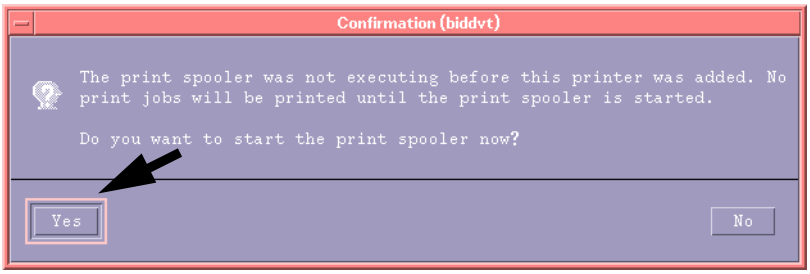
Figure 131 Dialog Box “Configure HP VUE Printers Subpanel”



15 Click on the OK button in the ‘Restart Workspace Manager’ dialog box.

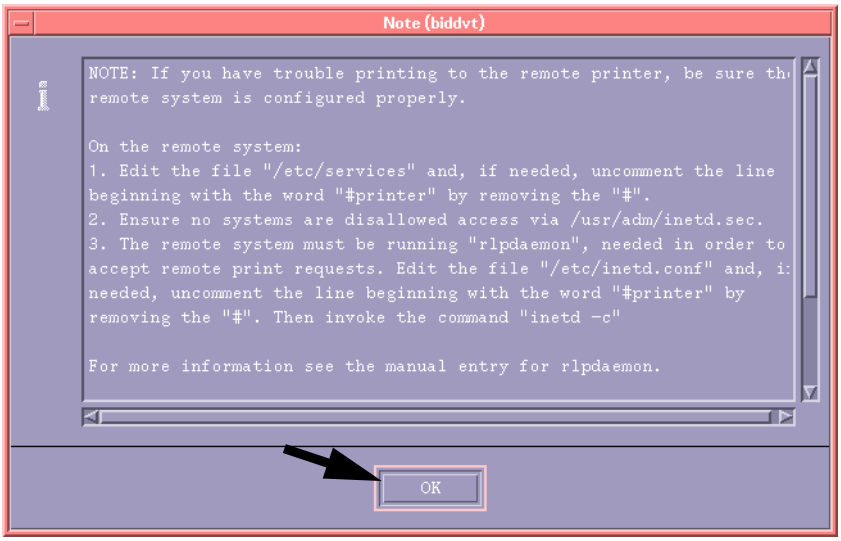
16 Click on the Yes button in the ‘Confirmation’ dialog box:

Figure 132 Dialog Box “Confirmation”



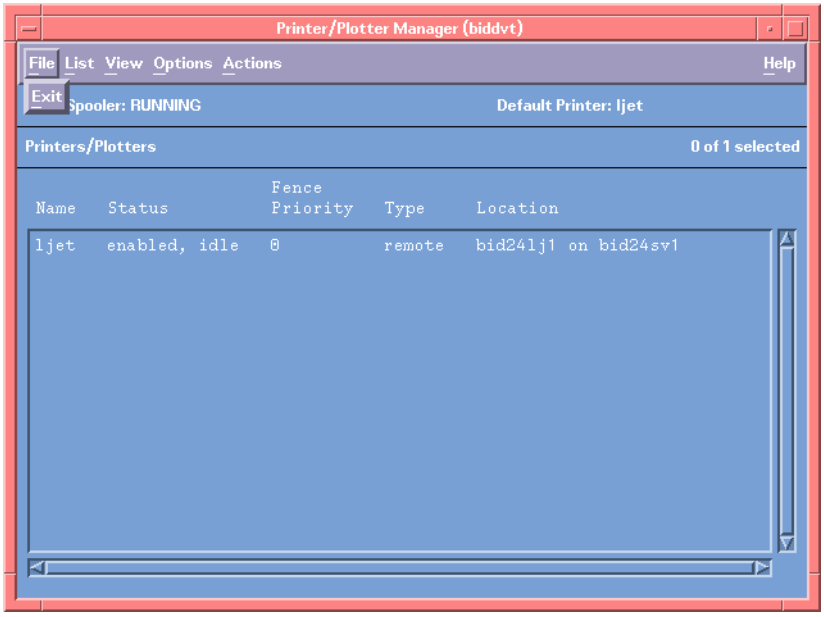
17 Click on OK button in the ‘Note’ dialog box:.

Figure 133 Dialog box “Note”



18 Click on File>Exit of the Printer/Plotter window:

Figure 134 Exit the Printer/Plotter Setup Menu



19 Click on the Exit SAM button in the SAM main menu. See Figure 127.

Adding a Local Printer

The V743 controller allows to connect a printer via the serial (RS-232) Interface or the HP-IB Interface, there is no parallel port available.

In systems where the software revision is not of the form A.01.xx.xx it is necessary to edit the SICL hardware configuration first, please refer to Editing SICL Configuration, see page 177.

To find out the current software revision the Help>On Version menu option can be used.

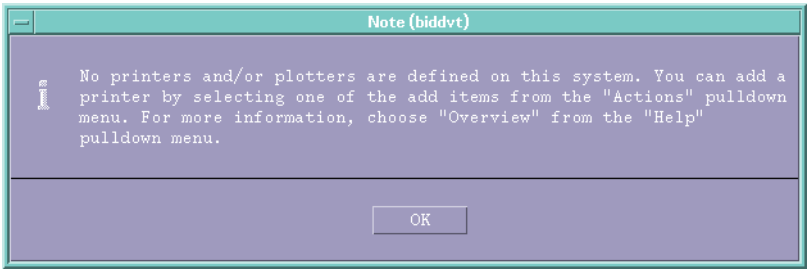
Adding an RS-232 Local Printer

1. Connect the serial-interface printer via a serial cable (HP 24542G) and the serial adapter cable, p/n A2636-61601, to the Serial A connector on the V743 controller.
2. Power on the system, if not already and switch on the printer.
3. Login as ‘root’. No password is required if the default setting has not been changed. See Figure 123.
4. In the command input window (hpterm) type at the root prompt, see Figure 125:

   ```
   # sam
   ```

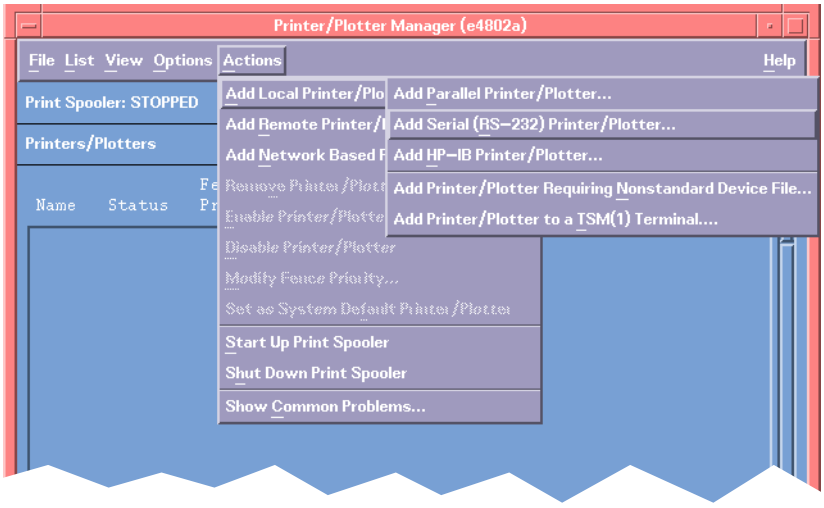
   then press [Return] or [Enter] key.
5. Double-click on ‘Printers and Plotters ->’. See Figure 126.
6. Double-click on ‘Printers/Plotters’. See Figure 127.
7. If there is no printer set up so far, the following dialog box pops up. Click on the OK button:

Figure 135 Dialog Box



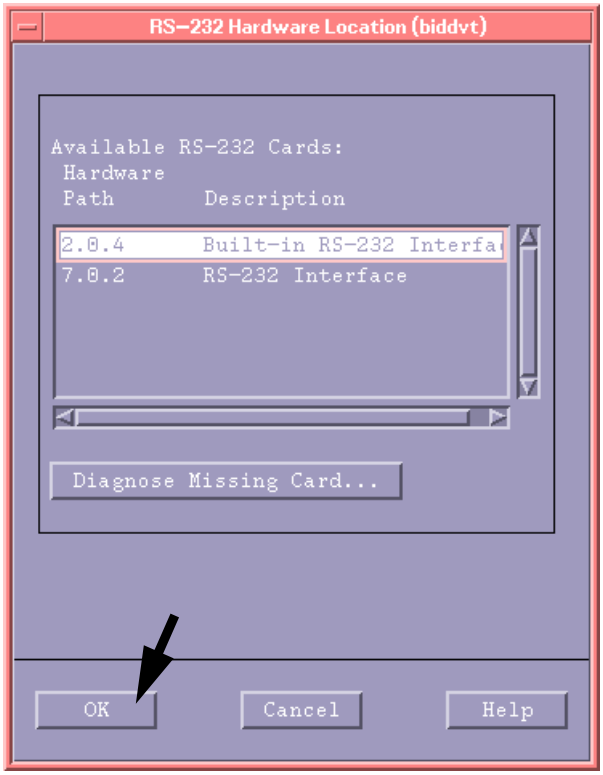
8 Click on Action>Add Local Printer/Plotter>Add Serial (RS-232) Printer/Plotter...

Figure 136 Add Serial (RS-232) Printer/Plotter Menu Option



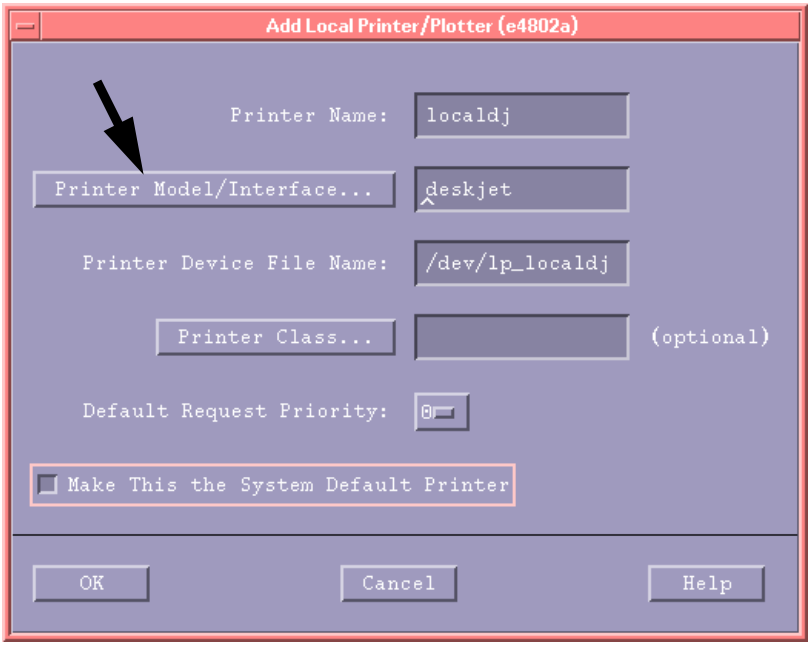
9 Select with the cursor keys the first RS-232 card listed and click on the OK button. See Figure 137.

Figure 137 Serial (RS-232) Interface Selection Window



10 Type in a printer name. This name is only valid for the system. This is important when more than one printer is set up on the system. See Figure 138.

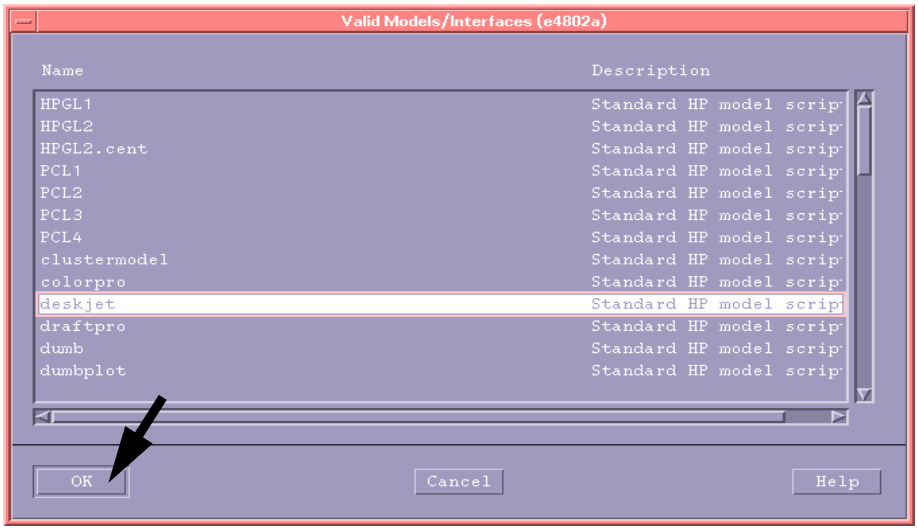
Figure 138 Example of Adding a Local Printer



11 Click on Printer Model/Interface button.

12 Select from the displayed list a device driver which meets the requirements for the printer to be connected. See Figure 139.

Figure 139 Printer Drivers Window



13 Click on the OK button.

14 Click on the radio button when you want to make the local printer as the default printer. This is recommended when it is the only printer connected to the system, see Figure 138.

15 Click again on the OK button in the ‘Add Local Printer/Plotter’ window , see Figure 138.

16 Click on Yes in the ‘Configure HP VUE Printer Subpanel’ dialog box.

17 Click on OK in the ‘Restart Workspace Manager’ dialog box.

18 Click on OK in the Note dialog box, which is displayed now.

19 Exit the printer setup menu by the File>Exit menu.

20 Click on Exit SAM button, in the main window of ‘sam’. See Figure 127.

Chapter 10

Licensing

User Software and Personality Licenses

License Management Tool

The license management tool used is FLEXlm from Globetrotter Software.

Licenses in Factory Configured Systems

In factory pre-configured systems all licenses are already installed and are ready to use.

Licenses in Upgraded Systems

Permanent Licenses have to be added when:

- User software is updated from a revision that does not have licensing.
- Additional hardware modules are added to the system.
- Additional personality licenses (ATM-8 or ATM-16) are added to the system.
- The system hardware and software is installed for the first time into a BSTS.

Run-time-License:

There is a 3 months grace period during which you can use the system with demo-licenses. Please fax back the "**License Activation Key Request Fax**" to HP to get your license activation key before the 3 months period expires. This will avoid any disruption due to missing licenses. The system will remind you about any expiring licenses whenever you start the DVT software.

General Procedures

A. License Activation Key Request Fax, see page 133.

B. Find out 'Host ID' and 'hostname', see page 135.

C. Complete the License Activation Key Request Fax, see page 136.

D. Receive Permanent License Activation Keys:, see page 138.

E. Backup Current 'license.dat' File:, see page 140.

F. Edit the 'license.dat' File:, see page 141.

G. Check License File Integrity, see page 146.

H. Further Information about the License Manager, see page 149.

A. License Activation Key Request Fax

With a new software revision you receive the following License Activation Key Request Fax. Return the filled out fax only when permanent licenses have to be added for the first time.

Figure 140 Example of a Software Update License Activation Key Request Fax

Hewlett-Packard GmbH
BID PL24, Prod. W2 EG
Herrenberger Str. 130
71034 Boeblingen
GERMANY

HEWLETT PACKARD

License Activation Key

E4829A,B Option UAH, UAF // E4871A Option UAH, UAF / 011, 012

Request FAX

To:	BID PL24, Product Support	Fax Number:
Company:	HEWLETT-PACKARD GmbH	(+49) 7031 14 6532

To receive your license activation key, please complete this request fax LEGIBLY in its entirety and fax it to the above number.

We will fax you the license activation key for activating your system within two working days of receiving this request.

Contact Information **Company Address**

First Name _____ Company _____

Last Name _____ Department _____

Title _____ Street _____

Phone No. _____ Zip, City _____

FAX No. _____ Country _____

email _____

Installation Information

Host ID No.: _____ ***Hostname:*** _____

type at the UNIX prompt $ ***/opt/dvt/sbin/lmhostid*** type at the UNIX prompt $ ***hostname***

Module		and	**Software Information**	
Module	***Serial Number***		***Software***	***Serial Number***
E4821A	_____		E4871A	_____
E4821A	_____		E4822A	_____
E4821A	_____		E4822A	_____
E4821A	_____		E4822A	_____
E4821A	_____		E4822A	_____
E ____ A	_____		E48 __ A	_____
E ____ A	_____		E4823A	_____
E ____ A	_____		E4823A	_____
E ____ A	_____		E4823A	_____
E ____ A	_____		E4823A	_____

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When you have ordered additional modules and personalities you receive a License Activation Key Request Fax which looks like the following. Return the filled out fax whenever the system is upgraded.

Figure 141 Example of an Incremental License Activation Key Request Fax

Hewlett-Packard GmbH
BID PL24, Prod. W2 EG
Herrenberger Str. 130
71034 Boeblingen
GERMANY

HEWLETT PACKARD

License Activation Key

Request FAX

To:	BID PL24, Product Support	Fax Number
Company:	HEWLETT-PACKARD GmbH	(+49) 7031 14 6532

To receive your license activation key, please complete this request fax LEGIBLY in its entirety and fax it to the above number.

We will fax you the license activation key for activating your system within two working days of receiving this request.

Contact Information | **Company Address**

First Name _____ Company _____

Last Name _____ Department _____

Title _____ Street _____

Phone No. _____ Zip, City _____

FAX No. _____ Country _____

email _____

Installation Information

Host ID No.: _____ ***Hostname:*** _____

type at the UNIX prompt $ ***/opt/dvt/sbin/lmhostid*** type at the UNIX promt $ ***hostname***

```
E4822A  SN: 3534G00242
E4822A  SN: 3534G00243
E4823A  SN: 3618G00156
E4823A  SN: 3618G00157
E4823A  SN: 3618G00158
```

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E4800-90001 **Digital Verification Tools** Product Support PL24

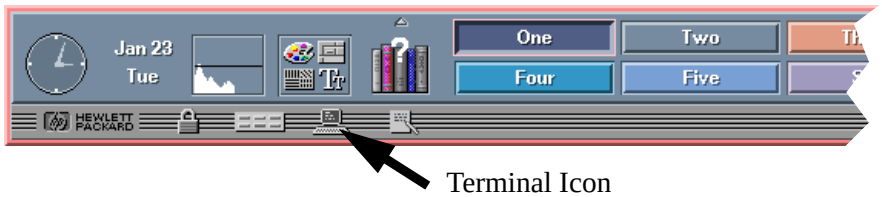
NOTE: To get your license activation keys, please fill out the enclosed Request Fax, and fax back to Hewlett Packard immediately. If you didn't receive a License Activation Key Request Fax, use the appropriate blank sheet appended to the end of this section.

B. Find out 'Host ID' and 'hostname'

You have to fill in the 'Host ID' number and the 'hostname':

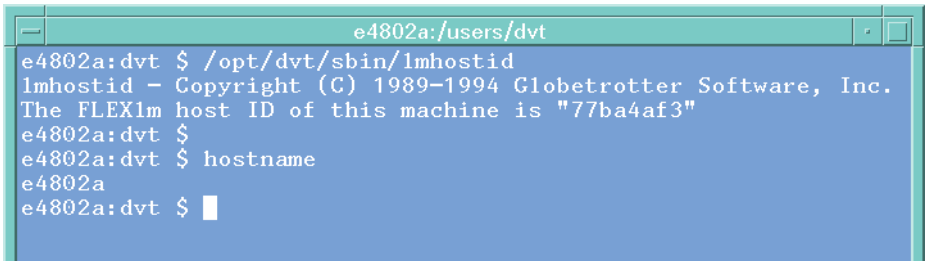
1. If not already done, power on the system and log in as 'dvt'.
2. Open a command input window (hpterm) by clicking on the Terminal Icon in the VUE front panel:

Figure 142 Terminal Icon in the VUE Front Panel



3. To find out the 'Host ID', type the following command at the user prompt (prompt example: e4802a:dvt $):
   `e4802a:dvt $ /opt/dvt/sbin/lmhostid`
   Then press [Enter] or [Return] key.
4. To find out the 'hostname', type the following command at the user prompt:
   `e4802a:dvt $ hostname`
   Then press [Enter] or [Return] key.

Figure 143 Example 'Host ID' and 'hostname'

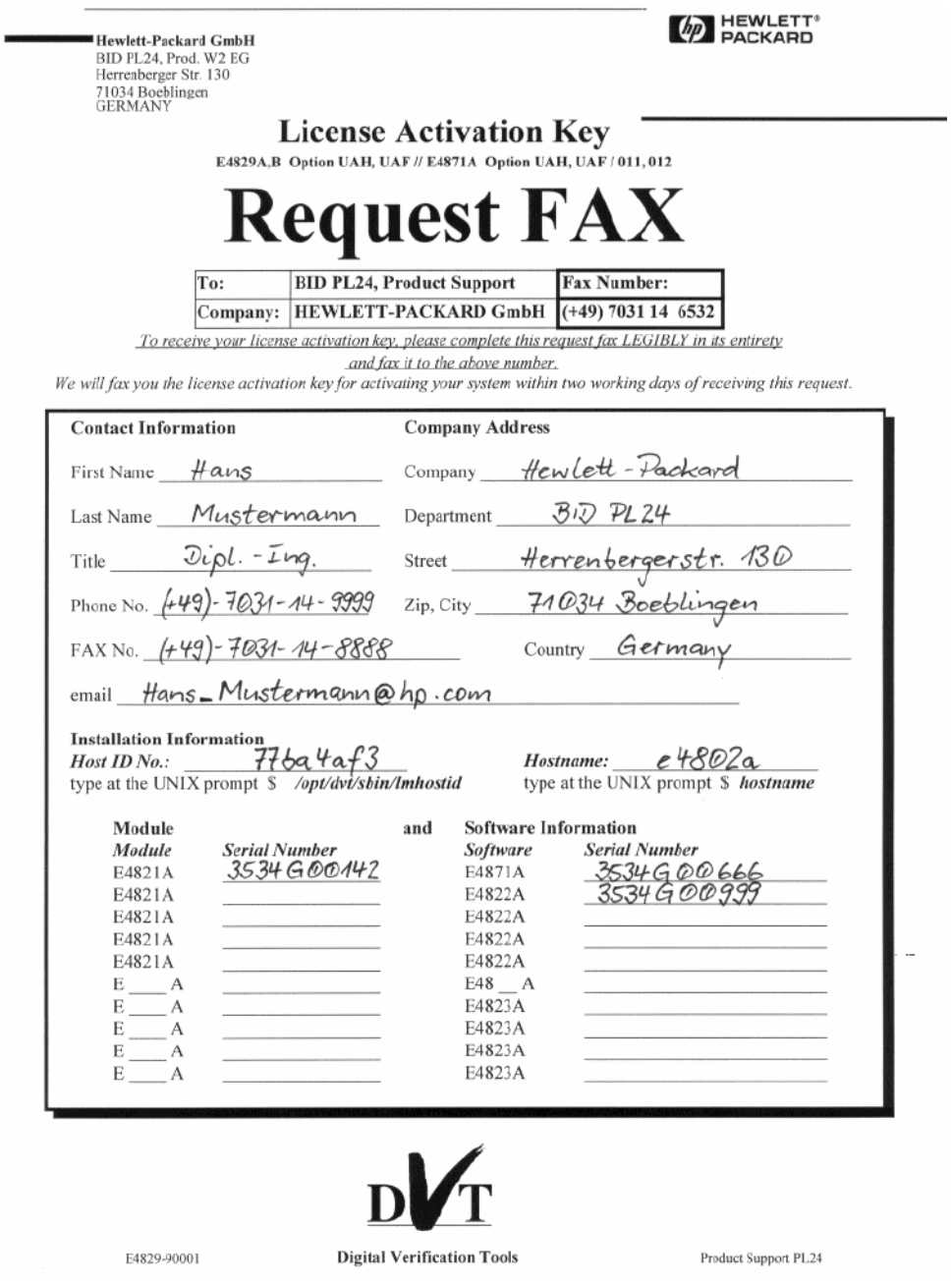


NOTE: Please fill in the 'Host ID', 'hostname', your address, and a fax number of a fax machine which is close to you. All this information is important, so that we can immediately create the required license activation keys and return it to you within 2 working days. See the following completed example.

C. Complete the License Activation Key Request Fax

5 You can close the 'hpterm' window by double clicking on the upper left corner where the '-' is:

Figure 144 Example of a completed Software Update License Activation Key Request Fax



Hewlett-Packard GmbH
BID PL24, Prod. W2 EG
Herrenberger Str. 130
71034 Boeblingen
GERMANY

HEWLETT PACKARD

License Activation Key

E4829A,B Option UAH, UAF // E4871A Option UAH, UAF / 011, 012

Request FAX

To:	BID PL24, Product Support	Fax Number:
Company:	HEWLETT-PACKARD GmbH	(+49) 7031 14 6532

To receive your license activation key, please complete this request fax LEGIBLY in its entirety and fax it to the above number.

We will fax you the license activation key for activating your system within two working days of receiving this request.

Contact Information

First Name: Hans
Last Name: Mustermann
Title: Dipl. - Ing.
Phone No.: (+49) - 7031 - 14 - 9999
FAX No.: (+49) - 7031 - 14 - 8888
email: Hans_Mustermann@hp.com

Company Address

Company: Hewlett - Packard
Department: BID PL24
Street: Herrenbergerstr. 130
Zip, City: 71034 Boeblingen
Country: Germany

Installation Information

Host ID No.: 776a4af3
type at the UNIX prompt $ */opt/dvt/sbin/lmhostid*

Hostname: e4802a
type at the UNIX prompt $ *hostname*

Module and **Software Information**

Module	*Serial Number*	*Software*	*Serial Number*
E4821A	3534G00142	E4871A	3534G00666
E4821A		E4822A	3534G00999
E4821A		E4822A	
E4821A		E4822A	
E4821A		E4822A	
E ___ A		E48 __ A	
E ___ A		E4823A	
E ___ A		E4823A	
E ___ A		E4823A	
E ___ A		E4823A	

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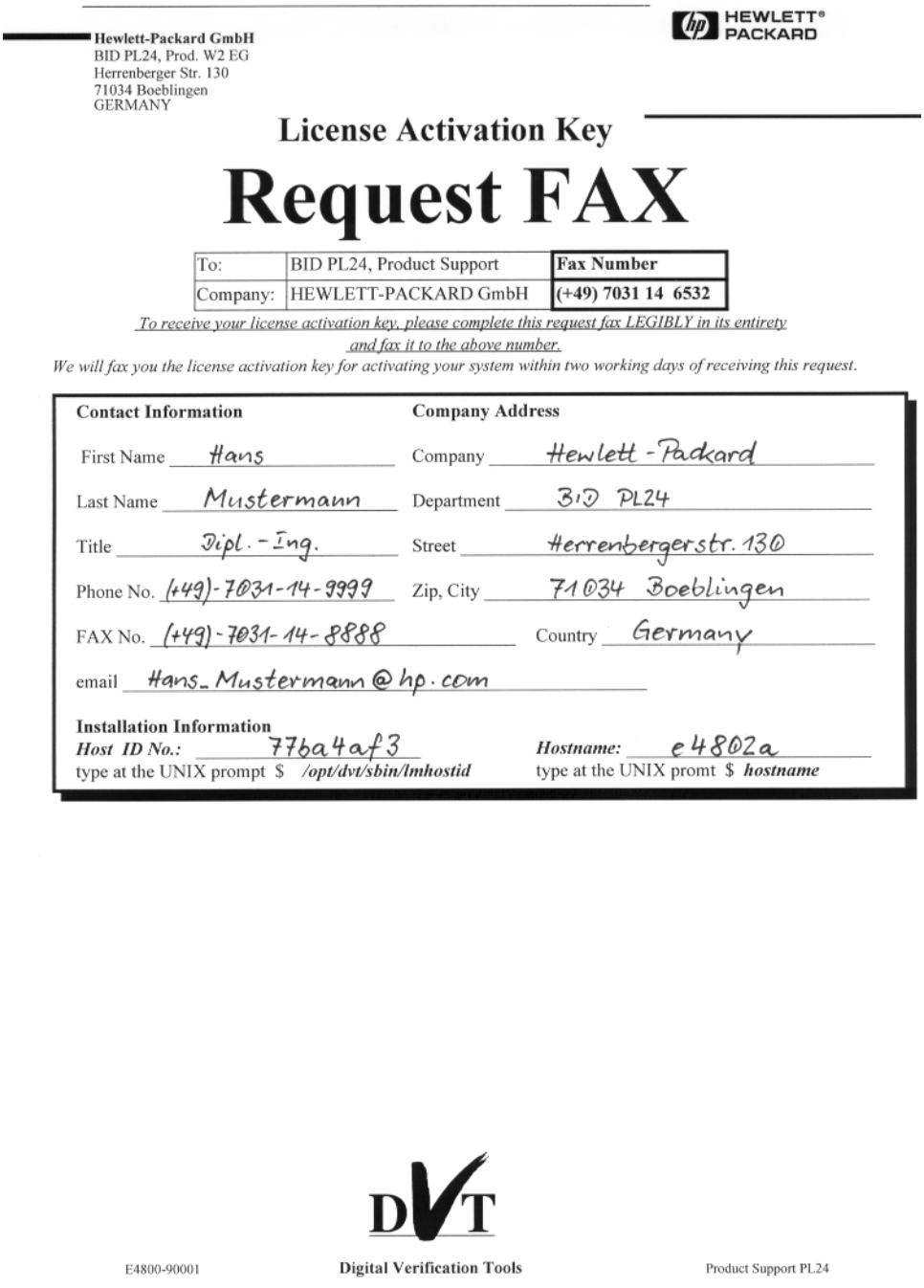
Figure 145 Example of a completed Incremental License Activation Key Request Fax



Hewlett-Packard GmbH
BID PL24, Prod. W2 EG
Herrenberger Str. 130
71034 Boeblingen
GERMANY

HEWLETT PACKARD

License Activation Key

Request FAX

To:	BID PL24, Product Support	**Fax Number**
Company:	HEWLETT-PACKARD GmbH	**(+49) 7031 14 6532**

To receive your license activation key, please complete this request fax LEGIBLY in its entirety and fax it to the above number.

We will fax you the license activation key for activating your system within two working days of receiving this request.

Contact Information

First Name: Hans
Last Name: Mustermann
Title: Dipl.-Ing.
Phone No.: (+49)-7031-14-9999
FAX No.: (+49)-7031-14-8888
email: Hans_Mustermann@hp.com

Company Address

Company: Hewlett-Packard
Department: BID PL24
Street: Herrenbergerstr. 130
Zip, City: 71034 Boeblingen
Country: Germany

Installation Information

Host ID No.: 77ba4af3
type at the UNIX prompt $ ***/opt/dvt/sbin/lmhostid***

Hostname: e4802a
type at the UNIX promt $ ***hostname***

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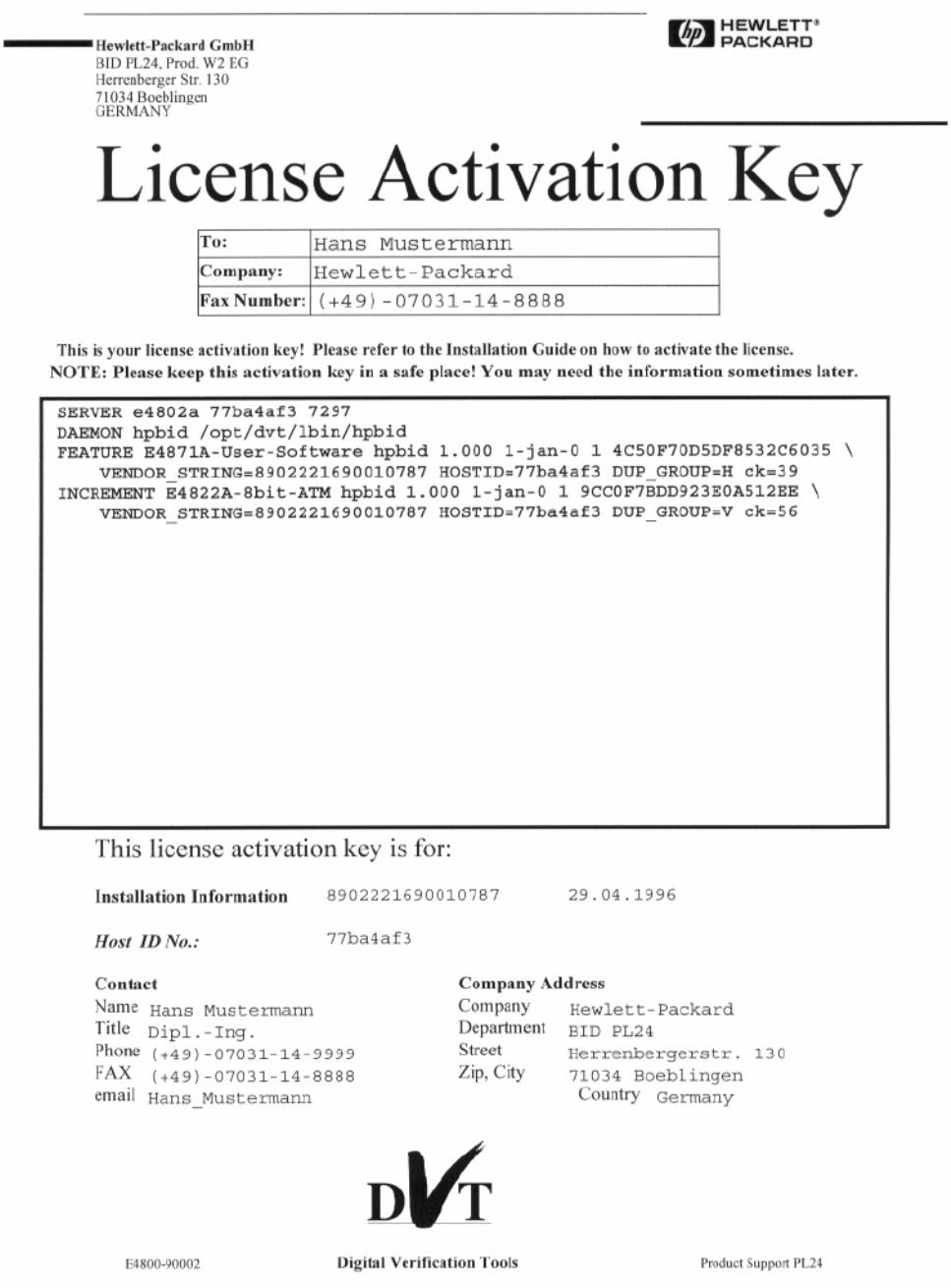
E4800-90001 **Digital Verification Tools** Product Support PL24

D. Receive Permanent License Activation Keys:

After we have received your request fax we will reply within two working days with the permanent license activation keys:

Figure 146 Example of Permanent License Activation Keys when Software is Updated



Hewlett-Packard GmbH
BID PL24, Prod. W2 EG
Herrenberger Str. 130
71034 Boeblingen
GERMANY

HEWLETT PACKARD

License Activation Key

To:	Hans Mustermann
Company:	Hewlett-Packard
Fax Number:	(+49)-07031-14-8888

This is your license activation key! Please refer to the Installation Guide on how to activate the license.
NOTE: Please keep this activation key in a safe place! You may need the information sometimes later.

```
SERVER e4802a 77ba4af3 7297
DAEMON hpbid /opt/dvt/lbin/hpbid
FEATURE E4871A-User-Software hpbid 1.000 1-jan-0 1 4C50F70D5DF8532C6035 \
    VENDOR_STRING=8902221690010787 HOSTID=77ba4af3 DUP_GROUP=H ck=39
INCREMENT E4822A-8bit-ATM hpbid 1.000 1-jan-0 1 9CC0F7BDD923E0A512EE \
    VENDOR_STRING=8902221690010787 HOSTID=77ba4af3 DUP_GROUP=V ck=56
```

This license activation key is for:

Installation Information 8902221690010787 29.04.1996

Host ID No.: 77ba4af3

Contact
Name Hans Mustermann
Title Dipl.-Ing.
Phone (+49)-07031-14-9999
FAX (+49)-07031-14-8888
email Hans_Mustermann

Company Address
Company Hewlett-Packard
Department BID PL24
Street Herrenbergerstr. 130
Zip, City 71034 Boeblingen
Country Germany

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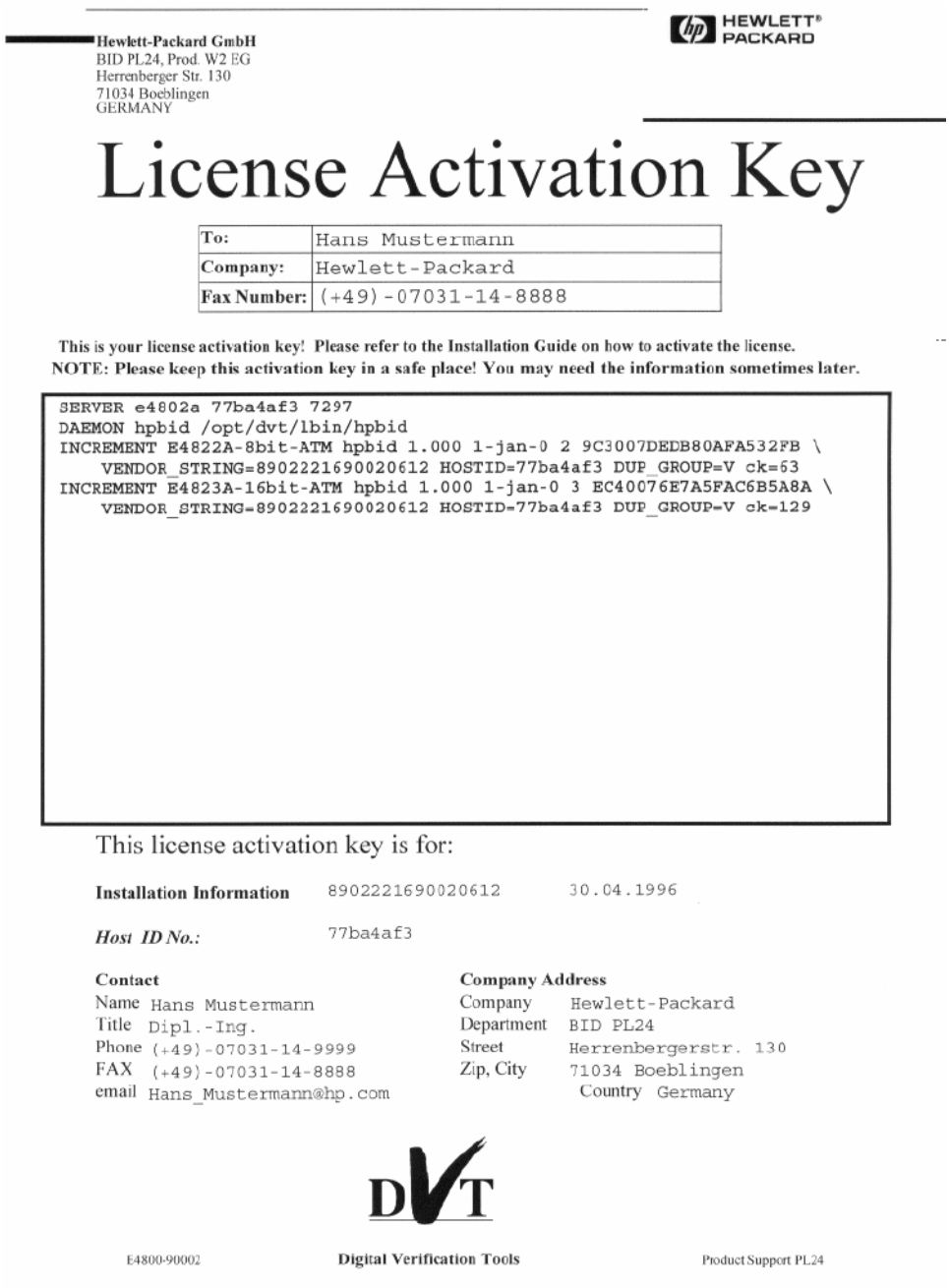
Figure 147 Example of Incremental Permanent License Activation Keys



Hewlett-Packard GmbH
BID PL24, Prod. W2 EG
Herrenberger Str. 130
71034 Boeblingen
GERMANY

HEWLETT PACKARD

License Activation Key

To:	Hans Mustermann
Company:	Hewlett-Packard
Fax Number:	(+49)-07031-14-8888

This is your license activation key! Please refer to the Installation Guide on how to activate the license.
NOTE: Please keep this activation key in a safe place! You may need the information sometimes later.

```
SERVER e4802a 77ba4af3 7297
DAEMON hpbid /opt/dvt/lbin/hpbid
INCREMENT E4822A-8bit-ATM hpbid 1.000 1-jan-0 2 9C3007DEDB80AFA532FB \
    VENDOR_STRING=8902221690020612 HOSTID=77ba4af3 DUP_GROUP=V ck=53
INCREMENT E4823A-16bit-ATM hpbid 1.000 1-jan-0 3 EC40076E7A5FAC6B5A8A \
    VENDOR_STRING=8902221690020612 HOSTID=77ba4af3 DUP_GROUP=V ck=129
```

This license activation key is for:

Installation Information 8902221690020612 30.04.1996

Host ID No.: 77ba4af3

Contact
Name Hans Mustermann
Title Dipl.-Ing.
Phone (+49)-07031-14-9999
FAX (+49)-07031-14-8888
email Hans_Mustermann@hp.com

Company Address
Company Hewlett-Packard
Department BID PL24
Street Herrenbergerstr. 130
Zip, City 71034 Boeblingen
Country Germany

DVT

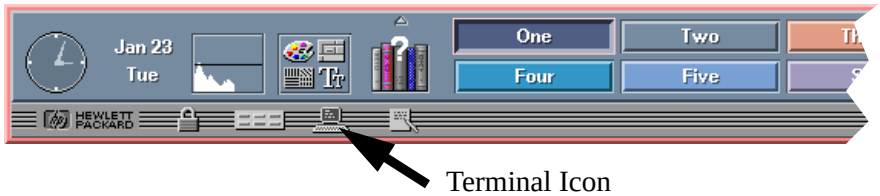
E4800-90002 **Digital Verification Tools** Product Support PL24

When you have received the permanent license activation keys you have to edit your current license file ‘license.dat’:

1 If not already done, power on the system and log in as ‘dvt’.

2 Open a command input window (hpterm) by clicking on the Terminal Icon in the VUE front panel:

Figure 148 Terminal Icon in the VUE Front Panel



E. Backup Current ‘license.dat’ File:

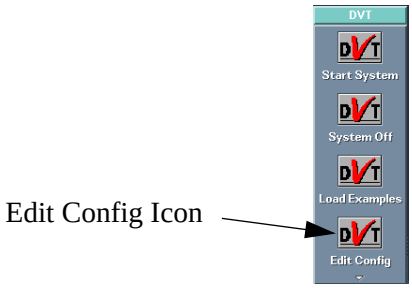
3 Copy the current license file ‘/etc/opt/dvt/license.dat’ into the directory ‘/tmp’. Use for example the filename ‘license_dat.old’ file.
Type at the user prompt (prompt example: e4802a:dvt $):
`e4802a:dvt $ cp /etc/opt/dvt/license.dat /tmp/license_dat.old`
Then press [Enter] or [Return] key.

Figure 149 Saving Current License File

F. Edit the ‘license.dat’ File:

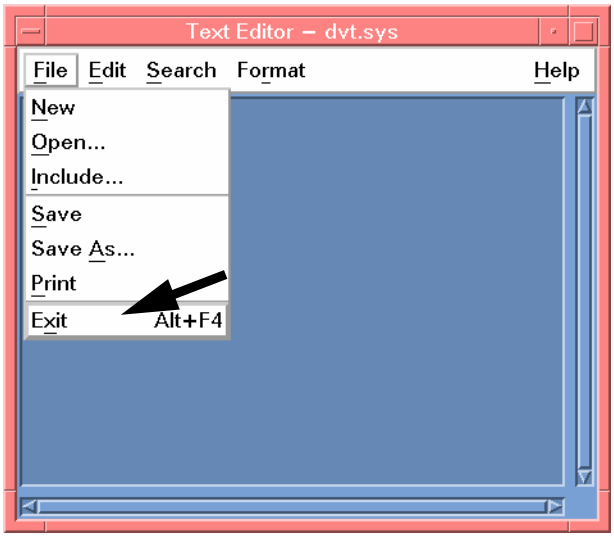
4 Click on the Edit Config button in the DVT subpanel.

Figure 150 Edit Config Icon in the DVT Subpanel



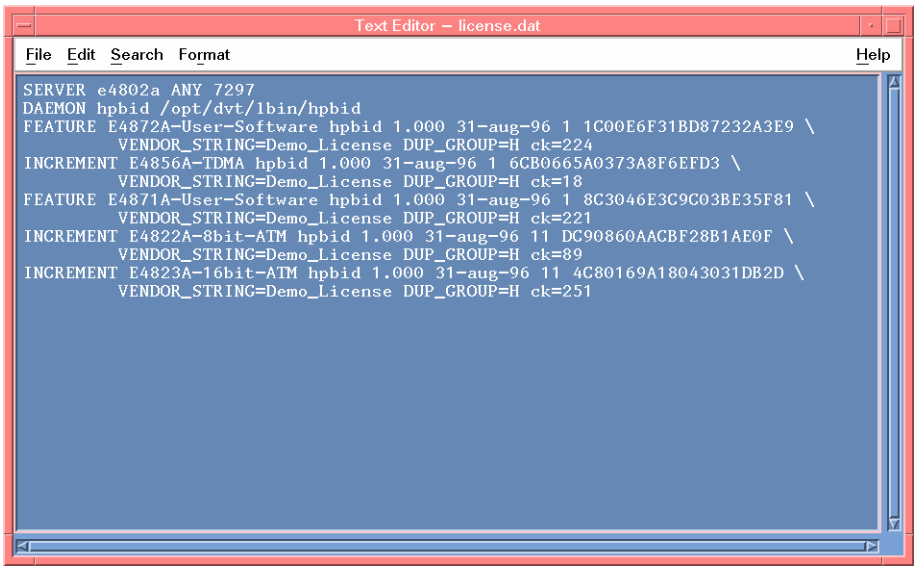
5 Close all edit windows except the “Text Editor - license.dat” window. To close the windows which are not required, first select the window by clicking on it, then close it by the File>Exit menu.

Figure 151 Closing Edit Windows



6 Finally you should see the edit window of the current license file:

Figure 152 Example of the Current License File



7 Edit the SERVER and DAEMON lines (first two lines) of the license file, so that they are the same as that shown in the License Activation Key fax.

Figure 153 Example of the Permanent Licenses

```
SERVER e4802a 77ba4af3 7297
DAEMON hpbid /opt/dvt/lbin/hpbid
FEATURE E4871A-User-Software hpbid 1.000 1-jan-0 1 4C50F70D5DF8532C6035 \
    VENDOR_STRING=8902221690010787 HOSTID=77ba4af3 DUP_GROUP=H ck=39
INCREMENT E4822A-8bit-ATM hpbid 1.000 1-jan-0 1 9CC0F7BDD923E0A512EE \
    VENDOR_STRING=8902221690010787 HOSTID=77ba4af3 DUP_GROUP=V ck=56
```

.

Figure 154 Example Before Editing

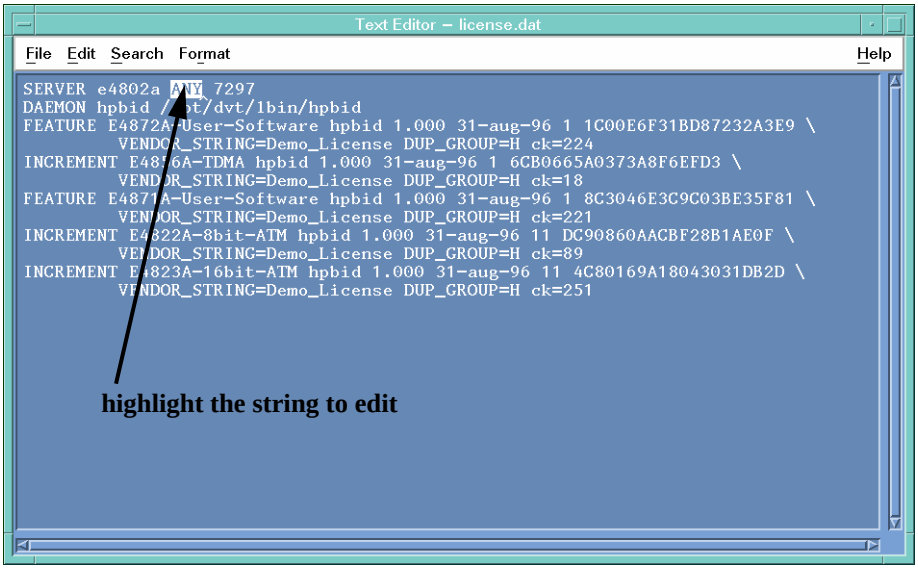
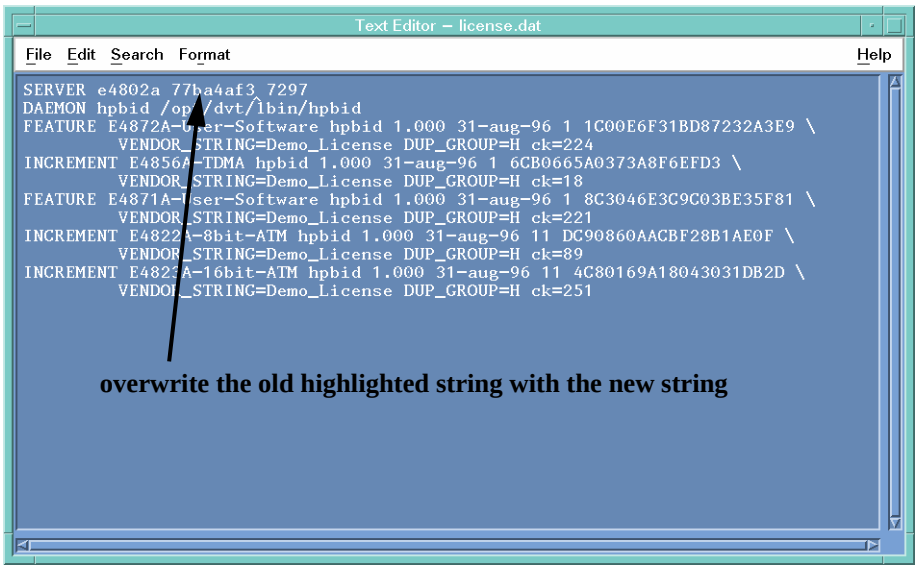


Figure 155 Example After Editing



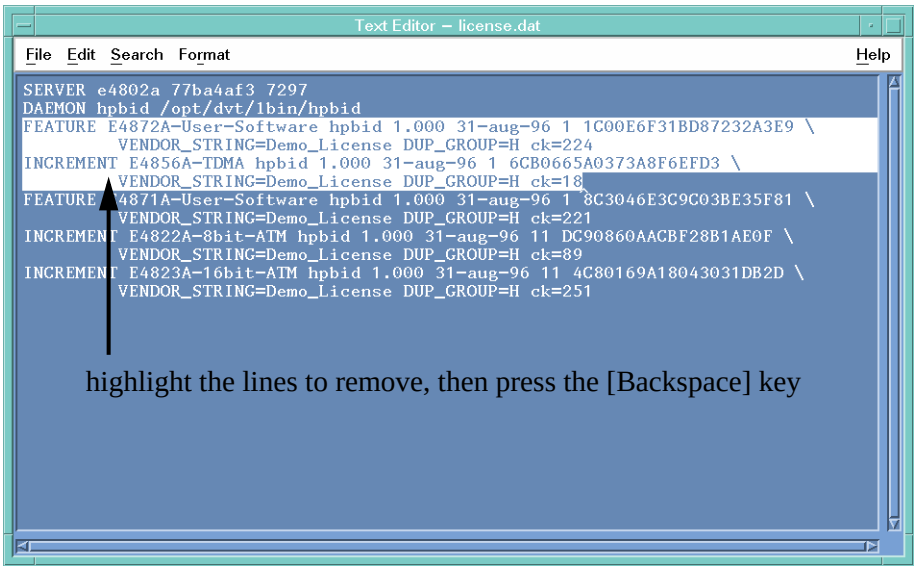
NOTE:

The FEATURE and INCREMENT strings are displayed as two lines. The first line ends with a '\' then a carriage return without a space in between.

Do not use the [Delete Char] key, as this causes implementation of special characters which have to be removed by [Backspace]. There is a risk that not all special characters are removed, then the editing of the license file fails

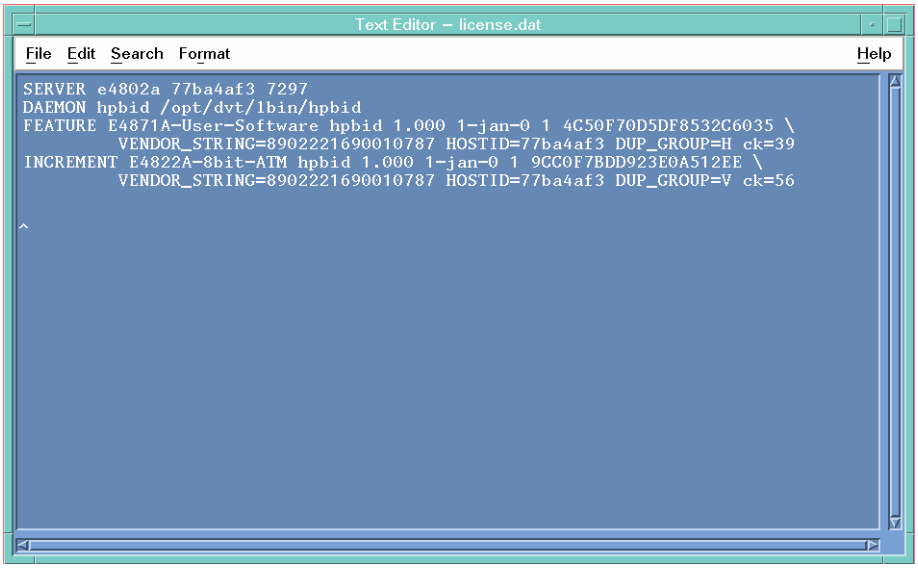
8 Delete all FEATURE and INCREMENT lines in the file that contain "VENDOR_STRING=Demo_License" and are not listed in the fax sheet with a new "VENDOR_STRING=<new number>" info. Highlight the lines by moving the cursor to the beginning of the string to remove, then press the left mouse button and drag the cursor to the end of the string and release the mouse button. Then press the [Backspace] key.

Figure 156 Example of Deleting Lines



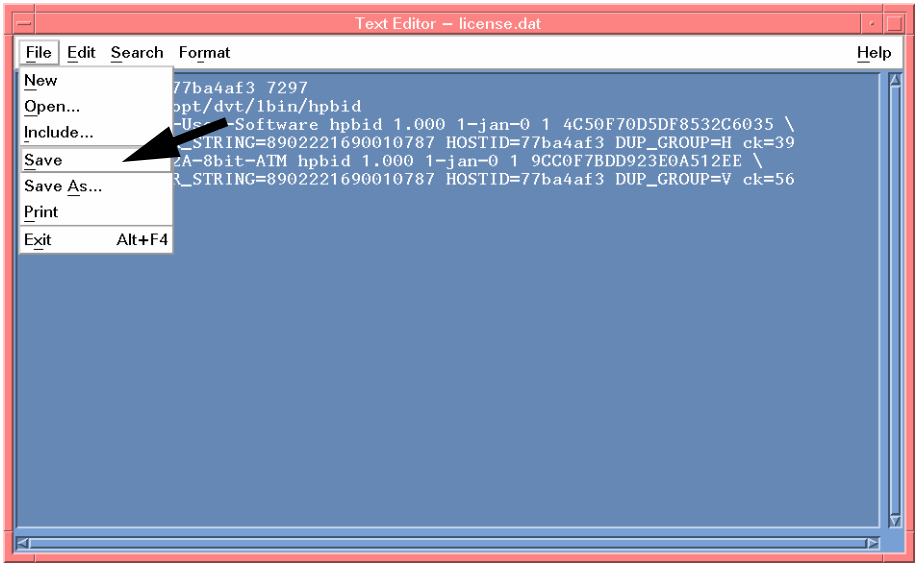
9 Edit the remaining FEATURE and INCREMENT lines as shown in the returned fax sheet and add INCREMENT lines which have to be added due to hardware and personality upgrades.

Figure 157 Example of an Edited License File



10 Save the edited license file from the File>Save menu.

Figure 158 Save Edited License File



11 Iconize the “Text Editor - license.dat” window.

G. Check License File Integrity

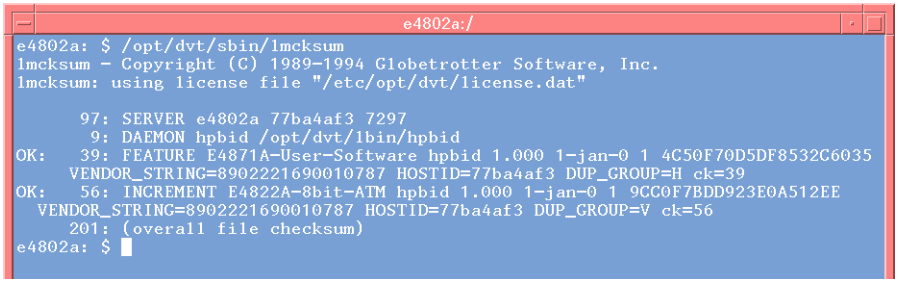
12 Open the command input window ‘hpterm’ again.

13 To check whether the edited ‘license.dat’file is ok, type the following command at the prompt:
`e4802a:dvt $ /opt/dvt/sbin/lmcksum`
Then press the [Enter] or [Return] key.

NOTE: A checksum proof is performed. If the file is not ok, then the lines with errors are marked as “bad”. Edit the license.dat file again, and check license file integrity by running the above command again. In case that after several editing cycles you do not get a correct license file, it is recommended to restore the ‘old’ license file (E. Backup Current ‘license.dat’ File:, see page 140.), and to call HP to get assistance in solving the problem.

To restore the ‘old’ license file type at the user prompt:
`e4802a:dvt $ cp /tmp/license_dat.old /etc/opt/dvt/license.dat`
Then press the [Enter] or [Return] key.

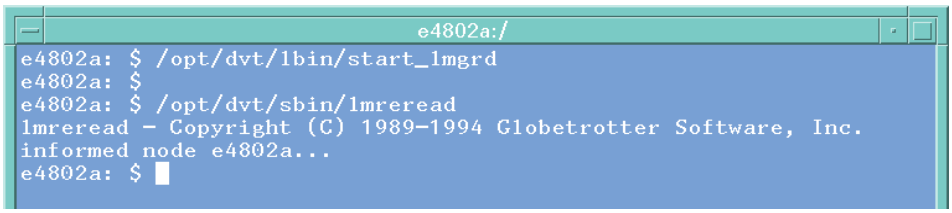
Figure 159 Check License File Integrity



14 Start the license manager by typing at the prompt:
`e4802a:dvt $ /opt/dvt/lbin/start_lmgrd`
Then press the [Enter] or [Return] key.

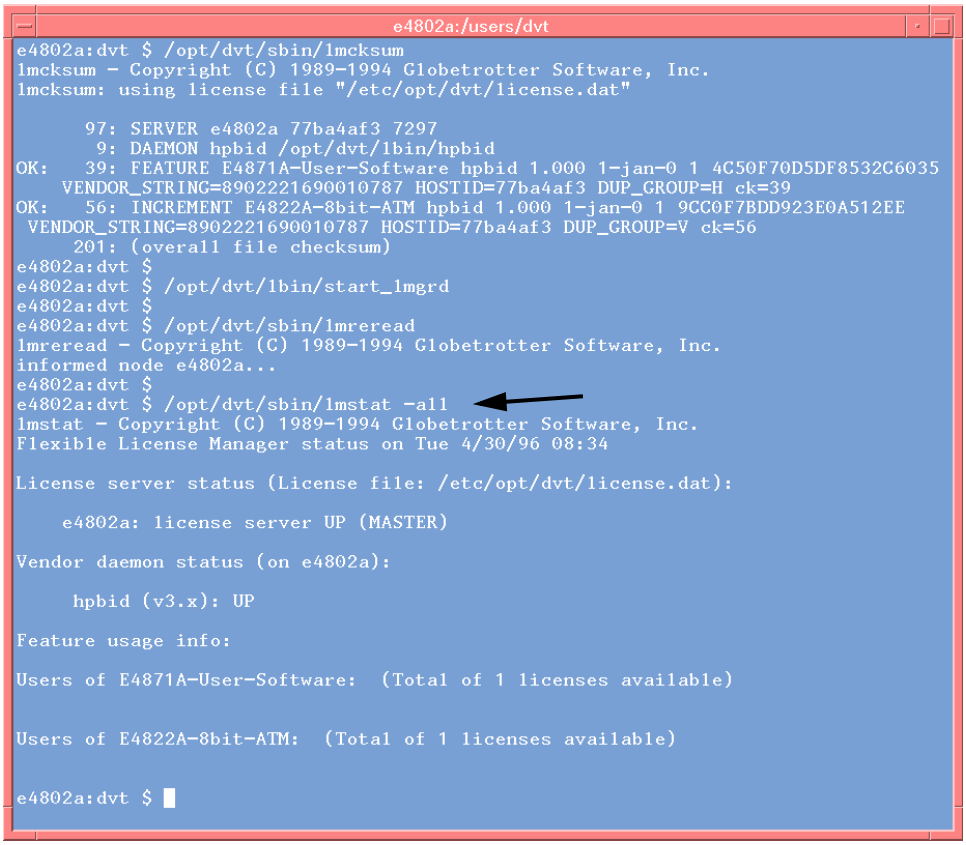
15 Re-read the licence file by typing at the prompt:
`e4802a:dvt $ /opt/dvt/sbin/lmreread`
Then press the [Enter] or [Return] key.

Figure 160 Start License Manager and Re-read License File



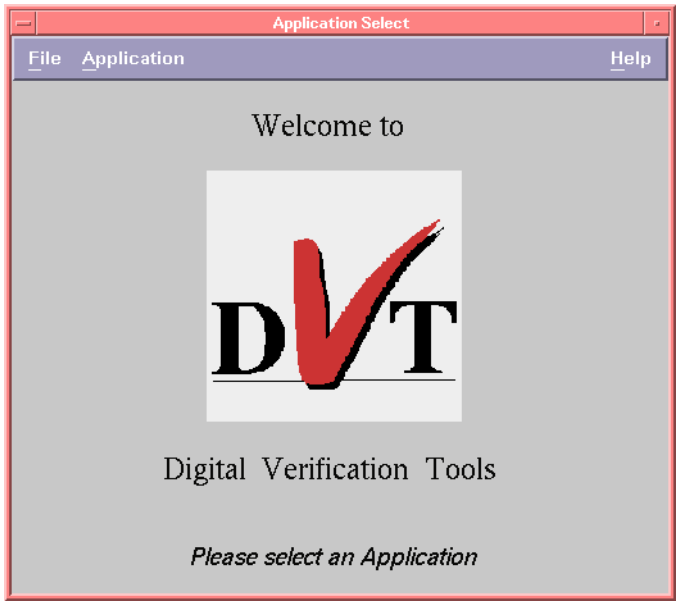
16 Check whether all the licenses are present by typing at the prompt:
`e4802a:dvt $ /opt/dvt/sbin/lmstat -all`
Then press the [Enter] or [Return] key:

Figure 161 Check whether all Licenses are present



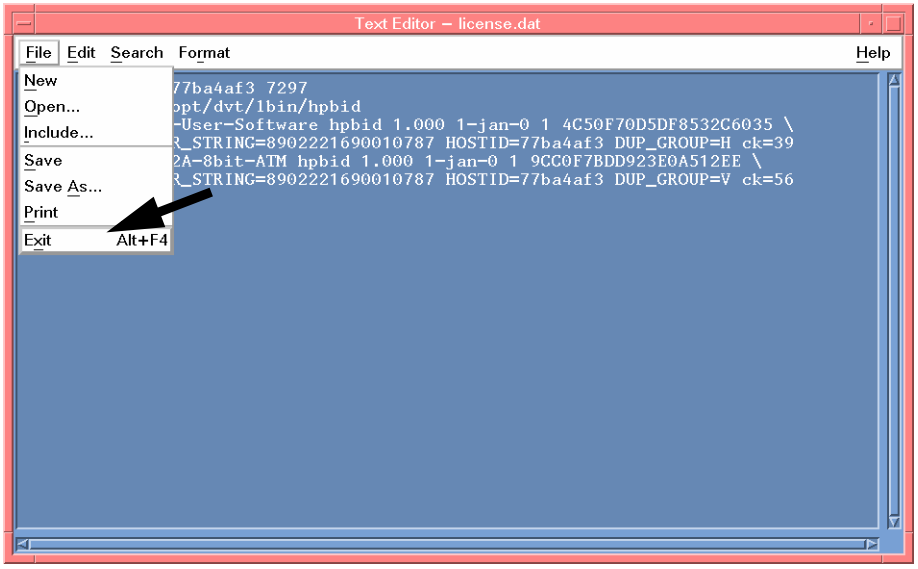
17 Start the DVT software by clicking on the DVT button. After about one minute the Application Select window should appear, without having to acknowledge the temporary licenses.

Figure 162 Application Select Window is Displayed after Clicking DVT Button



18 Double click on the iconized edit window ‘Text Editor - license.dat’ and close it from the File>Exit menu.

Figure 163 Close the Edit Window for the ‘license.dat’ File



H. Further Information about the License Manager

Further information about the license manager can be found in the “UNIX man pages” (on-line help information). The following “man pages” are available in the system:

lmcksum (1)	lmdown(1)	lmgrd(1)	lmhostid(1)
lmremove(1)	lmreread(1)	lmstat(1)	lmutil(1)
lmver(1)	license.dat(5)	license.options(5)	

To display the “manual pages” type at the user prompt for example:

```
e4802a:dvt $ man lmcksum
```

Then press the [Enter] or [Return] key.

When ‘More’ is displayed in the window press the spacebar to see and read the next page. Press the spacebar as often as required to see the user prompt again.

Request Fax for Permanent Licenses

Hewlett-Packard GmbH
BID PL24, Prod. W2 EG
Herrenberger Str. 130
71034 Boeblingen
GERMANY

HEWLETT PACKARD

License Activation Key

E4829A,B Option UAH, UAF // E4871A Option UAH, UAF / 011, 012

Request FAX

To:	BID PL24, Product Support	Fax Number:
Company:	HEWLETT-PACKARD GmbH	(+49) 7031 14 6532

To receive your license activation key, please complete this request fax LEGIBLY in its entirety and fax it to the above number.

We will fax you the license activation key for activating your system within two working days of receiving this request.

Contact Information

First Name _____

Last Name _____

Title _____

Phone No. _____

FAX No. _____

email _____

Company Address

Company _____

Department _____

Street _____

Zip, City _____

Country _____

Installation Information

Host ID No.: _____
type at the UNIX prompt $ */opt/dvt/sbin/lmhostid*

Hostname: _____
type at the UNIX prompt $ ***hostname***

Module		and	**Software Information**	
Module	***Serial Number***		***Software***	***Serial Number***
E4821A			E4871A	
E4821A			E4822A	
E4821A			E4822A	
E4821A			E4822A	
E4821A			E4822A	
E ____ A			E48 __ A	
E ____ A			E4823A	
E ____ A			E4823A	
E ____ A			E4823A	
E ____ A			E4823A	

DVT

E4829-90001 **Digital Verification Tools** Product Support PL24

Request Fax for Incremental Licenses

Hewlett-Packard GmbH
BID PL24, Prod. W2 EG
Herrenberger Str. 130
71034 Boeblingen
GERMANY

HEWLETT® PACKARD

License Activation Key

Request FAX

To:	BID PL24, Product Support	**Fax Number**
Company:	HEWLETT-PACKARD GmbH	**(+49) 7031 14 6532**

To receive your license activation key, please complete this request fax LEGIBLY in its entirety and fax it to the above number.

We will fax you the license activation key for activating your system within two working days of receiving this request.

Contact Information

First Name _____

Last Name _____

Title _____

Phone No. _____

FAX No. _____

email _____

Company Address

Company _____

Department _____

Street _____

Zip, City _____

Country _____

Installation Information

Host ID No.: _____
type at the UNIX prompt $ ***/opt/dvt/sbin/lmhostid***

Hostname: _____
type at the UNIX promt $ ***hostname***

DVT

E4800-90001 **Digital Verification Tools** Product Support PL24

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Chapter 11

Additional DVT Tools

Running Additional DVT Tools in a Single VXI Mainframe

Multiple DVT tools can be present on one hard disk module.

It is possible to run two different DVT Tools and, if present, also one BSTS application at the same time.

To start multiple DVT applications:

1 Click on the DVT button.

2 Then start one of the DVT application from the “Application Select” window.

3 Click on the DVT button again.

4 Start the other application from the “Application Select” window.

Installation Hints

DVT Tools are:

- Serial Cell Generator and Analyzer application
- Parallel Cell Generator and Analyzer application

Keep the specific modules of the different DVT Tools in adjacent slots.

The HP E4805A Clock Module, in the serial cell application must be leftmost .

It is not possible to run ATM-8 and ATM-16 applications at the same time.

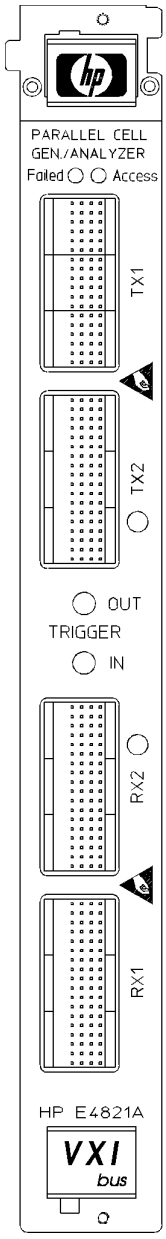
Chapter 12

General Specifications

HP E4821A Generator and Analyzer Module

Contains one Transmitter (Tx) and one Receiver (Rx) port.

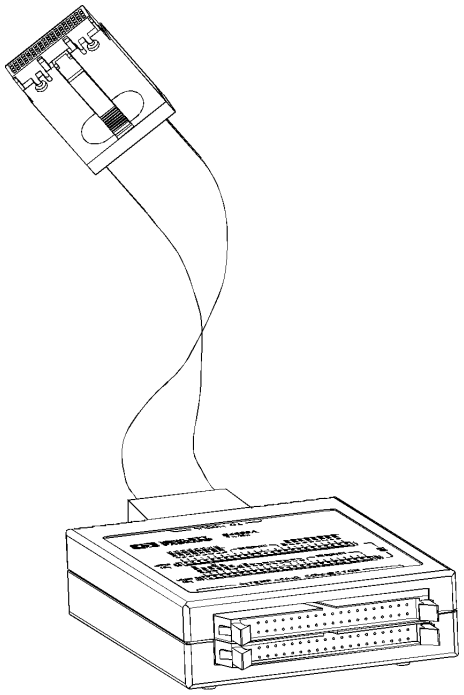
Figure 164 HP E4821A Parallel Cell Traffic Generator and Analyzer Module



HP E4889A Active Pod

The HP E4889A is an active stimulus / response pod, it interfaces between the HP E4821A and the device under test (DUT). A separate pod is required for the transmitter and receiver port.

Figure 165 HP E4889A Active Pod with Module-to-pod Cable E4889-61601 Connected



HP E4871A User Software

The user software provides a graphical user interface to control the HP E4821A module and E4889A pod.

Store / recall	cells and settings per channel and complete settings can be stored and recalled.
On-line help	provides context sensitive help text.
Reset	recalls a valid default setting for the HP E4821A.
Configuration	multiple generators and analyzers can be controlled from the same user interface. Current configuration of the modules installed can be recalled from the user interface.
Licenses	One node-locked on-line license and one off-line license (for operation via LAN connection) are included. ATM8 or ATM16 personality software licenses have to be ordered separately.

General System Characteristics for HP E4829B

Operating temperature	5°C to 40°C.
Storage temperature	-20°C to +60°C.
Humidity	80% rel. humidity @ 40°C.
Weight net	28 kg (61.7 lb), Standard configuration only.
Weight shipping	49 kg (108 lb), Standard configuration only.
Number of free slots	10 (if no further modules are originally ordered).
Power requirements	see HP E1401B documents.
Power consumption	see HP E1401B documents.
Acoustic Noise	see HP E1401B documents.
Physical Dimensions	see HP E1401B documents.
Safety	see HP E1401B documents.
Interfaces	LAN AUI, dual RS-232, SCSI-2 for ext devices, HP-IB, Trigger in/out, Mini-DIN connectors for keyboard and mouse, 768x1024, 75 Hz, graphics output. See also HP E1497A.
Battery	Lithium battery (BR-2325). See also HP E1497A documents.
Removable media	3.5-inch floptical disk. See also HP E4208A/B documents.
Preset logical VXI address	HP E1497A: 0, installed in slot 0 HP E4208A/B: 16, installed in slot 1 HP E4821A: 24, installed in slot 2 The addresses of additional modules are in multiples of 8.

General Characteristics for HP E4821A Module and HP E4889A Active Pod

Table 5 **General Module Characteristics**

	HP E4821A Parallel Cell Traffic Generator and Analyzer	HP 4889A Active Pod
Size	VXI-C-size, 1 slot	(WxHxD) 175 x 27 x 126 mm
Module Type	register-based	n/a
Weight Net	1.5 kg (3.3 lb)	0.25 kg (0.55 lb)
Module ID	246 HEX	n/a
Current drawn from VXI back-plane supply voltage: **+12 V** **+5 V** **-2 V** **-5.2 V** **Power dissipation**	 0.9 A 7.0 A 1.0 A 1.0 A 53 W	n/a

Warranty HP E4821A: 3 years.
HP E4889A: 1 year.

Recalibration period HP E4821A: 3 years recommended,
HP E4889A: equivalent E4821A recalibration period is recommended.

ISO 9001 modules are produced according to ISO 9001 quality system.

DECLARATION OF CONFORMITY

Manufacturer: Hewlett-Packard GmbH
Boeblingen Instruments Division
Herrenberger Str.130
D-71034 Boeblingen, Germany

We declare that the products:

HP E4829B **Parallel Cell/Traffic Generator and Analyzer System**
besides other units (1) consists of:
HP E4821A (3) **Parallel Cell/Traffic Generator/Analyzer Module**
HP E4889A (2) (3) **Active TTL compatible POD**
conform to the following standards:

Safety: IEC 1010-1:1990 +A1:1992 EN61010-1:1993

EMC (radiation): EN 55011:1991 / CISPR 11 Group 1, Class A (4)

(immunity): EN 50082-1:1992

IEC 801-2:1992	ESD	4kV cd, 8kV ad
IEC 801-3:1992	Radiated Immunity	3V/m
IEC 801-4:1988	Fast Transients	0.5kV, 1kV

Supplementary Information:

The product herewith complies with the requirements of the
- Low Voltage Directive (73/23/EEC) and the
- EMC Directive (89/336/EEC).

(1) The products were installed and operated as in a system bundle like HP E4829B, consisting of other products like:

HP E4822A (2)	ATM-8 SW License
HP E4823A (2)	ATM-16 SW License
HP E4871A	User Software
HP E1401B	C-size, high power, 13 slot VXI Mainfram
HP E1497A	V743/64 embedded VXI controller module
HP E4208B	1GByte SCSI Disk Drive Module

(2) These products are not part of the system bundle and must be ordered seperately.

(3) Multiple units of these products may be installed.
(4) The system exceeds the requirements of EN 55011 in set-ups given from the standards. A Technical Construction File (TCF) got a certificate (#K123576H) from a Competent Body. For installations in an EU country, the site attenuation requirements must be attended to. They are stated in the *Installation Guide (E4829-91010) section: Setting up the E4829B System*.

Boeblingen, 15. April 1996

Hans Baisch
BID Regulations Consultant

Chapter 13

Troubleshooting

Errors Communicated by the Module Front Panel LED

The fatal error number is communicated by flashing of the “Access” LED on the module front panel. This LED flashes X times (where X is the fatal error number), pauses and then repeats.

Table 6 **Fatal Error Table**

Fatal Error Type	Fatal Error No	Description	Error Message String
Hardware Error	1	RAM Test failed	
	2	FPGA not configurable	“unknown hardware error!”
	3	FPGA configuration failed	<not used>
	4	Framing error during FPGA configuration	
Interrupt Error	5	Bus error	“bus error interrupt!”
	6	Address error	“address error interrupt!”
	7	Divide by zero	“divide by zero interrupt!”
	8	Unknown interrupt error	“unknown error interrupt!”
BIOS Assert	9	BIOS assert error	“<bios assert string>”
Display Message	10	Display message error	“display message error: <string>!”

Hardware Errors 1 to 4

Hardware errors 1 to 4 are reported during the module boot process, before the user software is started.

In case of an hardware error it is recommended to replace the module.

Errors 5 to 10

The errors 5 to 10 may be reported at any time.

In case of error 5 to 10 it is recommended to reboot the system by executing the ‘/etc/reboot -q’ command from the root prompt. If afterwards there is still a software error present it is recommended to get in contact with HP.

What to do when ...?

The System does not boot

There is no display at all

- AC line connection is missing. Check for proper connection.
- Monitor cable connection to the controller is missing. Check for proper connection.
- A monitor other than the default one is used. Other monitors need other settings.

NOTE: In the V743 controller's Installation Guide, please refer to the "Initial Turn-On and Getting Started" section when you do not get a readable display, or refer to the "Graphics Configuration with Boot Console Handler" section when it is desirable to change the currently configured graphics mode for your monitor used. The default graphics setting is 1024 x 768, 70 Hz.

- In stand-alone mode the system needs the EtherTwist Transceiver's loopback test switch enabled, all other switches disabled. See Figure 126 in Appendix A.

No Input from Keyboard is accepted.

- Keyboard inputs cause the system to malfunction. Check whether a 'US-english' keyboard is used.

Operating System does not boot

- SCSI cable connection between controller and disk module is either missing or not properly done.
- The SCSI - ID switches on the disk module's front panel are not set to the default values "[0 | 6]". For further information refer to the HP E4208A Installation Guide.
- A different disk module than the originally shipped one is used without an operating system pre-installed.

There is No Signal Output

Perform a Verification Test

Please refer to the Getting Started Guide, p/n E4871-91011 how to perform the verification test.

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Appendix A

Default System Settings

Default System Settings

UNIX Version	Minimal HP-UX Version 9.0x plus CORE man pages.
SWAP space	200 Mbyte.
Minimum free	10% of hard disk.
Timezone	Middle European Timezone (MEZ).
Date/Time	German local date and time.
Networking	yes.
Monitor	Resolution: 1024 x 768, 70 Hz, prepared for a 17 inch monitor.
Keyboard	US-English.
Hostname	‘e4802a’.
IP address	192.001.001.001.
Username	‘dvt’.
User password	no password set.
Home directory	‘/users/dvt’.
Root password	no password set.

EtherTwist LAN Transceiver Switch Setting

The factory switch setting of the EtherTwist LAN Transceiver is for stand-alone operation.

Figure 166 Factory Switch Setting for the EtherTwist Transceiver when Shipped with HP E4859A System

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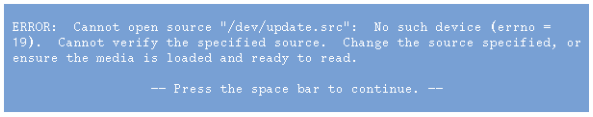
Appendix B

Configuring a SCSI Tape Drive

Procedure to install the SCSI Tape Driver in the Unix Kernel

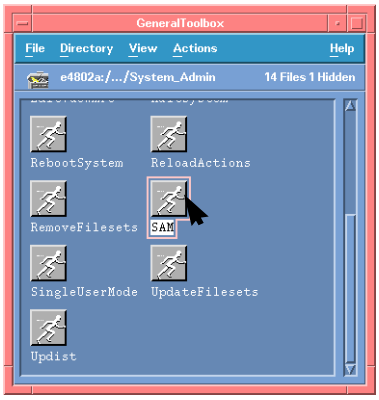
NOTE: Perform this procedure only if you have problems communicating with the tape and you are sure the Tape Drive is connected properly and the tape is inserted in the Tape Drive. A typical error message when the system cannot access the tape is shown in Figure 167:

Figure 167 Typical Error Message



1 In the General Toolbox window (General->System Admin) click on the ‘SAM’ icon, see Figure 168:

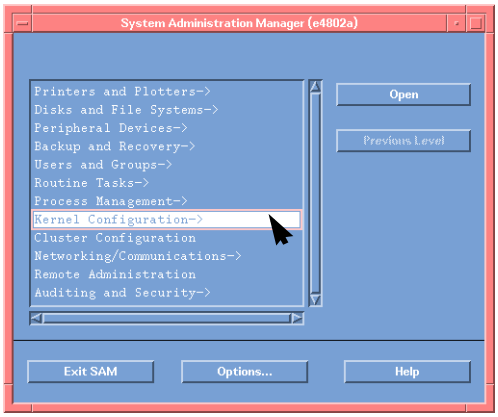
Figure 168 GeneralToolbox/System_Admin Window



This opens the System Administration Manager (SAM) window.

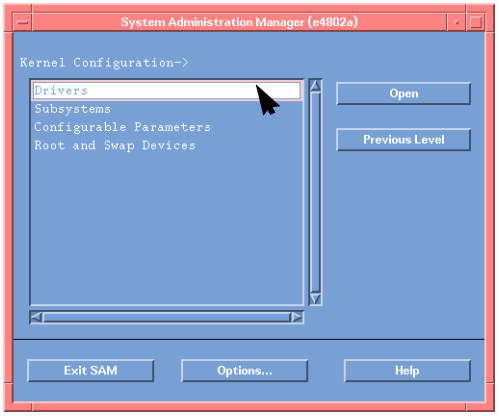
2 Using the cursor keys select the ‘Kernel Configuration->’ option and press [Enter], see Figure 169:

Figure 169 Select ‘Kernel Configuration->’ Option



3 Select the ‘Drivers’ option and press [Enter], see Figure 170.

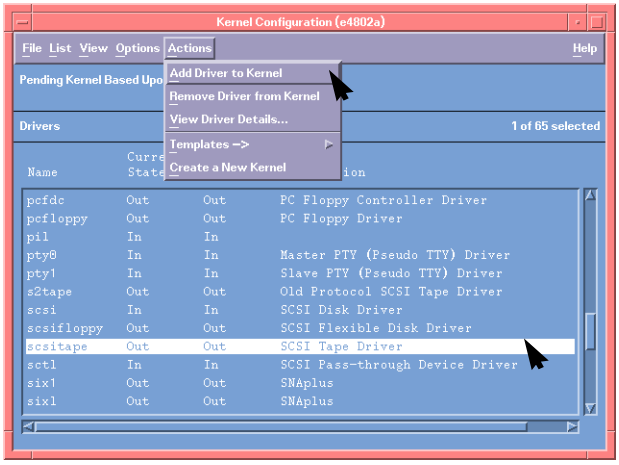
Figure 170 Select ‘Drivers’ Option



A window showing a list of all drivers included and not included in the kernel is displayed, see Figure 171.

4 Using the scroll bar, locate the driver ‘scsitape’ (description - ‘SCSI Tape Driver’). If the current state of this driver is ‘Out’ then we can proceed to include this driver in the kernel, see Figure 171.

Figure 171 Add ‘scsitape’ Driver to the Kernel



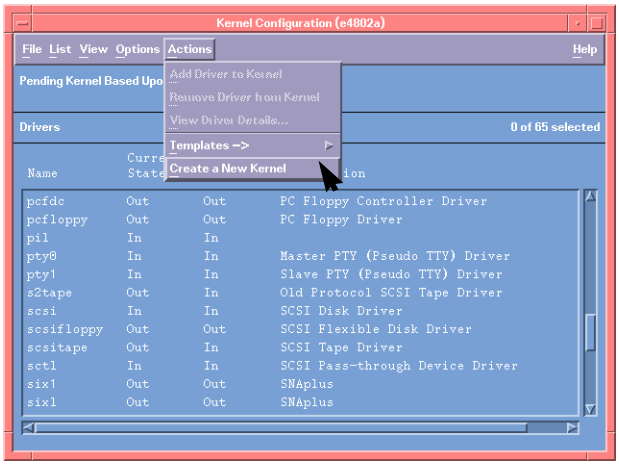
NOTE: If the current state of this driver is ‘In’, then the driver is already included and some other problem exists, you should exit the SAM tool and contact your system administrator.

5 Highlight the ‘SCSI Tape Driver’ by clicking on it, see Figure 171.

6 From the Actions menu select the option ‘Add Driver to Kernel’. This changes the Pending State to ‘In’.

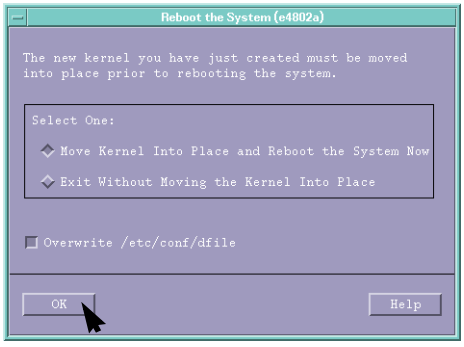
7 Again from the Actions menu select the option ‘Create a New Kernel’. Click ‘Yes’ in response to the dialog, to create the new kernel, see Figure 172.

Figure 172 Create New Kernel



In the ‘Reboot the System’ dialog window, ensure the options ‘Move Kernel Into Place and Reboot the System Now’ and ‘Overwrite /etc/conf/dfile’ are selected:

Figure 173 ‘Reboot the System’ Dialog Window



8 Click OK to reboot the system.

9 Click OK in response to the ‘Note’ dialog.

The SCSI Tape Driver should now be included in the system kernel. When the system has rebooted, please repeat the ‘Software Update Instructions’ omitting the ‘Remove Filesets’ step.

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Appendix C

Editing SICL Configuration

General Information

To configure a local printer to older systems it is necessary to edit the SICL configuration file '/usr/pil/etc/hwconfig.cf'. It is necessary to have a comment mark in front of the lines for the two serial Interfaces of the V/743 controller.

When the configuration file is edited it is necessary to run the SICL configuration program '/usr/pil/bin/pilconf'. This program will update the SICL configuration of the system and built a new kernel.

A. Login as 'root'

1 Start the system, if not already running.

2 Login as 'root'. If necessary 'Exit' the current user workspace by clicking on the 'Exit' button in the VUE front panel.

B. Open a Command Input Window 'hpterm'

3 In the 'root' workspace open a command input window 'hpterm' by clicking on the terminal icon in the VUE front panel.

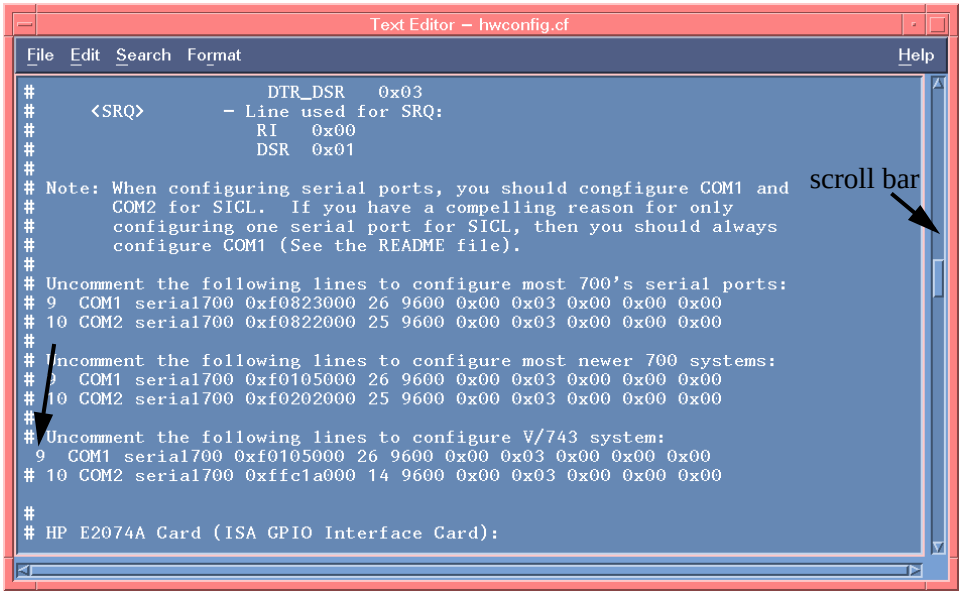
C. Edit the '/usr/pil/etc/hwconfig.cf File

4 Open the SICL configuration file '/usr/pil/etc/hwconfig.cf', type at the root prompt (#):
`# /usr/vue/bin/vuepad /usr/pil/etc/hwconfig.cf`
then press the [Return] or [Enter] key.

Figure 174 Open the '/usr/pil/etc/hwconfig.cf' File

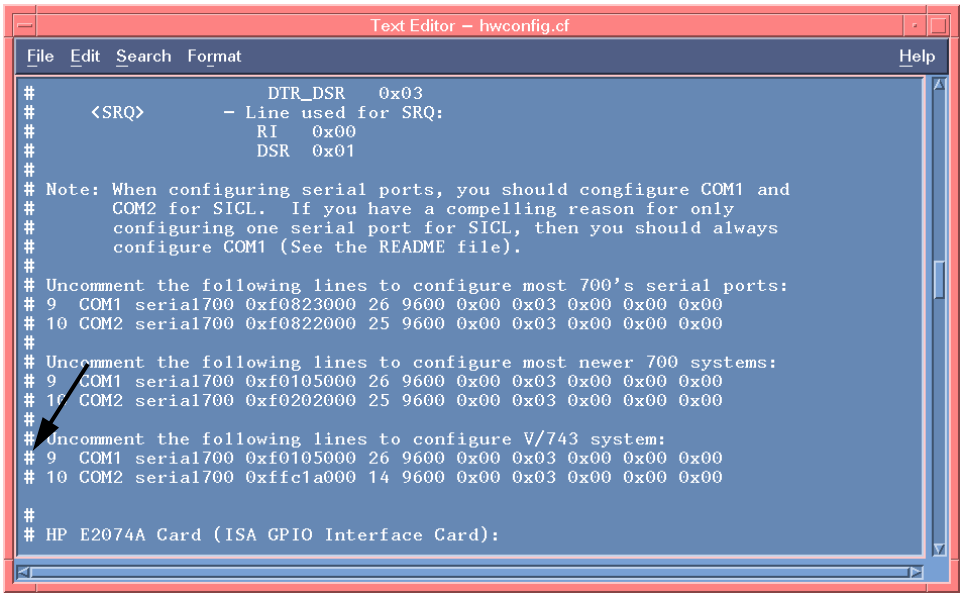
5 Move the cursor by scrolling down with the scroll bar to the line:
`9 COM1 serial700 0xf01050000 26 9600 0x00 0x03 0x00 0x00 0x00`

Figure 175 Move Cursor



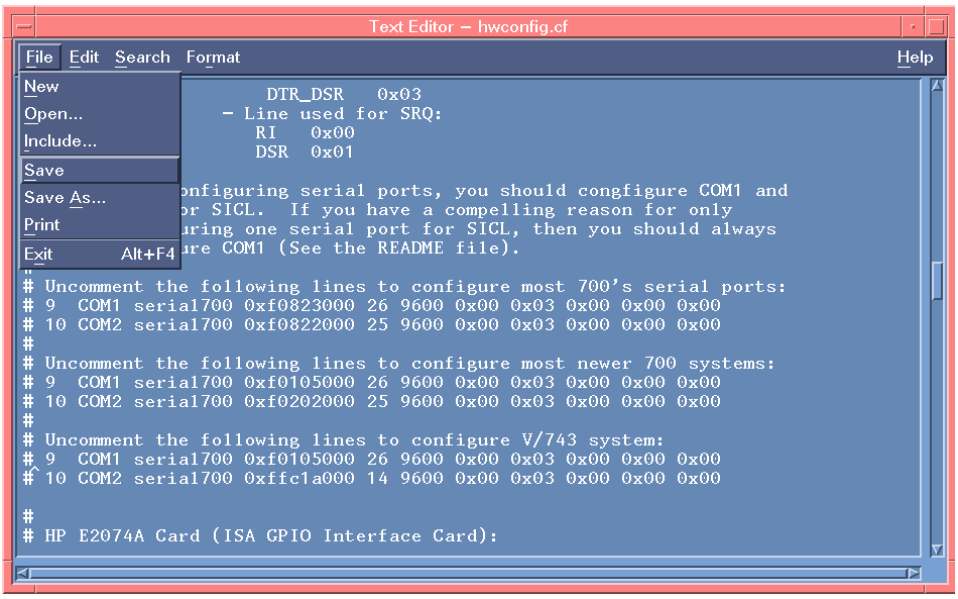
6 Comment out this line by adding a '#' in front of the line.

Figure 176 Commenting out the Line



7 Save the edited file from the File>Save menu. Then close the file from the File>Exit menu.

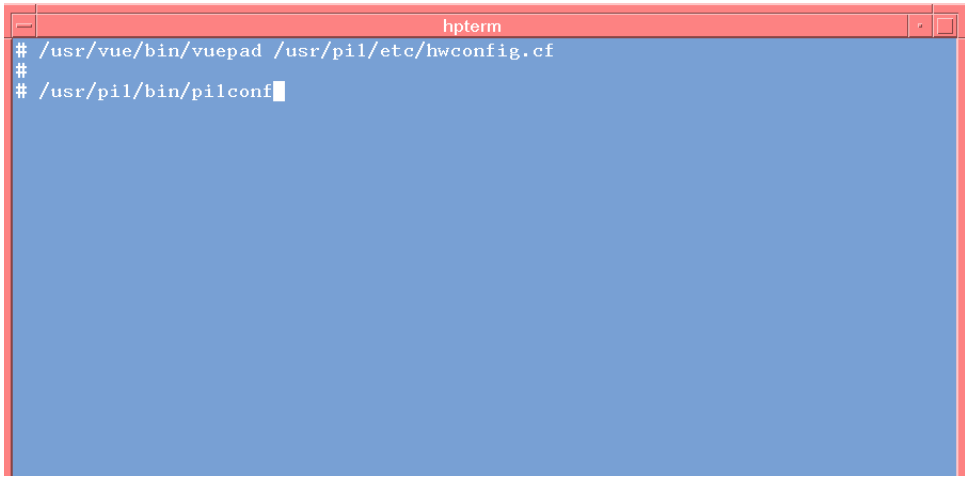
Figure 177 Save the Edited File



D. Start the '/usr/pil/bin/pilconf' Program

8 Run the SICL configuration program. Type at the root prompt (#) in the 'hpterm' window:
`# /usr/pil/bin/pilconf`
then press the [Return] or [Enter] key.

Figure 178 Start the '/usr/pil/bin/pilconf' Program



While the program runs, it prompts with the following questions:

9 The configured I/O cards are displayed. Check whether there is no serial Interface card specified. Type ‘y’ to the prompt “Is this ok (y or n)?” {‘y’ is the default}, then press [Enter] or [Return] key, see Figure 179.
In case that there is still a serial Interface card specified terminate the program with [Ctrl]-C and go back to the step 4.

10 Type ‘y’ at the prompt “OK to use dfile: /etc/conf/dfile (y or n)?” {‘y’ is the default}, then press [Enter] or [Return] key, see Figure 179.
This step will take some time to be completed and before the next prompt will be displayed.

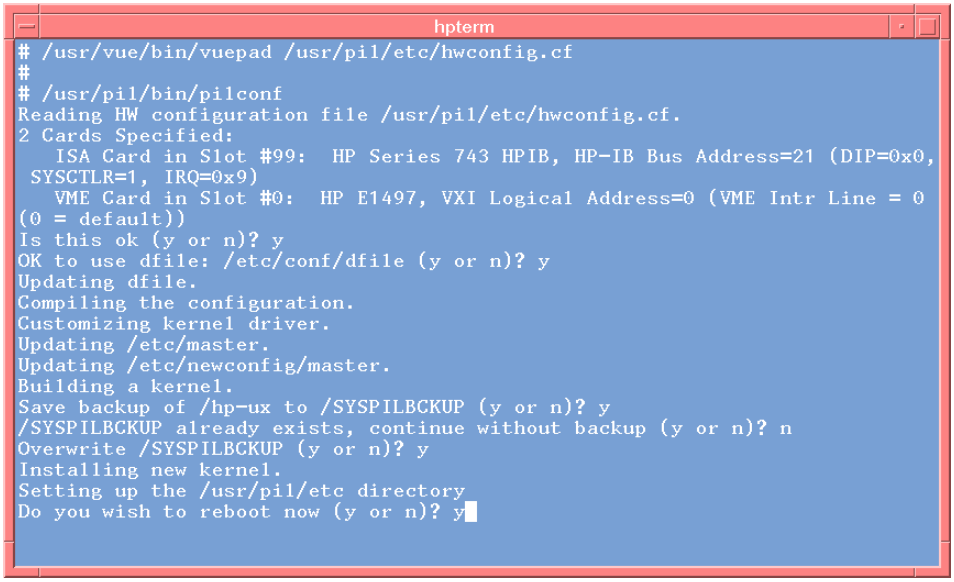
11 Type ‘y’ at the prompt “Save backup of /hp-ux to /SYSPILBCKUP (y or n)?” {‘y’ is the default}, then press [Enter] or [Return] key, see Figure 179.

12 Type ‘n’ at the prompt “/SYSPILBCKUP already exists, continue without backup (y or n)?” {‘n’ is the default}, then press [Enter] or [Return] key, see Figure 179.

13 Type ‘y’ at the prompt “Overwrite /SYSPILBCKUP (y or n)?” {‘y’ is the default}, then press [Enter] or [Return] key, see Figure 179.
The current kernel will be backed up and a new kernel created and installed.

14 Type ‘y’ at the prompt “Do you wish to reboot now (y or n)?” {‘y’ is the default}, then press [Enter] or [Return] key, see Figure 179.

Figure 179 Program ‘/usr/pil/bin/pilconf’



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Appendix D

Accessing the Floptical Drive

Accessing DOS-Formated Disks

Write-protect mode on floptical drive

Every disk that is inserted into the floptical drive defaults to (ie. is micro-coded to) write-protect mode. This includes both floptical and floppy disks, in UNIX or DOS format.

To remove the write-protect mode the ‘fd_fix’ command is provided. Invoke ‘fd_fix’ once, to disable write-protect, before writing to the floptical drive.

Available UNIX Commands

UNIX provides the following set of commands for reading from and writing to DOS-formatted disks:

Task to perform	Command to use
List a DOS directory’s contents (short listing)	dosls
List a DOS directory’s contents (long listing)	dosll
Display free disk clusters	dosdf
Make a DOS directory	dosmkdir
Copy DOS files	doscp
Remove a DOS file	dosrm
Remove a DOS directory	dosrmdir
Change access mode of DOS file	doschmod
Convert DOS to UNIX format	dos2ux
Convert UNIX to DOS format	ux2dos

By default, writing to the floptical drive (and other device files) requires root privilege.

NOTE: DOS disks must be formated on another system. There is no UNIX command to do so. There is no need to mount or unmount DOS-formatted disks.

Default Device File of the Floptical Drive:

The default device file of the floptical drive is '/dev/dsk/c201d0s0' (for the V/743 controller).
When specifying files on the DOS disk, use the format "<device file>:<file>".

Remove the write-protect on the floptical disk:

This command must be executed each time you start writing to the floptical drive.
Type at the root prompt:
`# /opt/dvt/bin/fd_fix`
then press [Enter] or [Return] key.

Programming Examples

Precondition for the following examples is that a text file 'TEST.DAT'is present on the DOS disk and a text file 'text.dat' is available in the current UNIX directory.

1. Display the contents of the DOS disk with long listing:

Type at the root prompt:
`# dosll /dev/dsk/c201d0s0:`
then press [Enter] or [Return] key.

The displayed response looks as follows:

```
The DOS Volume Label is DOS-DISK
  40 640 Apr  28  1996  10:18  /dev/dsk/c201d0s0:/TEST.DAT
```

2. Make a DOS directory on the disk:

Type at the root prompt:
`# dosmkdir /dev/dsk/c201d0s0:testdir`
then press [Enter] or [Return] key.

3. Display the contents of the DOS disk with short listing:

Type at the root prompt:
`# dosls /dev/dsk/c201d0s0:`
then press [Enter] or [Return] key.

The displayed response looks as follows:

```
/dev/dsk/c201d0s0:/TEST.DAT
/dev/dsk/c201d0s0:/TESTDIR/
```

4. Copy a file from the DOS disk to the actual UNIX directory:

Type at the root prompt:
`# doscp /dev/dsk/c201d0s0:test.dat test_dos.dat`
then press [Enter] or [Return] key.

5. Convert a text file from DOS format to UNIX format:

Type at the root prompt:
`# dos2ux test_dos.dat > test_unix.dat`
then press [Enter] or [Return] key.

With the command ‘ls’ you display the contents of the current directory as a short listing. You should find the files ‘test_dos.dat’ and ‘test_unix.dat’.

6. Convert a text file from UNIX format to DOS format:

Type at the root prompt:
`# ux2dos text.dat > text_dos.dat`
then press [Enter] or [Return] key.

7. Copy a file to the ‘testdir’ directory on the DOS disk:

Type at the root prompt:
`# doscp text_dos.dat /dev/dsk/c201d0s0:testdir`
then press [Enter] or [Return] key.

8. Display the contents of the ‘testdir’ directory of the DOS disk with short listing:

Type at the root prompt:
`# dosls /dev/dsk/c201d0s0:testdir`
then press [Enter] or [Return] key.

The displayed response looks as follows:
`/dev/dsk/c201d0s0:/TESTDIR/TEXT_DOS.DAT`

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