

# Compaq Pascal

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## Installation Guide for Tru64 UNIX

Order Number: AA-PV38B-TE

**June 1999**

This guide describes how to install *Compaq Pascal* on an Alpha processor running the *Tru64 UNIX* operating system.

<b>Revision/Update Information:</b>	This is a new guide.
<b>Operating System:</b>	DIGITAL UNIX Version 4.0B through 4.0E, <i>Tru64 UNIX</i> Version 4.0F or higher. Future maintenance releases may require higher versions.
<b>Software Version:</b>	<i>Compaq Pascal</i> for <i>Tru64 UNIX</i> Systems Version 5.7.

**Compaq Computer Corporation**  
**Houston, Texas**

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**June 1999**

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ZK6085

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This document was prepared using VAX DOCUMENT Version 2.1.

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# Preface

This guide explains how to:

- Install *Compaq Pascal* on an Alpha processor running the *Tru64 UNIX* operating system
- Read the online release notes

The installation procedure creates *Compaq Pascal* directories subordinate to the `/usr/lib/cmplrs` and `/usr/man` directories and loads *Compaq Pascal* software and Compaq Compiled Code Support Library subsets.

Keep this guide with your software distribution kit (see Section 1.1). You will need it to install maintenance updates or to reinstall *Compaq Pascal* for any other reason.

## Intended Audience

This guide is intended for system managers who install *Compaq Pascal*. The online release notes are intended for both system managers and *Compaq Pascal* users.

## Document Structure

This guide contains the following chapters and appendix:

- Chapter 1 describes the hardware and software requirements for the *Compaq Pascal* installation and related procedures that you complete before installing *Compaq Pascal*.
- Chapter 2 describes the *Compaq Pascal* installation procedure.
- Chapter 3 describes the *Compaq Pascal* Installation Verification Procedure (IVP) and any postinstallation procedures you must complete to use *Compaq Pascal*. This chapter also describes how to remove *Compaq Pascal* from your system.

- Appendix A contains sample listings of a *Compaq Pascal* installation and a *Compaq Pascal* IVP.

## Related Documents

In addition to this guide, the *Compaq Pascal* documentation set includes the following manuals:

- *Compaq Pascal Language Reference Manual*
- *Compaq Pascal User Manual for Tru64 UNIX*

The *Tru64 UNIX* documentation set includes online reference pages and hardcopy documentation on installing software and on aspects of the programming environment. You may want to refer to the *Tru64 UNIX Reader's Guide*, which includes a list of books in the programmer's subkit.

The following manuals in the *Tru64 UNIX* documentation set contain information relevant to installing software:

- *Guide to Installing Tru64 UNIX*
- *Guide to System and Network Setup and Configuration*
- *Guide to System Administration*

## Reader's Comments

Compaq welcomes your comments. If you would like to comment on a *Compaq Pascal* manual, please send the manual title, order number, and your comments by one of the following methods:

- FAX: 603-884-0120  
Attn: Languages Documentation, ZK02-3/K35
- A letter sent to the following address:

Compaq Computer Corporation  
Languages Documentation, ZK02-3/K35  
110 Spit Brook Road  
Nashua, NH 03062-2698  
USA

## Conventions

This guide uses the following documentation conventions:

### **Product Names**

The DIGITAL UNIX operating system (formerly known as DEC OSF/1) is now the *Tru64 UNIX* operating system. Any references to DIGITAL UNIX or DEC OSF/1 are synonymous with *Tru64 UNIX* unless specified otherwise.

Convention	Meaning
#	A pound sign (#) is the default superuser prompt.
%	A percent sign (%) is the default user prompt.
<span style="border: 1px solid black; padding: 2px;">Return</span>	In examples, a boxed symbol indicates that you must press the named key on the keyboard.
Ctrl/C	This symbol indicates that you must press the Ctrl key while you simultaneously press another key (in this case, C).
Username: # <b>df /usr</b>	In interactive examples, prompts or displayed text appears in a monospace font. User input appears in <b>bold monospace</b> font.
monospaced	In text, this font indicates the exact name of a command, routine, partition, pathname, directory, or file. This font is also used in interactive examples and other screen displays.
UPPERCASE lowercase	The <i>Tru64 UNIX</i> operating system differentiates between lowercase and uppercase characters. Literal strings that appear in text, examples, syntax descriptions, and function definitions must be typed exactly as shown.
setld(8)	Cross-references to online reference pages include the appropriate section number in parentheses. For example, setld(8) indicates that you can find the material on the setld command in Section 8 of the reference pages.
[y]	In a prompt, square brackets indicate that the enclosed item is the default response. For example, [y] means the default response is Yes.
<i>Tru64 UNIX</i>	References to <i>Tru64 UNIX</i> refer to the <i>Compaq Tru64 UNIX</i> operating system.
<i>Vn.n</i> <i>nnn</i>	In some code examples, version numbers are given as shown. When you install <i>Compaq Pascal</i> , the actual version numbers appear on your screen.

Unless otherwise noted, press the Return key after entering commands or responses to command prompts.

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#### Note

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Digital Equipment Corporation is now owned by Compaq Computer Corporation. *Compaq Pascal* was formerly known as DEC Pascal. References to DEC Pascal in product components are the same as references to *Compaq Pascal*.

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# Preparing to Install Compaq Pascal

This chapter discusses the preparations and requirements necessary for installing *Compaq Pascal* Version 5.7.

Your bill of materials (BOM) and indented bills report (BIL) specify the number and contents of your media. Be sure to verify the contents of your kit with this information. If your kit is damaged or if you find that parts of it are missing, contact your Compaq representative.

*Compaq Pascal* provides online release notes, which are in:

```
/usr/lib/cmplrs/pc/relnotes
```

You can use the following command to read the release notes after *Compaq Pascal* is installed:

```
# more /usr/lib/cmplrs/pc/relnotes
```

Compaq strongly recommends that you read the release notes before proceeding with the installation. For information on accessing the online release notes, see Section 2.1.1.1.

Your distribution kit includes a "Read First" cover letter. Please read this cover letter for information that is important for you to know before installing *Compaq Pascal*. This information may not be included in this installation guide or the release notes.

## 1.1 The Software Distribution Kit

*Compaq Pascal* for *Tru64 UNIX* systems media and documentation is provided on two CD-ROM devices:

- Software Binaries Layered Products Compact Disc (or Media CD)
- Documentation Compact Disc

You can use the Bill of Materials (BOM) to check the contents of your *Compaq Pascal* software distribution kit. If your software distribution kit is damaged or incomplete, contact your Compaq representative (see Section 1.7).

### 1.1.1 Contents of the Media CD

The Media CD contains the following software and documentation:

- The *Compaq Pascal* software
- The *Compaq Pascal* installation subsets (used with `setld(8)`) needed to install the software
- *Compaq Pascal Installation Guide for Tru64 UNIX* (this guide)
- The *Read Before Installing or Using Compaq Pascal Version 5.7 for Tru64 UNIX* cover letter
- The *Compaq Pascal Software Product Description* (SPD)
- The *Compaq Tru64 UNIX Layered Products Compact Disc User's Guide*
- Other *Tru64 UNIX* layered-products media and documentation

All documentation on this CD is provided in PostScript (.ps) and ASCII (.txt) file types only.

### 1.1.2 Contents of the Documentation CD

The Documentation CD contains the following *Compaq Pascal* manuals in Bookreader format only:

- *Compaq Pascal User Manual for Tru64 UNIX*
- *Compaq Pascal Language Reference Manual*

For more information on using the Bookreader, see the *Compaq Tru64 UNIX Layered Products Compact Disc User's Guide*.

## 1.2 Installation Procedure Requirements

The installation of *Compaq Pascal*, including running the Installation Verification Procedure (IVP), takes approximately 10 to 15 minutes, depending on your system configuration.

## 1.3 Updating the Whatis Database

After installation of the *Compaq Pascal* documentation subset (DPOMANnnn), invoke the `catman(1)` program from the root account with the `-w` flag. For example:

```
# catman -w
```

### 1.3.1 Login Privileges Required

You must have superuser privileges to install the *Compaq Pascal* software and to register the license PAK.

### 1.3.2 Hardware Requirements

To install *Compaq Pascal*, you need the following hardware:

- Software distribution device  
Locate the CD-ROM drive for the CD-ROM software distribution media. The CD booklet or the documentation for the CD-ROM drive you are using explains how to load the CD-ROM media.
- Terminal  
You can use either a hardcopy or video terminal to communicate with the operating system and respond to prompts from the installation procedure.

See the *Compaq Pascal* Software Product Description (SPD) for additional hardware requirements.

### 1.3.3 Software Requirements

*Compaq Pascal* Version 5.7 requires *Tru64 UNIX* Version 4.0F (or higher). Future maintenance releases may require higher versions. See the *Read Before Installing or Using Compaq Pascal Version 5.7 for Tru64 UNIX* letter or the online release notes for information about the minimum version of the operating system required.

*Compaq Pascal* also requires that the following subsets be loaded on the system where you install *Compaq Pascal*:

- OSFBASE—the *Tru64 UNIX* Base System subset
- OSFCMPLRS—the Compiler Back End subset
- OSFPGMR—the Software Development Environment subset
- DFARTL—the *Compaq FORTRAN for Tru64 UNIX* Runtime Support

To install the *Compaq Pascal* reference pages (manual pages), the following *Tru64 UNIX* software subsets must be installed on the system where you install *Compaq Pascal*:

- OSFMANOS—the Admin/User online manual pages
- OSFMANOP—the Programming online manual pages
- OSFDCMT—the document preparation software

To check whether these subsets are loaded:

1. Log in to the system where you will install *Compaq Pascal*.
2. Enter the following command:

```
# setld -i | egrep 'OSFBASE|OSFCMPLRS|OSFPGMR|OSFMANOS|OSFMANOP|OSFDCMT|DFARTL'
```

Note that if you do not log in as superuser (login name *root*), you must enter the full path of the command. For example:

```
% /usr/sbin/setld -i | grep OSFBASE
```

Check the displayed rows for the name of the relevant subset and any related patches. The word “installed” appears in a row after the subset identifier when a subset is loaded. If the word “installed” does not appear (that is, if the second column in a row is blank), the subset or patch is not loaded. In this case, you must load the missing *Tru64 UNIX* software before installing *Compaq Pascal*.

### 1.3.4 Determining Which Subsets to Load

You must choose the *Compaq Pascal* subsets you want to load.

In the subset identifiers starting with DPO, the *nnn* represents the version number of *Compaq Pascal*.

The subsets have the following identifiers and titles:

- DPORTL*nnn* (title: *Compaq Pascal Vn.n* for Tru64 UNIX Runtime Support)

This subset contains the *Compaq Pascal* run-time libraries. This subset (or a higher version) is a prerequisite for the DPOBASE*nnn* subset. Always choose this subset if it appears in your menu and if you are also installing DPOBASE*nnn*. During the *Compaq Pascal* installation procedure, if you choose DPORTL*nnn*, it will not be installed if there is already a more recent version on your system. You must install this subset to link and run *Compaq Pascal* programs.

This subset installs files in the `/usr/lib/cmplrs/pctrl`, `/usr/lib`, `/usr/shlib`, and `/usr/lib/nls/msg/en_US.88591` directories.

- DPOBASE*nnn* (title: *Compaq Pascal Vn.n* for Tru64 UNIX Systems)

This is the primary subset for *Compaq Pascal* and depends on OTABASE*nnn* and DPORTL*nnn* subsets. You must install this subset to compile and link *Compaq Pascal* programs.

This subset installs its files in the `/usr/lib/cmplrs/pc`, `/usr/include`, and `/usr/bin` directories.

- **DPODOC $nnn$**  (title: *Compaq Pascal Vn.n Release Notes*)  
 This subset contains the online release notes for *Compaq Pascal* and a list of the files in the *Compaq Pascal* kit. You can choose to install this subset first, to view these files, before proceeding with the *Compaq Pascal* installation.  
 This subset installs its files in the `/usr/lib/cmplrs/pc` directory.
- **DPOMAN $nnn$**  (title: *Compaq Pascal Vn.n Man Pages*)  
 This subset contains all unformatted reference pages for the *Compaq Pascal* compiler. If disk space is a concern, you can omit installing this subset.  
 This subset installs its files in the `/usr/lib/cmplrs/pc` and `/usr/man/man1` directories.  
 You can load the *Compaq Pascal* reference pages subset only if the *Tru64 UNIX* reference pages subset is already loaded on your system. If users on the system where *Compaq Pascal* is being installed use reference pages that are `nfs` mounted from another system, load the *Compaq Pascal* reference pages on the other system rather than on the one where you are installing *Compaq Pascal*.  
 In this case, do not request the reference pages subset during the *Compaq Pascal* installation. After the installation is complete, you can log in to the system where the reference pages are installed and load only the *Compaq Pascal* reference page subset on that system. For information about loading specific subsets, see the `setld(8)` reference page.

### 1.3.5 Disk Space Requirements

Table 1–1 lists the disk space requirements for loading *Compaq Pascal* software subsets. These disk space requirements apply to the disks where you load the *Compaq Pascal* subsets. The disk space requirements are listed by directory for convenience if you are doing installations on systems where these directories are mount points for different disk partitions.

**Table 1–1 Compaq Pascal Subset Sizes (Disk Space Requirements)**

Subset Name	Directory	Kbytes Required
DPOBASE $nnn$	<code>/usr</code>	1
	<code>/usr/bin</code>	1
	<code>/usr/lib/cmplrs</code>	1

(continued on next page)

**Table 1–1 (Cont.) Compaq Pascal Subset Sizes (Disk Space Requirements)**

Subset Name	Directory	Kbytes Required
	/usr/lib/include	1
	/usr/lib/cmplrs/pc_nnn	6400
	<b>Total:</b>	<b>6404</b>
DPORTLnnn	/usr/lib	1
	/usr/lib/cmplrs	1
	/usr/shlib	1
	/usr/lib/nls/msg/en_US.88591	1
	/usr/lib/cmplrs/pcrtl_nnn	750
	<b>Total:</b>	<b>754</b>
DPODOCnnn	/usr/lib/cmplrs/pc_nnn	75
	<b>Total:</b>	<b>75</b>
DPOMANnnn	/usr/lib/cmplrs/pc_nnn	25
	/usr/share/man/man1	1
	<b>Total:</b>	<b>26</b>
	<b>Grand Total:</b>	<b>7259</b>

Using these disk space requirements, total the values for the subsets you will load in each directory.

Compare the space required for subsets with the free space currently on the disks where *Compaq Pascal* files will reside.

To check the current amount of free space for a directory path, log in to the system where you will install *Compaq Pascal*. You can check which directories are mounted and where they are by viewing the `/etc/fstab` file. For example:

```
# more /etc/fstab
/dev/rd0a:/:rw:1:1:ufs::
/dev/rd0g:/usr:rw:1:2:ufs::
/usr/staff/r1/leslie@bigsys:/usr/staff/r1/leslie:rw:0:0:nfs:bg:
/usr/man@bigsys:/usr/man:ro:0:0:nfs:bg:
```

This display indicates that `/usr` (mounted to `/dev/rd0g`) is the only mount point that affects where *Compaq Pascal* files will reside; the system has only one local disk drive and the `/usr/lib` and `/usr/lib/cmplrs` file systems reside in the `g` partition of the disk on that drive.

To check total space and free space for the directories where *Compaq Pascal* files will reside, enter the `df` command. Given the previous display of the `/etc/fstab` file, which shows that only `/usr` is a mount point, you need to check free space only in the `/usr` file system, as follows:

```
# df /usr
Filesystem      Total    kbytes    kbytes    %
node            kbytes    used      free      used  Mounted on
/dev/rd0g       122598   54447    55892    49%   /usr
```

This display indicates there are 55892 Kbytes free. This free space must accommodate the subset requirements listed in Table 1-1.

On systems where `/usr/lib` and `/usr/man` are mounted to different devices from `/usr`, enter the following command:

```
# df /usr/lib /usr/man
```

In this case, compare the space required for *Compaq Pascal* files in `/usr/lib` with the free space displayed in the first line of the `df` output list, and compare the space required for *Compaq Pascal* files in `/usr/man` with the free space displayed in the second line of that list.

### 1.3.5.1 Increasing Available Disk Space

The *Compaq Pascal* installation procedure creates some directories and loads files into subordinate directories, as listed in `/usr/lib/cmplrs/pc/filelist`.

If the `/usr/lib/cmplrs` directory does not exist, the *Compaq Pascal* installation procedure creates it. If this directory does exist, the installation procedure uses it. If you find that there is insufficient disk space for the *Compaq Pascal* subsets and if you know that there is additional space on other disks or disk partitions for your system, you can perform the following steps before installing *Compaq Pascal*:

1. Log in as superuser (login name `root`) to the system where you will install *Compaq Pascal*.
2. Create the directory `/usr/lib/cmplrs`, `/usr/lib/cmplrs/pc_nnn`, or both. (In these directory names, *nnn* is the *Compaq Pascal* version number).
3. Specify in the `/etc/fstab` file that one or more of the newly created directories are mount points to new disk partitions where there is additional space.
4. Enter the `mount -a` command so that the new mount points take effect.

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#### Note

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The pathname `/usr/lib/cmplrs/pc` is a symbolic link to the directory

## 1.4 Registering the License Product Authorization Key

*Compaq Pascal* includes support for the License Management Facility (LMF). A License Product Authorization Key (License PAK) must be registered in the License Database (LDB) in order to use *Compaq Pascal* on a newly licensed node. The License PAK may be shipped along with the kit if you ordered the license and media together; otherwise, it is shipped separately to a location based on your license order. The LMF name for *Compaq Pascal* on *Tru64 UNIX* is PASCAL-O.

To register a license under *Tru64 UNIX*:

1. Log in as superuser.
2. At the superuser prompt, enter the following command to edit an empty PAK template and enter all the information on your License PAK:

```
# lmf register
```

After you register your license, enter the following command to copy the license details from the LDB to the kernel cache:

```
# lmf reset
```

For complete information on using the License Management Facility, see the *Guide to Software Licensing* and the `lmf(8)` reference page.

## 1.5 Backing Up Your System Disk

Compaq recommends that you back up your system disk before installing *Compaq Pascal* or any software. Use the backup procedures established at your site. For information about backing up your system disk, see the *Tru64 UNIX* system documentation.

## 1.6 Stopping the Installation

To stop the installation procedure at any time, use Ctrl/C. However, files created up to that point are not deleted. You must then delete these files interactively. Chapter 2 lists the directories and files created during the *Compaq Pascal* installation.



## 1.7 Error Recovery and Software Problem Reporting

If you encounter a problem while using *Compaq Pascal*, Compaq recommends that you report the problem immediately. The following sections provide information on how to:

- Report *Compaq Pascal* software errors
- Recover from errors that occur during the installation procedure
- Report documentation errors

### 1.7.1 Reporting Compaq Pascal Software Errors

If an error occurs while *Compaq Pascal* is in use and you believe the error is caused by a problem with *Compaq Pascal*, take one of the following actions:

- If you have a Software Product Services Support Agreement, call your Customer Support Center (CSC). The CSC provides telephone support for high-level advisory and remedial assistance.
- If you have a Self-Maintenance Software Agreement, you can submit a Software Performance Report (SPR).
- If you purchased *Compaq Pascal* within the last 90 days and you think the problem is caused by a software error, you can submit an SPR.

To obtain information about purchasing a software agreement, please contact your local Compaq sales representative.

#### Software Product Support Agreement

If you have a Software Product Services Support Agreement, contact your Compaq Customer Support Center (CSC), either by telephone or by using the electronic means provided with your support agreement (such as DSNlink). The CSC provides telephone support for high-level advisory and remedial assistance. When you initially contact the CSC, please indicate the following:

- The name and the version number of the operating system (for example, *Tru64 UNIX Version 1.2*).
- The product name (*Compaq Pascal*) and the version number (for example, *Compaq Pascal Version 5.7*). You can use the following command to determine the *Compaq Pascal* version number:  

```
% what /usr/lib/cmplrs/pc/decpascal | grep Pascal
```
- The name and model number of your hardware system.
- A very brief description of the problem (one sentence if possible).

- The severity of the problem.

You can provide more details when you submit information electronically or when you speak on the phone to the appropriate *Compaq Pascal* support specialist. This includes the specific commands used to compile and link the program, the error messages displayed, and possibly including source program listings. Please attempt to narrow the cause of the problem to a specific module or lines of code.

CSC personnel may ask for additional information, such as listings of any command files, INCLUDE files, relevant data files, and so forth. If the program is longer than 50 lines, submit a copy of it electronically or provide machine-readable media.

### **Self-Maintenance Software Agreement**

If you have a Self-Maintenance Software Agreement, you can submit a Software Performance Report (SPR). You can also submit a SPR if you purchased *Compaq Pascal* within the last 90 days and you think the problem is caused by a software error, regardless of whether you have any type of software support agreement with Compaq.

When you submit an SPR, please take the following steps:

1. Describe as accurately as possible the circumstances and state of the system when the problem occurred. In the description, please provide:
  - The version number of *Compaq Pascal*.
  - The name and version number of the operating system being used.
  - A concise description of the problem with specific examples. Include any error messages displayed, the commands used to compile and link the program, and so on.
2. State the problem concisely.
3. Remember to include listings of any command files, INCLUDE files, relevant data files, and so forth.
4. Provide a listing of the program.
5. If the program is longer than 50 lines, submit a copy of it on machine-readable media. If necessary, also submit a copy of the program library used to build the application.

For information about copying a program library to machine-readable media, see the `tar(1)` reference page.
6. Report only one problem per SPR. This will facilitate a faster response.

7. Mail the SPR package to Compaq.

Experience shows that many SPRs do not contain enough information to duplicate or identify the problem. Concise, complete information helps Compaq give accurate and timely service to software problems.

## 1.7.2 Recovering from Errors that Occur During the Installation Procedure

If errors occur during the installation, the system displays failure messages. For example, if the installation of the `DPOBASE $nnn$`  subset fails due to insufficient disk space, the installation procedure displays the following message:

```
There is not enough space for subset DPOBASE $nnn$   
Compaq Pascal (DPOBASE $nnn$ ) will not be loaded.
```

Errors can occur during the installation if any of the following conditions exist:

- The operating system version is incorrect.
- The prerequisite software version is incorrect.
- The system parameter values for successful installation are insufficient.
- The product license has not been registered and loaded.

For descriptions of error messages generated by these conditions, see the *Tru64 UNIX* documentation on system messages, recovery procedures, and software installation. If any of these conditions exist, take the appropriate action described in the message. For information on system requirements for installing *Compaq Pascal*, see Section 1.3.3.



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## Installing Compaq Pascal

This chapter describes the *Compaq Pascal* installation procedure. Before you start the installation, read Chapter 1, which describes the general options and requirements for installing *Compaq Pascal*.

*Compaq Pascal* is installed from CD-ROM, either locally or into a server area.

The installation procedure loads *Compaq Pascal* files on a disk belonging to the system where you perform the installation. When *Compaq Pascal* is run, its executable images are mapped into memory on your system.

### 2.1 Using CD-ROM Consolidated Distribution Media for Local Installations

Start the installation procedure as follows:

1. Mount the media on the appropriate disk drive.
2. Log in as superuser (login name `root`) to the system where you will install *Compaq Pascal*.
3. Make sure you are at the root directory (`/`) by entering the following command:

```
# cd /
```

4. Specify the `/cdrom` directory to be the mount point for the distribution file system on the drive. If your drive is `rz1`, enter the following command:

```
# mount -r /dev/rz1c /cdrom
```

5. Enter a `setld` command that requests the load function (`-l` option) and identifies the directory in the mounted file system where *Compaq Pascal* subsets are located:

```
# setld -l /cdrom/DPO570/bin
```

## 2.1.1 Responding to Installation Procedure Prompts

This section explains the installation procedure prompts and displays. Examples in this section use generic version numbers, such as Vn.n or (in subset identifiers) *nnn*. During installation, the actual version numbers will appear on your screen.

### 2.1.1.1 Selecting Compaq Pascal Subsets

After you enter the `setld` command, the installation procedure displays the names of *Compaq Pascal* subsets and asks you to specify the subsets you want to load, as shown in the following example:

```
*** Enter Subset Selections ***
```

The subsets listed below are optional:

- 1) Compaq Pascal Vn.n Man Pages
- 2) Compaq Pascal Vn.n Release Notes
- 3) Compaq Pascal Vn.n for Tru64 UNIX
- 4) Compaq Pascal RTL Vn.n forTru64 UNIX
  
- 5) All of the Above
- 6) None of the Above
- 7) Exit without installing subsets

Enter your choice(s) or press Return to confirm previous selections.

Choices (for example, 1 2 4-6):

**In this example, you must choose subset numbers 1, 4, and 5 to run *Compaq Pascal* programs; otherwise, you will see a warning message. Note that you will also see a warning message if you choose subset 4 (RTL Vn.n for Tru64 UNIX) prior to installing the DFARTL*nnn* subset.**

To install only the online release notes, choose subset 2. This lets you read the release notes without installing *Compaq Pascal*.

If you specify more than one number at the prompt, separate each number with a space, not a comma. Typically, you enter the option to install all of the listed subsets (5 in the example shown above).

Next, the procedure lets you verify your choice. For example, if you enter 5 in response to the previous prompt, the following display appears:

You are installing the following subsets:  
Compaq Pascal Vn.n Man Pages  
Compaq Pascal Vn.n Release Notes  
Compaq Pascal Vn.n for Tru64 UNIX  
Compaq Pascal for Tru64 UNIX Runtime Support

Is this correct? (y/n):

If the displayed subsets are not the ones you intended to choose, enter n. In this case, the subset selection menu is again displayed, and you can correct your choice of optional subsets.

If the displayed subsets are the ones you want to load, enter y.

### 2.1.1.2 Monitoring Displays During the Subset Loading Process

The installation procedure loads and verifies the selected *Compaq Pascal* subsets.

The following example shows a display where all *Compaq Pascal* subsets are being loaded from CD-ROM:

```
Compaq Pascal RTL for Tru64 UNIX
  Copying from /cdrom/DPO570/bin (disk)
  Verifying

Compaq Pascal n.n Release Notes
  Copying from /cdrom/DPO570/bin (disk)
  Verifying

Compaq Pascal n.n for Tru64 UNIX
  Copying from /cdrom/DPO570/bin (disk)
  Verifying

Compaq Pascal n.n Man Pages
  Copying from /cdrom/DPO570/bin (disk)
  Verifying

OTABASEnnn, information: Shared library installed

DPODOCnnn, information: The release notes are in
  /usr/lib/cmplrs/pc/relnotes

DPOBASEnnn, information: You can run the Installation Verification
  Procedure using the following command from root:
  setld -v DPOBASEnnn

#
```

Chapter 3 explains how to run the Installation Verification Procedure (IVP) after installation, and how to delete old *Compaq Pascal* subsets before installing a new version of *Compaq Pascal*. Note that when you see the Verifying message during the subset installation, the installation procedure is checking to see that the files are copied correctly; it is not an IVP message.

During the installation, if you get errors from the `setld` utility, see the Diagnostics section of the `setld(8)` reference page for an explanation of the errors and the appropriate actions to take.

If the verification procedure fails, look in the `/usr/var/adm/fverify` file for information to help diagnose the problem.



---

## After Installing Compaq Pascal

This chapter explains what you need to do after the installation to make *Compaq Pascal* ready to use, and includes information about the *Compaq Pascal* run-time library.

### 3.1 Running the Installation Verification Procedure (IVP) Separately

After installing *Compaq Pascal*, you can run the Installation Verification Procedure (IVP) independently to verify that the software is available on your system. You might also want to run the IVP after a system failure to be sure that users can access *Compaq Pascal*.

The IVP verifies the installation by using the `fverify` command with the `-y` option (see the `fverify(8)` reference page). `DPOBASEnnn` compiles, loads, and runs a *Compaq Pascal* program, `OTABASEnnn` verifies that the run-time support library exists, and `DPORTLnnn` verifies that the run-time libraries exist.

To run the IVP after an installation, enter the following command:

```
# setld -v subset-name
```

In this command, *subset-name* can be any *Compaq Pascal* subset (for example, `DPOBASEnnn`, `DPODOCnnn`, and so on. For *nnn*, substitute the appropriate version number). For a sample listing of the *Compaq Pascal* IVP, see Appendix A.

### 3.2 Deleting Compaq Pascal from Your System

If you must remove a version of *Compaq Pascal* from your system, delete each subset that you previously installed.

To delete subsets:

1. Log in as superuser (login name `root`).

2. Make sure you are at the root directory (/) by entering the following command:

```
# cd /
```

3. Enter the following form of the `setld` command:

```
# setld -i | egrep 'DPO.*nnn'
```

In this command, *nnn* is the version number.

4. Look for the word “installed” in the listing produced. Then delete the installed subsets. For example:

```
# setld -d DPOBASEnnn DPODOCnnn DPOMANnnn
```

When you delete *Compaq Pascal*, the `/usr/lib/cmplrs/pc_nnn` directory is deleted and symbolic links are removed. If you have another version of *Compaq Pascal* installed, then you must use the `SELECT` option to re-establish the symbolic links for the remaining version of *Compaq Pascal* as follows:

```
# setld -c DPOBASEnnn SELECT
# setld -c DPODOCnnn SELECT
# setld -c DPOMANnnn SELECT
```

### 3.3 Run-Time Library Messages

The text for all messages issued by the *Compaq Pascal* run-time library is kept in a separate file, `/usr/lib/nls/msg/en_US.88591/libpas_msg.cat`. This file should be present on the system to run an application built with *Compaq Pascal*. If the file is not present and a *Compaq Pascal* application signals an error from the run-time library, you will see the error message number and a message saying that `libpas_msg.cat` is missing, but you will not see descriptive text about the error.

You can move the `libpas_msg.cat` file to any *Tru64 UNIX* system, even if that system has not been licensed for *Compaq Pascal*. *Compaq Pascal* uses the `nlspath` environment variable to find its run-time message catalog. If `nlspath` is not set, the default used is `/usr/lib/nls/msg/en_US.88591/libpas_msg.cat`.

If the *Compaq Pascal* run-time library cannot find its message catalog, it displays a message that includes the following:

```
pascal: message <number> not found;
        Check environment variable NLSPATH and protection of
        /usr/lib/nls/msg/en_US.88591/libpas_msg.cat
```

In this case, check to see if `libpas_msg.cat` exists and that users have access to it. Note that `libpas_msg.cat` is bundled with *Compaq Pascal*.

For more information on *nlspath*, see the *Tru64 UNIX* documentation or the `catopen(3)` reference page.



# A

---

## Sample Listings

This appendix provides listings of the following procedures:

- A *Compaq Pascal* installation using CD-ROM
- An Installation Verification Procedure (IVP) run after the installation

### A.1 Sample Listing of a Compaq Pascal Installation

```
# setld -l cdrom/DP0570/bin 
```

The subsets listed below are optional:

- 1) Compaq Compiled Code Support Library
- 2) Compaq Pascal 5.7 Man Pages
- 3) Compaq Pascal 5.7 Release Notes
- 4) Compaq Pascal 5.7 for Tru64 UNIX UNIX Systems
- 5) Compaq Pascal for Tru64 UNIX Runtime Support
- 6) All of the Above
- 7) Cancel selections and redisplay menus
- 8) Exit without installing any subsets

Enter your choices or press Return to confirm previous selections.

Choices (for example, 1 2 4-6):

You are installing the following optional subsets:

```
Compaq Compiled Code Support Library
Compaq Pascal 5.7 Man Pages
Compaq Pascal 5.7 Release Notes
Compaq Pascal 5.7 for Tru64 UNIX Systems
Compaq Pascal for Tru64 UNIX Runtime Support
```

Is this correct? (y/n):

```
DEC Compiled Code Support Library
  Copying from cdrom/DP0570/bin (disk)
  Verifying
```

```
DPOBASE570: warning: Be *sure* to install DPORTL before running
the IVP (setld -v) and trying to use Compaq Pascal.
```

```
DPOBASE570: warning: Be *sure* to install DFARTL before running
the IVP (setld -v) and trying to use Compaq Pascal.

Compaq Pascal 5.7 for Tru64 UNIX Systems
  Copying from cdrom/DPO570/bin (disk)
  Verifying

Compaq Pascal 5.7 Release Notes
  Copying from cdrom/DPO570/bin (disk)
  Verifying

Compaq Pascal 5.7 Man Pages
  Copying from cdrom/DPO570/bin (disk)
  Verifying

Compaq Pascal for Tru64 UNIX Runtime Support
  Copying from cdrom/DPO570/bin (disk)
  Verifying

OTABASE100, information: Shared library installed.

DPOBASE570, information: You can run the Installation Verification
Procedure using the following command from root:
    setld -v DPOBASE570

DPODOC570, information: The release notes are in
    /usr/lib/cmplrs/pc/relnotes
```

## A.2 Sample Listing of a Compaq Pascal Installation Verification Procedure

```
# setld -v DPOBASE570 Return

Compaq Pascal V5.7 for Tru64 UNIX (DPOBASE570)

DPOBASE570: Starting Installation Verification Procedure (IVP).
If this fails, please include the following when submitting a report:
  1) This subset name, which is DPOBASE570
  2) Output from: ls -l /tmp/DPOBASE570.ivptmp
  3) This setld session

IVP, information: Created scratch directory.
IVP, information: Compiling and linking.
IVP, information: Running.
** Successful Installation of Compaq Pascal V5.7 on 17-March-1999 at 19:39 **
IVP, information: Execution successful.
IVP, information: Cleaning up.
IVP, information: DPOBASE570 is properly installed.
```