

HP DECwindows Motif for OpenVMS Alpha

Installation Guide

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This manual provides step-by-step instructions for installing DECwindows Motif for OpenVMS Alpha Version 1.3-1.

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Operating System: HP OpenVMS Alpha Version 7.3-2

Software Version: HP DECwindows Motif for OpenVMS Alpha Version 1.3-1

Hewlett-Packard Company
Palo Alto, California

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Preface

Intended Audience

This manual is intended for anyone who plans to install the DECwindows Motif for OpenVMS Alpha Version 1.3-1 software.

Document Structure

This manual contains the following chapters and appendixes:

- Chapter 1 discusses how to prepare for installing DECwindows Motif software.
- Chapter 2 discusses how to install DECwindows Motif using the POLYCENTER Software Installation utility.
- Chapter 3 provides startup procedures. This chapter also includes a sample Installation Verification Procedure (IVP).
- Chapter 4 discusses customizing the environment, and reporting errors.
- Appendix A presents a sample DECwindows Motif installation using the POLYCENTER Software Installation utility on an OpenVMS Alpha Version 7.3-2 system.
- Appendix B shows how to obtain a list of the software components for the DECwindows Motif product using the POLYCENTER Software Installation utility.

Related Documents

In addition to this manual, the following documents are useful when installing the DECwindows Motif software:

- *HP DECwindows Motif for OpenVMS Alpha New Features*
- *HP DECwindows Motif for OpenVMS Alpha Release Notes*
- *Guide to the HP DECwindows Motif for OpenVMS Alpha CD-ROM*

- *Getting Started With the New Desktop*
- *Managing DECwindows Motif for OpenVMS Systems*
- *OpenVMS System Manager's Manual*
- *OpenVMS System Management Utilities Reference Manual*

For additional information about OpenVMS or DECwindows Motif products and services, visit the following web site:

<http://www.hp.com/go/openvms>

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Conventions

DECwindows Motif contains a graphical user interface that is derived from the Common Desktop Environment (CDE). This interface is referred to throughout this document as the New Desktop.

Unless otherwise specified, references to OpenVMS Clusters, VMScLusters, or clusters in this document are synonymous with HP OpenVMS Clusters.

All uses of DECwindows and DECwindows Motif refer to the HP DECwindows Motif for OpenVMS Alpha software; and all uses of X server and X display server refer to the HP DECwindows X11 Display Server. Additionally, all uses of DECwindows XUI (X User Interface) refer to the DECwindows product prior to DECwindows Motif Version 1.0.

The following conventions are also used in this manual:

Ctrl/ <i>x</i>	A sequence such as Ctrl/ <i>x</i> indicates that you must hold down the key labeled Ctrl while you press another key or a pointing device button.
Return	In examples, a key name enclosed in a box indicates that you press a key on the keyboard. (In text, a key name is not enclosed in a box.) In the HTML version of this document, this convention appears as brackets, rather than a box.
...	Horizontal ellipsis points in examples indicate one of the following possibilities: <ul style="list-style-type: none">• Additional optional arguments in a statement have been omitted.• The preceding item or items can be repeated one or more times.• Additional parameters, values, or other information can be entered.
.	Vertical ellipsis points indicate the omission of items from a code example or command format; the items are omitted because they are not important to the topic being discussed.
()	In command format descriptions, parentheses indicate that you must enclose the choices in parentheses if you choose more than one.
[]	In command format descriptions, brackets indicate optional elements. You can choose one, none, or all of the options. (Brackets are not optional, however, in the syntax of a directory name in an OpenVMS file specification or in the syntax of a substring specification in an assignment statement.)
	In command format descriptions, vertical bars separating items inside brackets indicate that you choose one, none, or more than one of the options.
{ }	In command format descriptions, braces surround a required choice of options; you must choose one of the options listed.
text style	This text style represents the introduction of a new term or the name of an argument, an attribute, or a reason. In the HTML version of this document, this convention appears as <i>italic text</i> .

<i>italic text</i>	Italic text indicates important information, complete titles of manuals, or variables. Variables include information that varies in system messages (Internal error <i>number</i>), in command lines (/PRODUCER= <i>name</i>), and in command parameters in text (where <i>dd</i> represents the predefined code for the device type).
UPPERCASE TEXT	Uppercase text indicates a command, the name of a routine, the name of a file, or the abbreviation for a system privilege.
Monospace type	Monospace type indicates code examples and interactive screen displays. In the C programming language, monospace type in text identifies the following elements: keywords, the names of independently compiled external functions and files, syntax summaries, and references to variables or identifiers introduced in an example.
-	A hyphen at the end of a command format description, command line, or code line indicates that the command or statement continues on the following line.
numbers	All numbers in text are assumed to be decimal unless otherwise noted. Nondecimal radices—binary, octal, or hexadecimal—are explicitly indicated.

1

Preparing to Install the Software

This chapter describes the preparation and requirements for installing DECwindows Motif for OpenVMS Alpha Version 1.3-1 software using the POLYCENTER Software Installation utility.

Note

HP strongly recommends that you read the release notes before proceeding with the installation. The DECwindows Motif product provides online release notes. See Section 2.2 for instructions on how to access this information.

This chapter presents information about the following topics:

- Section 1.1, License Registration
- Section 1.2, Supported Hardware
- Section 1.3, Prerequisites for the Installation Procedures
- Section 1.4, Required Operating System Software
- Section 1.5, OSF/Motif Release 1.1.3 and XUI Programming Support
- Section 1.6, Saving Customized Bookreader Files
- Section 1.7, Installation Procedure Requirements

1.1 License Registration

Before you install and run DECwindows Motif software on a newly licensed node or cluster, you must first register a License Product Authorization Key (License PAK) using the License Management Facility (LMF). The License PAK is provided along with the kit if you ordered the license and media together; otherwise, it is provided separately to a location based on your license order.

Preparing to Install the Software

1.1 License Registration

If you are installing DECwindows Motif software as an update on a node or cluster already licensed for this software, you have already completed the License PAK registration requirements.

You must register and load your license for DECwindows Motif before you run the Installation Verification Procedure (IVP) and use the software.

To register a license, log in to the system manager account (SYSTEM). Then choose one of the following options to register the license:

- Invoke the SYS\$UPDATE:VMSLICENSE.COM procedure. When the procedure prompts you for information, respond with data from your License PAK.
- At the DCL prompt, enter the LICENSE REGISTER command with the appropriate qualifiers that correspond to License PAK information.

If you plan to use DECwindows Motif software on more than one node in a VMScluster, load the license on the other nodes after you complete this installation.

For complete information about using LMF, see the *OpenVMS License Management Utility Manual*.

1.2 Supported Hardware

DECwindows Motif for OpenVMS Alpha Version 1.3-1 software can be installed on any supported Alpha processor. For a complete list of supported hardware, see the HP OpenVMS Alpha Version 7.3-2 and DECwindows Motif for OpenVMS Alpha Version 1.3-1 *Software Product Descriptions* (SPDs).

1.3 Prerequisites for the Installation Procedures

Before you can install and configure DECwindows Motif software, you must have the required version of the OpenVMS operating system software, sufficient memory, and a license. (Refer to Section 1.1 for information about registering a License Product Authorization Key [PAK].)

Use the POLYCENTER Software Installation utility to install your DECwindows Motif software according to the operating system information provided in Section 1.4.

Preparing to Install the Software
1.4 Required Operating System Software

1.4 Required Operating System Software

The DECwindows Motif for OpenVMS Alpha Version 1.3-1 software requires that the OpenVMS Alpha Version 7.3-2 operating system be installed with the DECwindows support options described in Table 1-1. OpenVMS Alpha Version 7.3-2 is the only operating system version that supports DECwindows Motif Version 1.3-1.

If your system is not running a supported version of OpenVMS before you attempt to install DECwindows Motif, the installation fails.

A minimum of 64 MB of memory is required; at least 128 MB of memory is highly recommended.

The OpenVMS operating system provides two subsets of components to support DECwindows Motif. To use DECwindows Motif software, your system must be running a version of the OpenVMS system that includes the following components, as described in Table 1-1.

Table 1-1 DECwindows Motif Support Options for OpenVMS

Option	Description
DECwindows Motif network transport and base system support	<p>This component is required to install DECwindows Motif and to run DECwindows Motif applications. During the installation of OpenVMS, you are prompted to specify whether you want to install this option.</p> <p>To determine whether this option was installed during the installation of OpenVMS, check for the existence of the following file:</p> <pre>SYS\$LIBRARY:DECW\$TRANSPORT_COMMON.EXE</pre> <p>See Section 4.2 for information on adding DECwindows base support files after OpenVMS has been installed.</p>

(continued on next page)

Preparing to Install the Software

1.4 Required Operating System Software

Table 1–1 (Cont.) DECwindows Motif Support Options for OpenVMS

Option	Description
DECwindows X11 Display Server, fonts, and device drivers	<p>This component is necessary to display DECwindows Motif applications or any other X Window applications on your system. During the installation of OpenVMS, you are prompted to specify whether you want to install this option.</p> <p>To determine whether this option was installed during the installation of OpenVMS, check for the existence of the following file:</p> <pre>SYSS\$SYSTEM:DECW\$SERVER_MAIN.EXE</pre> <p>If the <code>DECW\$SERVER_MAIN.EXE</code> file is not on your system, you cannot display DECwindows Motif or other X Window applications on your local system¹. The DECwindows Motif installation procedure asks whether you want to continue the installation without workstation support.</p> <p>See Section 4.2 for information on adding DECwindows device support files and 75- or 100-dpi font files after OpenVMS has been installed.</p>

¹If this component is not installed locally, note that you can run DECwindows Motif applications and redirect their display to a remote system that does have the DECwindows X11 Display Server installed.

Note

See the release notes and cover letter for the version of the OpenVMS operating system that you are running for more information about the DECwindows X11 Display Server.

1.5 OSF/Motif Release 1.1.3 and XUI Programming Support

The X Window System and OSF/Motif libraries that are provided with DECwindows Motif software are incompatible with those libraries provided with versions of DECwindows Motif prior to Version 1.2. Run-time compatibility is preserved, but the earlier OSF/Motif Release 1.1.3 and XUI programming environments are not compatible with the later OSF/MOTIF Release 1.2 programming environment.

Preparing to Install the Software 1.5 OSF/Motif Release 1.1.3 and XUI Programming Support

Programming in the XUI and OSF/Motif Release 1.1.3 environments that were provided in previous versions of DECwindows Motif is no longer supported in the DECwindows Motif product. However, the installation procedure gives you the option of saving the XUI and OSF/Motif Release 1.1.3 programming files that already exist on your system. If you choose to save these programming files, they are moved to subdirectories where you can access them for programming. Specifically, the installation creates a subdirectory called [.DECW\$113] in each of the directories listed in Table 1–2 and moves the previous files into the new [.DECW\$113] subdirectory.

Table 1–2 Directories for Previous XUI or OSF/Motif Programming Environments

Directory	Contents	New Location
DECW\$INCLUDE	C header files	SYS\$SYSROOT:[DECW\$INCLUDE.DECW\$113]
SYS\$SYSTEM	UIL compiler	SYS\$SYSROOT:[SYSEXE.DECW\$113]
SYS\$LIBRARY	Non-C language bindings	SYS\$SYSROOT:[SYSLIB.DECW\$113]

Note

The process for using the saved programming environment is documented in Section B.2 of the release notes.

1.6 Saving Customized Bookreader Files

The installation procedure replaces the following file with a new version:

```
SYS$SYSROOT:[DECW$BOOK]LIBRARY.DECW$BOOKSHELF
```

If you customized this file and want to save it, copy the file to another directory or rename the file prior to the installation of DECwindows Motif software so that it is not deleted.

To copy your customized file to another directory, create the directory and define a global symbol in the file DECW\$PRIVATE_APPS_SETUP.COM.

To create a Bookreader directory called SYS\$COMMON:[DECW\$BOOK_LOCAL], perform the following steps:

1. Create the directory and assign world read access as follows:

```
$ CREATE/DIRECTORY/PROTECTION=WORLD:R -  
_ $ SYS$COMMON:[DECW$BOOK_LOCAL]
```

Preparing to Install the Software

1.6 Saving Customized Bookreader Files

2. Copy the LIBRARY.DECW\$BOOKSHELF file to the new directory as follows:

```
$ COPY SYS$SYSROOT:[DECW$BOOK]LIBRARY.DECW$BOOKSHELF -  
_ $ SYS$COMMON:[DECW$BOOK_LOCAL]*/LOG
```

3. If the SYS\$MANAGER directory does not contain the DECW\$PRIVATE_APPS_SETUP.COM command file, copy the template file to a command file as follows:

```
$ COPY SYS$MANAGER:DECW$PRIVATE_APPS_SETUP.TEMPLATE -  
_ $ SYS$MANAGER:DECW$PRIVATE_APPS_SETUP.COM/LOG
```

4. Edit the DECW\$PRIVATE_APPS_SETUP.COM file and define the global symbol DECW\$BOOK to point to your Bookreader directory by adding the following line to the file:

```
$ DECW$BOOK == "SYS$COMMON:[DECW$BOOK_LOCAL]"
```

5. Restart DECwindows Motif using the following command if you performed step 4 after installing the product and after DECwindows had been started (for example, after a reboot):

```
$ @SYS$MANAGER:DECW$STARTUP RESTART
```

For more information about customizing your DECwindows Motif environment, see *Managing DECwindows Motif for OpenVMS Systems*.

1.7 Installation Procedure Requirements

This section discusses the requirements for installing the DECwindows Motif software using PCSI.

The installation procedure checks the following:

- Whether any other users are logged in to the system
- Whether you have the minimum required system account quotas and limits
- Whether you have the minimum required disk space
- Whether you have the minimum required system parameter values

Preparing to Install the Software 1.7 Installation Procedure Requirements

1.7.1 Process Account Quotas

The installation procedure requires that the installation account has the minimum quotas shown in Table 1–3.

Table 1–3 Process Quotas for the Installation Account

Quota Name	Value
ASTLM	250
BIOLM	150
BYTLM	64,000
DIOLM	150
ENQLM	2,000
FILLM	100

Use the OpenVMS AUTHORIZE utility to verify and to change process quotas for the installation account in the user authorization file (UAF). (Some sites may restrict the use of the AUTHORIZE utility to certain accounts or users.) For example, to change the BYTLM quota for the *account-name* installation account, enter the following commands:

```
$ SET DEFAULT SYS$SYSTEM
$ RUN AUTHORIZE
UAF> SHOW account-name
UAF> MODIFY account-name /BYTLM = 64000
UAF> SHOW account-name
UAF> EXIT
$ LOGOUT
```

After you change the quotas for the installation account, log out of the installation account and log in again for the new quotas to take effect. You can then proceed with the installation.

User account quotas are stored in the file SYS\$SYSTEM:SYSUAF.DAT. For more information about modifying account quotas, see the description of the AUTHORIZE utility in the *OpenVMS System Management Utilities Reference Manual*.

Preparing to Install the Software

1.7 Installation Procedure Requirements

1.7.2 Disk Space

Use Table 1–4 to determine the amount of free disk space that is required on the system disk to install DECwindows Motif components. However, because you can choose not to install all the components, your actual disk space requirement may be less.

To determine the number of free blocks on the system disk, enter the following command at the DCL prompt:

```
$ SHOW DEVICE SYS$SYSDEVICE
```

The installation procedure checks for free disk space on the system disk. If sufficient space is not available, the installation procedure provides the following options:

- Install fewer optional files.
- Terminate the installation, create more free disk space on the system disk, and restart the installation.
- Continue the installation and risk running out of disk space.

Note

If you run out of free disk space during the installation, the installation procedure fails.

Preparing to Install the Software 1.7 Installation Procedure Requirements

Table 1–4 Required Disk Space by Component (in Blocks)

Component/Subcomponent	Requirement	Subtotals	Totals
Installation overhead:	40,000 ¹	40,000	40,000
LBX support:	990	990	990
Client software:			
Client base kit	57,030	57,030	
Desktop support			
New Desktop	43,620		
DECwindows desktop	7,850		
Manual pages for New Desktop	2,810		
Desktop subtotal		54,280	
Programming environment			
C, C++	7,890		
FORTRAN	2,070		
Pascal	3,060		
New Desktop	150		
Programming subtotal		13,020	
Example programs			
Sound examples	1,550		
Programming examples	10,290		
New Desktop examples	1,250		
Examples subtotal		13,090	
Translated image support	28,330	28,330	
Client total			165,780
Total for all components:			206,740

¹Includes excess disk space allocation (dependent on disk cluster size), PCSI overhead, and log files. The value shown is for the combined installation of LBX and the client software.

1.7.3 System Parameters

Table 1–5 lists the minimum required system parameter values for the installation. The DECwindows Motif installation process now checks for these minimums automatically. If the minimums need adjusting, the installation process creates a NEWPARAMS.DAT file which AUTOGEN uses as input for its CLU\$PARAMS.DAT file. The CLU\$PARAMS.DAT file

Preparing to Install the Software

1.7 Installation Procedure Requirements

captures system parameter requirements from layered products that use the NEWPARAMS.DAT method of supplying their system parameter requirements to AUTOGEN. In most cases, this process eliminates the need to modify the MODPARAMS.DAT file.

If you are installing DECwindows Motif and OpenVMS simultaneously, the installation process delays requirements checking until the installation completes. In this case, AUTOGEN is run automatically (see Section 2.5). Otherwise, the check occurs within the installation procedure and you are instructed to run AUTOGEN before proceeding with the installation (see Section 2.3.2.1).

Depending on the kinds of programs and applications running at your site, you might need higher values for some settings. If you need higher settings, you should modify the MODPARAMS.DAT file before doing an AUTOGEN.

Table 1–5 Minimum Required System Parameter Values

System Parameter	Value
GBLSECTIONS	600 ¹
GBLPAGES	150,000 ¹
GBLPAGFIL	1,024
SWPOUTPGCNT	512
MAXBUF	8,192
CHANNELCNT	255
PROCSECTCNT	64
PQL_DPGFLQUOTA	—
PQL_MPGFLQUOTA	32,768
PQL_MASTLM	100
PQL_MBIOLM	100
PQL_MBYTLM	100,000
PQL_MDIOLM	100
PQL_MENQLM	300

¹If you have installed other software that uses global pages or global sections, you might need a higher minimum value. When you boot your system and DECwindows Motif starts, the values of free GBLPAGES and GBLSECTIONS are checked for your system. If you do not have sufficient values for GBLPAGES and GBLSECTIONS, the DECwindows Motif startup procedure prints a warning and provides a recommended value for these parameters.

(continued on next page)

Preparing to Install the Software 1.7 Installation Procedure Requirements

Table 1–5 (Cont.) Minimum Required System Parameter Values

System Parameter	Value
PQL_MFILLM	100
PQL_MPRCLM	10
PQL_MWSDEFAULT	1,024
PQL_MWSQUOTA	2,048
PQL_MWSEXTENT	8,192
CLISYMTBL	512
GH_RES_CODE	1,024
GH_RES_DATA	512
IMGREG_PAGES	2,000
WINDOW_SYSTEM	1
NPAGEDYN	1,998,848
PAGEDYN	600,000
WSMAX	12,000

Caution

If you do not ensure that your system has the necessary number of global pages and global sections for the installation, the DCL tables can become corrupted.

1.7.4 System Maintenance Procedures

This section explains how to use the System Generation utility (SYSGEN) and the AUTOGEN utility to prepare your system for the DECwindows Motif installation. The AUTOGEN utility uses system configuration data to automatically set system parameters.

Note

The DECwindows Motif installation and startup procedures automatically check for required system parameter values and pass the appropriate values to AUTOGEN via the NEWPARAMS.DAT/CLU\$PARAMS.DAT method described in Section 1.7.3. Therefore, in most cases you do not have to check and modify these values manually as described in the following sections. These sections provide procedures to use if you find

Preparing to Install the Software

1.7 Installation Procedure Requirements

it necessary to increase a system resource beyond the values normally specified by DECwindows Motif.

1.7.4.1 Checking a System Parameter Value with SYSGEN

To check the value of a system parameter, invoke the SYSGEN utility by entering the following command at the DCL prompt:

```
$ RUN SYS$SYSTEM:SYSGEN
SYSGEN> USE CURRENT
SYSGEN>
```

At the SYSGEN prompt, enter the SHOW command to display the value of a system parameter. The following command displays the value for the CLISYMTBL system parameter:

```
SYSGEN> SHOW CLISYMTBL
```

After checking all necessary parameters with the SHOW command, enter the EXIT command at the SYSGEN prompt to return to DCL level.

Remember, you only need to modify system parameters if the values given in Table 1–5 are inadequate for your particular installation.

1.7.4.2 Calculating the Number of Free Global Pages and Global Sections

To install and run DECwindows Motif software, you must have sufficient free global pages and global sections for the DECwindows Motif software and the file SYS\$LIBRARY:DCLTABLES.EXE. Table 1–6 gives the number of free global pages and global sections required by DECwindows Motif when the system is already running a copy of DECwindows Motif and on a system where DECwindows Motif is not running.

Table 1–6 Required Number of Contiguous Free Global Pages and Free Global Sections

Currently Running DECwindows Motif	
System Resource	Value
CONTIG_GBLPAGES	12,000
FREE_GBLSECTS	20

(continued on next page)

Preparing to Install the Software 1.7 Installation Procedure Requirements

Table 1–6 (Cont.) Required Number of Contiguous Free Global Pages and Free Global Sections

Not Currently Running DECwindows Motif	
System Resource	Value
CONTIG_GBLPAGES	92,000
FREE_GBLSECTS	260

DECwindows Motif attempts to guarantee that sufficient resources are available by placing both MIN_ and ADD_ parameters for global pages and global sections in its NEWPARAMS.DAT file. In addition, the DECwindows Motif startup command procedure checks these values and automatically invokes AUTOGEN if the current resources are insufficient. However, under certain system loads you may find it necessary to increase these resources by placing your own ADD_ entries in MODPARAMS.DAT. Any ADD_ values you place in MODPARAMS.DAT are in addition to the values DECwindows Motif places in its NEWPARAMS.DAT file.

First, determine how many free global pages and global sections exist on your system and how many are required to reinstall a new version of SYS\$LIBRARY:DCLTABLES.EXE. Then, if necessary, use the AUTOGEN utility to increase the values of the GBLPAGES and GBLSECTIONS system parameters.

To determine the number of contiguous free global pages and the number of free global sections, enter the WRITE command with the F\$GETSYI lexical function. If possible, use this command at a time of peak load for these two resources. The following example shows how to obtain this information at your terminal, which is the default for SYS\$OUTPUT:

```
$ WRITE SYS$OUTPUT F$GETSYI("CONTIG_GBLPAGES") Return
15848
$ WRITE SYS$OUTPUT F$GETSYI("FREE_GBLSECTS") Return
24
```

To determine the number of global pages required for SYS\$LIBRARY:DCLTABLES.EXE, enter the following DCL command:

```
$ DIR/SIZE SYS$LIBRARY:DCLTABLES.EXE
```

This command returns the size (in blocks) of the file SYS\$LIBRARY:DCLTABLES.EXE. As an approximation, use this figure as the number of global pages needed for the file.

Preparing to Install the Software

1.7 Installation Procedure Requirements

Compare your result to the values in Table 1–6 to determine whether the number of contiguous free global pages and the number of free global sections is sufficient. If your values are not sufficient to continue with the installation, then see Section 1.7.4.4, which describes the procedures for increasing these values using the AUTOGEN utility.

1.7.4.3 Setting the Size of the Page File

In order for DECwindows Motif to run with acceptable performance, the page file must be large enough to handle the virtual memory requirements of your system. The optimal size of the page file depends on many factors, such as the amount of physical memory on the system and the application work load.

As a general rule, the page file size should be at least 75,000 blocks. However, this size may be too small on systems where a large number of applications are run. On a heavily loaded system it may be possible to achieve substantial performance improvements by increasing the size of the page file by a factor of two or more.

Normally, you should run AUTOGEN with feedback and let AUTOGEN calculate the size of the page file based on the usage pattern on your system. To run AUTOGEN with feedback, enter the following DCL command:

```
$ @SYS$UPDATE:AUTOGEN SAVPARAMS REBOOT FEEDBACK
```

You can also increase the size of the page file by running the SYSGEN utility or by invoking the command procedure SYS\$UPDATE:SWAPFILES.COM.

For more information about setting the size of the page file and running AUTOGEN, see the section about the AUTOGEN utility in the *OpenVMS System Manager's Manual* and the AUTOGEN section in *OpenVMS System Management Utilities Reference Manual*. For more information about performance tuning in general, see the *OpenVMS Performance Management manual*.

1.7.4.4 Changing System Parameter Values Using the AUTOGEN Utility

If you find it necessary to adjust system parameters, use the AUTOGEN utility. AUTOGEN automatically adjusts values for parameters that are associated with the values you reset manually. To change system parameters with AUTOGEN, edit the file SYS\$SYSTEM:MODPARAMS.DAT.

To change a parameter value listed in this file, delete the current value associated with that parameter and enter the new value.

Preparing to Install the Software

1.7 Installation Procedure Requirements

To make incremental adjustments to parameters, such as global pages and global sections, add a line to the file and include both the name of the parameter (with the prefix ADD_) and its value. The following example increases the global pages value by 30,000:

```
ADD_GBLPAGES = 30000
```

The following list contains the system parameters that you may need to adjust incrementally.

```
SYSMWCNT
GBLSECTIONS
GBLPAGES
GBLPAGFIL
NPAGEDYN
PAGEDYN
```

After you enter all your changes, exit from the file and execute the AUTOGEN utility to recalculate your system parameters. Enter the following command to recalculate your system parameters and reboot the system:

```
$ @SYS$UPDATE:AUTOGEN GETDATA REBOOT
```

When you specify REBOOT, the AUTOGEN utility performs an automatic system shutdown and then reboots the system. Any users logged in to the system are immediately disconnected during the shutdown. The automatic reboot puts the new parameter values into effect.

For details about using AUTOGEN, see the section about the AUTOGEN utility in the *OpenVMS System Manager's Manual* and the AUTOGEN section in *OpenVMS System Management Utilities Reference Manual*.

1.7.5 Backing Up Your System Disk

HP recommends that you back up your system disk before you install any software. At the beginning of the installation, the installation procedure asks whether your system disk is backed up. Use the backup procedures that are established at your site. For details about performing a system disk backup, see the section on the Backup utility in the *OpenVMS System Management Utilities Reference Manual*.

Preparing to Install the Software

1.7 Installation Procedure Requirements

1.7.6 Notifying Other Users

Inform users on the system that you plan to install a product and that they must log out during the installation. To make sure that you are the only user logged in to the system, follow these steps:

1. Notify current users to log out. Enter the following command at the DCL prompt:

```
$ REPLY/ALL/BELL/SHUTDOWN "Log out for the installation of -  
_-$  
HP DECwindows Motif for OpenVMS Alpha, Version 1.3-1 please..."
```

2. Enter the following command at the DCL prompt to prevent nonprivileged users from logging in to the system:

```
$ SET LOGINS/INTERACTIVE=0
```

If possible, give users an estimated time when they can log in to the system again.

2

Using the POLYCENTER Software Installation Utility

This chapter describes how to install and configure DECwindows Motif software using the POLYCENTER Software Installation (PCSI) utility. The DECwindows Motif product supports POLYCENTER Software installations using the Digital Command Language (DCL) interface.

This chapter presents information about the following topics:

- Section 2.1, Accessing Help Information
- Section 2.2, Extracting and Printing the Product Release Notes
- Section 2.3, Installing the DECwindows Motif Software
- Section 2.4, Recovering from Errors

Using the POLYCENTER Software Installation Utility

Refer to the *OpenVMS System Manager's Manual* for complete details about installing and managing software products on your system. In addition to getting started information, the *OpenVMS System Manager's Manual* also provides information about several useful topics, such as:

- Removing installed products
- Reconfiguring installed products
- Copying software kits to new locations
- Retrieving product information

Refer to Section 1.4 for information about prerequisite software and licenses.

Caution

If you do not have a satisfactory backup copy of your system disk, do not attempt to install DECwindows Motif software. Back up the system disk (as described in the OpenVMS upgrade and installation supplement for your system) before you install DECwindows Motif software.

Before beginning the installation procedure, review Chapter 1 for information about installation preparations and requirements.

2.1 Accessing Help Information

Online help is available with the installation utility for all PRODUCT commands and qualifiers. For help on a specific command, enter the DCL command HELP followed by the command and product name.

Refer to the following documents for information about tasks and PRODUCT commands and qualifiers:

- *OpenVMS System Manager's Manual*
- *OpenVMS System Management Utilities Reference Manual*
- *OpenVMS DCL Dictionary*

Refer to the *OpenVMS System Manager's Manual* for complete information about responding to questions that the POLYCENTER Software Installation utility asks during product installation. For example, when you respond to questions, you can do the following:

- Enter a value and press the Return key to select options.

Using the POLYCENTER Software Installation Utility

2.1 Accessing Help Information

- Press the Return key to accept default values.
- Confirm your responses.

After you respond to questions by selecting options or accepting default values, the installation utility displays a summary of your answers.

Then a question is displayed asking whether you are satisfied with your answers and whether you want to continue with the installation. If you decide to change your responses, type No and press the Return key. You can then either reenter your responses or answer No and exit from the installation utility.

- Stop the installation by pressing Ctrl/Y. (Note that this option is not recommended.)

2.2 Extracting and Printing the Product Release Notes

Before you begin the installation procedure, you should read the product's release notes. To extract a copy of the *HP DECwindows Motif for OpenVMS Alpha Release Notes*, define PCSI\$SOURCE to point to the location (device name and directory) of the PCSI kit. Then enter the PRODUCT EXTRACT RELEASE_NOTES command followed by the product name, DWMOTIF, at the DCL prompt.

For example:

```
$ DEFINE PCSI$SOURCE DKA400:[PCSI_ALPHA_DWMOTIF131]
$ PRODUCT EXTRACT RELEASE_NOTES DWMOTIF
```

Once you extract the release notes to a file, you can print the file. Note that you do not need to install the product before you extract the release notes.

The *HP DECwindows Motif for OpenVMS Alpha Release Notes* are also available in HTML and ASCII (.TXT) formats in the documentation directory on the DECwindows Motif CD-ROM. Refer to the *Guide to the HP DECwindows Motif for OpenVMS Alpha CD-ROM* for information about accessing the release notes and other DECwindows Motif documentation.

Using the POLYCENTER Software Installation Utility

2.3 Installing the DECwindows Motif Software

2.3 Installing the DECwindows Motif Software

The sections that follow take you through the stages of installing your DECwindows Motif software using the POLYCENTER Software Installation utility.

Refer to Chapter 1 for information about account quotas, disk space, and system parameters.

2.3.1 Starting the Installation

To start the POLYCENTER Software Installation utility, enter the following command at the DCL prompt:

```
$ DEFINE PCSI$SOURCE device:[PCSI_ALPHA_DWMOTIF131]
```

where *device* is the name of the device on which the distribution CD-ROM is mounted or on which the installation kit is located.

Next, invoke the POLYCENTER Software Installation utility:

```
$ PRODUCT INSTALL DWMOTIF
```

Note

If you want to see the help text shown in this chapter, use the `/HELP` qualifier with the `PRODUCT INSTALL` command.

With the exception of a few message continuation lines, all of the dialog text shown in this chapter has been left-justified to allow longer lines to appear as displayed. Therefore, indentation present in the actual dialog is not shown in the example presented here.

2.3.2 The Installation Dialog

The installation dialog begins by displaying the name of the product which PCSI is installing. You are then asked to verify that you want to continue with the installation. The dialog continues with a display of product name, copyright, and Product Authorization Key (PAK) information.

```
The following product has been selected:
DEC AXPVMS DWMOTIF V1.3-1           Layered Product
Do you want to continue? [YES]
Configuration phase starting ...
```

You will be asked to choose options, if any, for each selected product and for any products that may be installed to satisfy software dependency requirements.

Using the POLYCENTER Software Installation Utility

2.3 Installing the DECwindows Motif Software

DEC AXPVMS DWMOTIF V1.3-1: DECwindows Motif

HP DECwindows Motif for OpenVMS Alpha, Version 1.3-1 is based on Version 11 Release 6.6 of the X Window System (X11R6.6) and OSF/Motif Version 1.2.5.

DECwindows Motif V1.3-1 provides both runtime and development support for the X Window System. Runtime and development support is provided for X11 Release 6.6 (X11R6.6) and OSF/Motif Version 1.2.5. For OSF/Motif Version 1.1.3, only runtime support is provided.

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This software product is sold by Hewlett-Packard Company.

This product uses the PAK: DW-MOTIF

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2.3.2.1 Verifying System Parameter Values

Note

If you are simultaneously installing or upgrading the OpenVMS operating system with DECwindows from the CD-ROM, the installation procedure will continue without checking your system values. It will check after the installation is complete (see Section 2.5).

The installation command procedure checks to ensure that adequate values are allocated for the system parameters (see Section 1.7.3 and Section 1.7.4). If your system values are sufficient, the installation procedure continues. If any of the values are insufficient, the procedure abandons the installation and instructs you to run AUTOGEN and then restart the installation. On OpenVMS Alpha systems, the procedure displays messages similar to the following:

Using the POLYCENTER Software Installation Utility

2.3 Installing the DECwindows Motif Software

Checking values of system parameters...

```
%DECW-W-BADVALUE, SYSGEN parameter GBLSECTIONS is 380, should be at least 600
%DECW-W-BADVALUE, Free GBLSECTIONS is 15, should be at least 260
%DECW-W-BADVALUE, SYSGEN parameter GBLPAGES is 120000, should be at least 150000
%DECW-W-BADVALUE, SYSGEN parameter NPAGEDYN is 1294336, should be at least 1998848
%DECW-W-BADVALUE, SYSGEN parameter CLISYMTBL is 265, should be at least 512
```

The installation procedure has determined that some system parameter values require modification to install the DECwindows Motif Version 1.3-1 for OpenVMS software.

Please type the following command to run AUTOGEN and reboot your system before restarting the DECwindows installation. This will set the system parameters to appropriate values for running DECwindows Motif Version 1.3-1.

```
@SYS$UPDATE:AUTOGEN GETDATA REBOOT CHECK_FEEDBACK
```

The DECwindows installation is being terminated.

Please run AUTOGEN and restart the installation.

```
%PCSI-E-S_OPFAIL, operation failed
%PCSIUI-E-ABORT, operation terminated due to an unrecoverable error condition
```

2.3.2.2 Running AUTOGEN

If the installation procedure has prompted you to run AUTOGEN to correct your system values, enter the following command:

```
$ @SYS$UPDATE:AUTOGEN GETDATA REBOOT CHECK_FEEDBACK
```

The system runs AUTOGEN and produces a log similar to the following example:

```
%AUTOGEN-I-BEGIN, GETDATA phase is beginning.
%AUTOGEN-I-NEWFILE, Previous contents of SYS$SYSTEM:CLU$PARAMS.DAT have
been copied to SYS$SYSTEM:CLU$PARAMS.OLD. You may wish to purge
SYS$SYSTEM:CLU$PARAMS.OLD.
%AUTOGEN-I-NEWFILE, A new version of SYS$SYSTEM:PARAMS.DAT has been created.
You may wish to purge this file.
%AUTOGEN-I-END, GETDATA phase has successfully completed.
%AUTOGEN-I-BEGIN, GENPARAMS phase is beginning.
%AUTOGEN-I-NEWFILE, A new version of SYS$MANAGER:VMSIMAGES.DAT has been created.
You may wish to purge this file.
%AUTOGEN-I-NEWFILE, A new version of SYS$SYSTEM:SETPARAMS.DAT has been created.
You may wish to purge this file.
%AUTOGEN-I-END, GENPARAMS phase has successfully completed.
%AUTOGEN-I-BEGIN, GENFILES phase is beginning.
%AUTOGEN-I-REPORT, AUTOGEN has produced some informational messages which
have been stored in the file SYS$SYSTEM:AGEN$PARAMS.REPORT. You may
wish to review the information in that file.
```


Using the POLYCENTER Software Installation Utility

2.3 Installing the DECwindows Motif Software

```
%AUTOGEN-I-END, GENFILES phase has successfully completed.  
%AUTOGEN-I-BEGIN, SETPARAMS phase is beginning.  
%AUTOGEN-I-SYSGEN, parameters modified  
%AUTOGEN-I-END, SETPARAMS phase has successfully completed.  
%AUTOGEN-I-BEGIN, REBOOT phase is beginning.
```

The system is shutting down to allow the system to boot with the generated site-specific parameters and installed images.

The system will automatically reboot after the shutdown and the upgrade will be complete.

```
SHUTDOWN -- Perform an Orderly System Shutdown  
           on node MYNODE
```

You can now restart the installation procedure (see Section 2.3.1).

2.3.2.3 Saving the Programming Environment

The installation procedure checks whether the OSF/Motif Release 1.1.3 programming environment exists on your system. If it is present, the installation procedure displays the following information and asks whether you want to save the OSF/Motif Release 1.1.3 programming environment:

The DECwindows Motif programming environment was installed with a previous version of this kit. This environment is incompatible with the OSF/Motif Release 1.2 environment provided with DECwindows Motif Version V1.3-1. The XUI programming environment is also not included in DECwindows Motif Version 1.3-1.

If you intend to continue developing programs for XUI or OSF/Motif Release 1.1.3, then save this environment. Please refer to the installation guide for more details and information on accessing these files in their new location.

If you do not choose to save the XUI and OSF/Motif Release 1.1.3 programming environment, those files will be removed from the system disk.

Save the OSF/Motif Release 1.1.3 and XUI programming environment?

If you answer Yes and press the Return key to save the OSF/Motif Release 1.1.3 and XUI programming environment, a subdirectory called [.DECW\$113] is created. The files that support that programming environment are moved to the [.DECW\$113] subdirectory.

If you answer No and press the Return key, the files are deleted.

Refer to Section 1.5 for information about accessing files related to the OSF/Motif Release 1.1.3 programming environment.

Using the POLYCENTER Software Installation Utility

2.3 Installing the DECwindows Motif Software

Note that this portion of the installation does not occur if you are simultaneously installing or upgrading the OpenVMS operating system with DECwindows.

2.3.2.4 Default Installation

Next, the dialog asks if you want the default installation. On systems with no previous DECwindows Motif installation, the installation procedure installs all options that apply to your hardware platform. On systems with a previous DECwindows Motif installation, the installation procedure installs all options selected during the previous installation. Any options not present in the installed version are installed according to the defaults for those options in Version 1.3-1.

Do you want the defaults for all options? [YES]

The remainder of this chapter assumes that you answer No to this question.

2.3.2.5 LBX Proxy Installation

Following the server installation, the dialog asks if you want to install the Low-Bandwidth X (LBX) proxy option.

The LBX proxy reduces the overall network bandwidth required for client-to-server communications. The LBX proxy can be installed as a standalone option or in conjunction with the DECwindows Motif client software.

Install Low Bandwidth X (LBX) Support [YES]

See the *HP DECwindows Motif for OpenVMS Alpha New Features* manual for more information about the LBX feature.

2.3.2.6 Selecting Installation of Client Software

Next, the installation procedure asks if you want to install the client software:

Install the DECwindows Motif Version 1.3-1 client software? [YES]

Answer Yes if you intend to run any programs requiring a DECwindows display, either on this system or on any remote system.

If you answer No, skip to Section 2.3.2.10.

If you answer Yes, the dialog asks if you want the default client installation:

Do you want the defaults for all suboptions? [YES]

Answer Yes if you want to take all the defaults for the client installation. If you answer Yes, skip to Section 2.3.2.10. If you answer No, proceed to Section 2.3.2.7.

Using the POLYCENTER Software Installation Utility

2.3 Installing the DECwindows Motif Software

2.3.2.7 Asking About Selecting a Desktop

The installation procedure displays information about the New Desktop and traditional DECwindows desktop. You can elect to install one of the desktops or both desktops. If you elect to install the New Desktop, the dialog asks whether the New Desktop should be the default desktop.

The New Desktop is a graphical user interface that is derived from the Common Desktop Environment (CDE). It offers the following features not available with the traditional DECwindows desktop:

- o Multiple workspaces for greater flexibility in managing windows on the screen.
- o An icon-based File Manager to make it easier to manipulate files from the graphical user interface.
- o Enhanced support for the drag-and-drop feature, which is fully supported in the new File Manager and Application Manager applications.
- o New Image Viewer and Icon Editor applications.

Both the New Desktop and the DECwindows desktop provide the same underlying X and Motif libraries and the same DECterm, Bookreader, Mail, and Calendar applications.

Install New Desktop [YES]

The manual pages provide online help text for New Desktop functions. If installed they can be viewed using the man page viewer from the Application Manager.

Install Manual (reference) pages for the New Desktop [YES]

If the New Desktop is the default, the new login box will be used and the user has the option at login to use either the New or the traditional desktop.

If the New Desktop is not the default, the traditional login box will be used and only the traditional desktop will be available.

You can change the default desktop by editing the file [SYSMGR]DECW\$DEFAULT_DESKTOP.COM and restarting DECwindows.

Make the New Desktop the default desktop [YES]

The traditional DECwindows Desktop is that provided since Version 1.2 of DECwindows. If both new and traditional desktops are installed the user can select which to run when logging in.

Install traditional DECwindows Desktop [YES]

See Section 3.4 for instructions about how to change the choice of desktop after the installation has completed.

Using the POLYCENTER Software Installation Utility

2.3 Installing the DECwindows Motif Software

2.3.2.8 Programming Language Support Options

Next, the dialog asks you which programming languages you want to install and whether you want to install the programming examples.

The installation procedure uses the following dialog:

Headers and related files to support programs in C that will use the DECwindows libraries.

Programming Support for the C Language [YES]

Include files to support programs in Pascal that will use the DECwindows libraries.

Programming Support for the Pascal Language [YES]

Include files to support programs in FORTRAN that will use the DECwindows libraries.

Programming Support for the FORTRAN Language [YES]

Headers and related files to support programs in C that will use the New Desktop widgets.

Programming Support for the New Desktop [YES]

Examples of programming to use the various libraries.

Programming examples [YES]

Do you want all the defaults for the subitems? [YES] no

Sample sound files that can be used with DECSound.

Sound example files [YES]

Examples, in various programming languages, of using the DECwindows and standard widgets and libraries.

Programming examples for DECwindows [YES]

Examples, in C, of using the new widgets provided with the New Desktop.

Programming examples for the New Desktop [YES]

Using the POLYCENTER Software Installation Utility

2.3 Installing the DECwindows Motif Software

2.3.2.9 Translated Image Support

The dialog now prompts you to install Translated Image Support (TIS), which enables VAX programs to work in the Alpha environment. Note that TIS support is only available for the traditional DECwindows desktop environment.

Translated image support allows programs translated from the VAX environment to work in the Alpha environment with the DECwindows libraries. Translated image support is not available for the New Desktop.

Translated Image Support [YES]

2.3.2.10 Language Variants Notice

The dialog now displays a warning about the need to update any language variants. You should not install DECwindows Motif Version 1.3-1 unless you will also install DECwindows Motif Version 1.3-1 language variants for all the languages that you want to use.

If a Local Language Variant is installed, refer to the Installation Guide.

If you have a language variant of DECwindows Motif installed, then you must upgrade to the version for DECwindows Motif Version 1.3-1 after completing this installation and before rebooting the system. A failure to do so could prevent DECwindows from starting.

If there is no local language variant upgrade available for DECwindows Motif Version 1.3-1, then you should remove the local language variant before installing DECwindows Motif Version 1.3-1.

Do you want to continue? [YES]

2.3.2.11 Reviewing the Installation Options

The dialog gives you a chance to review the options you have selected during the installation dialog.

Do you want to review the options? [NO] y

DEC AXPVMS DWMOTIF V1.3-1: DECwindows Motif
DEC AXPVMS VMS V7.3-2 [Installed]

Using the POLYCENTER Software Installation Utility

2.3 Installing the DECwindows Motif Software

```
Install Low Bandwidth X (LBX) Support: YES
Install the DECwindows Motif V1.3-1 client software: YES
Install New Desktop: YES
Install Manual (reference) pages for the New Desktop: YES
Make the New Desktop the default desktop: YES
Install traditional DECwindows Desktop: YES
Programming Support for the C Language: YES
Programming Support for the Pascal Language: YES
Programming Support for the FORTRAN Language: YES
Programming Support for the New Desktop: YES
Programming examples: YES
Sound example files: YES
Programming examples for DECwindows: YES
Programming examples for the New Desktop: YES
Translated Image Support: YES
```

Are you satisfied with these options? [YES]

2.3.2.12 Execution Dialog

During the execution phase, the installation utility begins by displaying the names of all products it will install or remove. This is followed by an indication of the procedure's progress.

Note

During the execution phase, a check is made for DECwindows Motif support files. If these files are not available, the dialog may ask if you want to continue. See Section 2.3.2.13 for more information.

Execution phase starting ...

```
The following product will be installed to destination:
  DEC AXPVMS DWMOTIF V1.3-1          DISK$ALPHASYS:[VMS$COMMON.]
```

```
Portion done: 0%
...10%
...20%
...30%
...40%
...50%
...60%
...70%
...80%
...90%
```

Using the POLYCENTER Software Installation Utility

2.3 Installing the DECwindows Motif Software

2.3.2.13 Verifying DECwindows Motif Support Files

The installation procedure verifies that DECwindows Motif applications and run-time support files are installed on the operating system (for example, transport and font files, which are required for running DECwindows Motif software).

```
**** DECwindows Motif application and run-time support files DETECTED ****
```

On OpenVMS Alpha systems, the files are always installed.

Next, the installation procedure checks for the presence of support files that are needed to use the system as a workstation or as a workstation boot server. If the support files are installed, the following message is displayed:

```
**** DECwindows device support files DETECTED ****
```

If the files are not installed, users are warned with the following message that their systems cannot be a workstation or a workstation boot server:

```
The DECwindows device support files for using this machine as a workstation  
or as a boot node for workstations have not been installed.
```

You can use the POLYCENTER Software Installation utility to change the options selected when the OpenVMS Alpha software was installed. See the POLYCENTER Software Installation Utility User's Guide for more information. To add the support files and the 75DPI and/or the 100DPI font files using the DECwindows save sets which are shipped with the OpenVMS kit, use the PRODUCT RECONFIGURE command as follows:

```
$ PRODUCT RECONFIGURE VMS
```

You should add the "Support for DECwindows" subclass in the Utilities class.

The installation procedure then asks the following question:

```
Do you wish to continue with this installation without the workstation support?
```

If you answer No (default) and press the Return key, the installation is stopped. See Section 4.2 for information on adding the necessary support files. Once you install the necessary support files, restart the installation procedure.

If you answer Yes and press the Return key, the installation continues.

Note that this portion of the installation does not occur if you are simultaneously installing or upgrading the OpenVMS operating system with DECwindows.

Using the POLYCENTER Software Installation Utility

2.3 Installing the DECwindows Motif Software

2.3.2.14 Reviewing Final Installation Notes

If the installation is successful, the dialog displays a list of all products installed and removed. Finally, the procedure displays additional installation notes for the DECwindows Motif product.

...100%

The following product has been installed:

DEC AXPVMS DWMOTIF V1.3-1 Layered Product

DEC AXPVMS DWMOTIF V1.3-1: DECwindows Motif

System reboot is required.

If using a language variant, reboot after upgrade of language variant.

A system reboot is required to install the new DECwindows Motif images. If this is a new installation, you should execute AUTOGEN using the following command:

```
$ @SYS$UPDATE:AUTOGEN GETDATA REBOOT CHECK_FEEDBACK
```

This command adjusts your system parameters and reboots the system.

If you wish to use DECwindows with any language other than English, install the appropriate DECwindows Motif Version 1.3-1 language variant product before using AUTOGEN or rebooting the system.

Installation Verification Procedure can be run after reboot.

Run the Installation Verification Procedure (IVP) after the installation is completed and the system is rebooted. The IVP is located in the following directory: SYS\$TEST:DECW\$IVP.COM.

2.4 Recovering from Errors

An error during installation can occur if one or more of the following conditions exists:

- The operating system version is incorrect.
- The prerequisite software version is incorrect.
- Quotas necessary for successful installation are inadequate.
- Process quotas required by the installation utility are inadequate.
- The OpenVMS Help library is currently in use.

For descriptions of the error messages generated by these conditions, see the documents listed in the *Associated Documents* section in the Preface. These documents may help you diagnose errors and decide what corrective actions to take.

Using the POLYCENTER Software Installation Utility 2.4 Recovering from Errors

If the installation procedure fails for any reason, the POLYCENTER Software Installation utility displays a message similar to the following:

```
%PCSI-I-INSFAIL, The installation of DECwindows Motif Version 1.3-1 for  
OpenVMS has failed.
```

If the installation fails, fix the problem and restart the installation procedure.

2.5 Adjusting Parameters After Installation

If you are simultaneously installing or upgrading the OpenVMS operating system with DECwindows from the CD-ROM, the installation procedure checks the system parameters at this point (see Section 1.7.3 and Section 1.7.4).

Note

You will not see this message if this is a new installation of DECwindows.

When DECwindows Motif attempts to start after a successful installation, it may display messages similar to the following:

```
%DECW-W-BADVALUE, SYSGEN parameter GBLPAGES is 120000, should be at least 150000  
%DECW-W-BADVALUE, Free GBLPAGES is 75040 should be at least 92000  
%DECW-W-BADVALUE, SYSGEN parameter CLISYMTBL is 256, should be at least 512  
Some SYSGEN parameters must be reset for DECwindows to start. If you type  
YES, AUTOGEN will change these parameters and reboot your system. If you type  
NO, AUTOGEN will not be run or cause a reboot but DECwindows will not start.  
Do you want the system to run AUTOGEN for you [YES]
```

At this point, press RETURN. The system will run AUTOGEN, adjust your system parameters, reboot the system and display the DECwindows login.

After Installing the Software

This chapter discusses the tasks that you need to perform after the DECwindows Motif installation is completed:

- Section 3.1, Starting the DECwindows Motif Software
- Section 3.2, Running the IVP
- Section 3.3, Choosing an Alternate Console
- Section 3.4, Selecting the Desktop

3.1 Starting the DECwindows Motif Software

The DECwindows startup procedure runs automatically when the system reboots. Either the New Desktop login dialog box or the DECwindows desktop Start Session dialog box is displayed, depending on the value of the `DECW$START_NEW_DESKTOP` global symbol. (See Section 3.4 for more information.)

If the `DW-MOTIF` license that is installed on your system is not valid, appropriate messages display on your console terminal and DECwindows Motif is not automatically started. If this situation occurs, log in to the system, install the valid license, and start your DECwindows Motif software. For complete information on installing licenses using LMF, see the *OpenVMS License Management Utility Manual*. For information on starting DECwindows, see the chapter entitled "Starting DECwindows Motif" in *Managing DECwindows Motif for OpenVMS Systems*.

3.2 Running the IVP

Run the Installation Verification Procedure (IVP), `SYS$TEST:DECW$IVP.COM`, after you install and start the DECwindows Motif product. This procedure contains six tests, which verify that the software installation is complete and accurate.

After Installing the Software

3.2 Running the IVP

3.2.1 Starting the Procedure

To start the IVP procedure, invoke the `SYS$TEST:DECW$IVP` command procedure. The dialog begins with a brief introduction.

```
$ @SYS$TEST:DECW$IVP
```

```
Copyright 2003 Hewlett-Packard Development Company, L.P.
```

```
HP DECwindows Motif for OpenVMS Alpha Installation Verification Procedure (IVP)
```

```
This IVP is intended to test some of the functionality of DECwindows Motif  
and to provide a quick method of verifying the installation.
```

Note

If you are invoking the IVP from a LAT Xterminal using LAT software, enter the following command first:

```
$ SET DISPLAY/CREATE/NODE=LAT_#####/TRANSPORT=LAT
```

Substitute your actual LAT terminal number for *#####*.

Enter the default at the `_Display:` prompt.

3.2.2 Display-Oriented Tests

Next, the IVP procedure attempts to run two display-oriented tests. Whether these tests are run and how they are run depends on your hardware and on the availability of the test images.

- If the test images exist and you are invoking the tests from a workstation, you are asked where the display-oriented tests should display. Your current workstation is usually the default display. The default display is usually taken from the value of the `DECW$DISPLAY` logical associated with the process running the IVP. The logical can point to either a local or remote display server.
- If the test images exist and you are not using a workstation, the procedure indicates that you need to enter a node name at the `_Display:` prompt. In this case, the `DECW$DISPLAY` logical is not defined, therefore there is no default display. For example, if you use the `SET HOST` command to access a system and do not define the `DECW$DISPLAY` logical, the IVP does not know if you are on a workstation. In this case, you enter the name of the node where you wish the display to occur.
- If the IVP does not find the images, a message displays to inform you that the tests will not be run.

After Installing the Software

3.2 Running the IVP

Press Ctrl/Z at the prompt if you do not want to run the display-oriented tests.

The following example shows the display test dialog on a workstation system. The display device `_WSA150` could be either a local display or a remote display.

To skip the display-oriented tests, press Ctrl/Z at the following prompt.

```
_Display:[_WSA150:]:
%DECW-I-IVP, The IVP will display on WSA150:
%DECW-I-IVP, Running DECW$EXAMPLES:ICO.EXE for up to a minute.
%DECW-I-IVP, Press Ctrl/Y to interrupt test.
%DCL-S-SPAWNED, process DECW$IVP_ICO spawned
%DECW-I-IVP, Running SYS$SYSTEM:DECW$CLOCK for up to a minute.
%DECW-I-IVP, Press Ctrl/Y to interrupt test.
%DCL-S-SPAWNED, process DECW$IVP_CLOCK spawned
```

The following partial example shows the test being run on a non-workstation system.

This machine is not a workstation. Please provide the node name of a workstation on which to display the IVP tests. You must be sure that this account and node have security access to the display node, or the IVP will fail.

To skip the display-oriented tests, press Ctrl/Z at the following prompt.

```
_Display []: NODE33
%DECW-I-IVP, The IVP will display on NODE33::0.0
```

The remainder of the dialog is identical to the workstation example.

3.2.3 LBX IVP Tests

Next, if the display-oriented tests were selected and the required images are available, the procedure attempts to run the LBX proxy tests. The dialog's display of the test results depends on whether a display name or node name was entered in the previous dialog section, if a display name was entered whether the display is local or remote, and, if a local display, whether the display has been properly configured to support the LBX test. The following list describes the IVP's actions in each of several possible cases.

- If the display entered in the first part of the IVP dialog is a local display and the display server has been configured to support the LBX and SECURITY features and the IVP process has the required privileges, the IVP displays the following messages.

After Installing the Software

3.2 Running the IVP

```
%DECW-I-IVP, LBX Proxy tests, tests will execute through a proxy
%DECW-I-IVP, Running DECW$EXAMPLES:ICO.EXE for up to a minute.
%DECW-I-IVP, Press Ctrl/Y to interrupt test.
%DCL-S-SPAWNED, process DECW$IIVP_LBX spawned
Using port number '50'
%DCL-S-SPAWNED, process DECW$IIVP_ICO spawned
%DECW-I-IVP, End of LBX Proxy tests
```

- If the display entered in the first part of the dialog is a remote display, the procedure is unable to determine if the display server supports the LBX and SECURITY features. The dialog issues a message warning you that the tests will fail if the remote server is not properly configured. The following example shows the LBX portion of the IVP after a remote display has been selected and the process running the IVP has the required privileges. If the remote server is properly configured, the remainder of the LBX portion of the dialog is identical to the first case in this list. If the remote server is not properly configured, the LBX test (and the IVP) will fail.

The LBX tests can only be executed if the display server has been configured to support the LBX and SECURITY extensions and this account has permission to generate cookies. Normally, remote servers will not give that permission and the LBX tests cannot be executed.

Answer "NO" at the following prompt to skip the LBX tests.

```
Execute LBX test? YES
```

- If the display entered in the first part of the IVP dialog is a local display and the display server has been configured to support the LBX and SECURITY features but the process running the IVP does not have the required privileges, the IVP displays the following message.

```
%DECW-I-IVP, No privilege to execute LBX part of test. Proxy test skipped.
```

- If the display entered in the first part of the IVP dialog is a local display and the display server has not been configured to support the LBX feature, the IVP displays the following message.

```
%DECW-I-IVP, Server does not support LBX extension. Proxy test skipped.
```

- If the display entered in the first part of the IVP dialog is a local display and the display server has not been configured to support the SECURITY feature, the IVP displays the following message.

```
%DECW-I-IVP, Server does not support SECURITY extension. Proxy test skipped.
```

After Installing the Software

3.2 Running the IVP

- If a node name is entered in the first part of IVP dialog instead of a display name, the IVP displays the following message.

```
%DECW-I-IVP, LBX Proxy tests need a display device. Proxy test skipped.
```

3.2.4 Nondisplay-Oriented Tests

Finally, the IVP runs two nondisplay-oriented tests.

- The first of these tests invokes the Motif UIL compiler. If you did not install programming support, the IVP informs you that this test will not be run because the Motif UIL image does not exist. If this test is run, you are notified of its completion status.
- The last test converts a text file to DDIF format and then converts it back to text, comparing the original text file with the result. If the files match, the test is successful. You are notified of its completion status.

The following example shows the IVP output for the final two tests.

```
%DECW-I-IVP, Invoking the UIL Motif compiler...
%DECW-S-IVP, The UIL Motif compiler test completed successfully.
%DECW-I-IVP, Beginning CONVERT/DOCUMENT IVP...
%DECW-S-IVP, CONVERT/DOCUMENT IVP passed.
%DECW-S-IVP, The IVP has completed.
$
```

3.3 Choosing an Alternate Console

The DECwindows Motif software allows you to boot all configurations from the main console. You can then toggle between displaying and not displaying the operator window by pressing Ctrl/F2. The main console is always a workstation screen.

If you are logged in to the main console (workstation screen), you must log out before DECwindows will start. Issue the following command from the main console:

```
$ @SYS$MANAGER:DECW$STARTUP
```

Once the command procedure completes, log out of the main console. Otherwise the server will not start and a login box will not appear.

For an alternative console, you can use a terminal connected to the workstation by means of a terminal port.

If you boot from the main console, the alternative console is connected when you invoke the DECwindows Motif startup command procedure.

After Installing the Software

3.3 Choosing an Alternate Console

If you boot the system from an alternative console, you cannot start the Console Window application. This application is described in the release notes.

3.4 Selecting the Desktop

DECwindows Motif provides a choice of two desktops: the New Desktop, which is derived from the Common Desktop Environment (CDE), and the traditional DECwindows desktop.

During the installation, if you choose to install both the New Desktop and the DECwindows desktop, you are asked which desktop you wish to be the default desktop.

To select the other desktop as the default desktop, perform the following steps.

1. If the file `SYSS$MANAGER:DECW$PRIVATE_APPS_SETUP.COM` does not exist, copy it from `DECW$PRIVATE_APPS_SETUP.TEMPLATE` (or create it if an earlier version of DECwindows Motif has not been installed on your system). For example:

```
$ COPY SYSS$MANAGER:DECW$PRIVATE_APPS_SETUP.TEMPLATE -
_ $ SYSS$COMMON:[SYSMGR]DECW$PRIVATE_APPS_SETUP.COM
```

2. Edit `SYSS$MANAGER:DECW$PRIVATE_APPS_SETUP.COM` and add a symbol definition for `DECW$START_NEW_DESKTOP`. If you wish the New Desktop as the default enter the following global symbol definition:

```
$ DECW$START_NEW_DESKTOP == "TRUE"
```

If you want the DECwindows desktop as the default, enter the following global symbol definition:

```
$ DECW$START_NEW_DESKTOP == "FALSE"
```

3. Restart DECwindows using the following command:

```
$ @SYSS$MANAGER:DECW$STARTUP RESTART
```


4

Managing DECwindows Motif Software

After you install the HP DECwindows Motif for OpenVMS Alpha product, you can tune your system to enhance performance, decrease the use of some system resources, and specify certain server settings. This chapter contains information about setting up your DECwindows Motif environment. See *Managing DECwindows Motif for OpenVMS Systems* and *HP DECwindows Motif for OpenVMS Alpha New Features* for additional system management information.

The following topics are discussed in this chapter:

- Section 4.1, Customizing the DECwindows X11 Display Server Startup Procedure
- Section 4.2, Adding DECwindows Base-Support Files
- Section 4.3, Determining and Reporting Problems

Managing DECwindows Motif Software

4.1 Customizing the DECwindows X11 Display Server Startup Procedure

4.1 Customizing the DECwindows X11 Display Server Startup Procedure

The DECwindows X11 Display Server manages the graphics devices on your workstation, such as the display, keyboard, and mouse. The initial startup command procedures automatically determine most of the configuration parameters for the DECwindows X11 Display Server. However, the command procedures cannot determine some items, such as the:

- List of screens associated with this server
- Font, resolution, and color capabilities for each screen
- Layout of the keyboard (such as, LK201-AA or LK401-AA)
- Appropriate network transport
- List of valid font servers and whether to active the font server on this system
- Level of auditing for client connections
- List of X server extensions to activate (such as, XINERAMA, SECURITY, or XKB)
- Current security policy (if using SECURITY)
- Current location of X authority file
- List of users that have trusted access to this server
- Number and order of screens in a multihead configuration (if using XINERAMA)
- X keyboard layout and related options (if using XKB)

You can specify these display server settings by modifying the server startup file as follows:

1. Make a copy of the file `SYS$MANAGER:DECW$PRIVATE_SERVER_SETUP.TEMPLATE` and rename it to `SYS$MANAGER:DECW$PRIVATE_SERVER_SETUP.COM`. This server startup file shows how to customize individual workstations by adding a section of DCL commands for each workstation.
2. Edit the file to add or change the desired setup options in either of two sections in the server startup file. Details on these options are available from *Managing DECwindows Motif for OpenVMS Systems*, *HP DECwindows Motif for OpenVMS Alpha New Features*, and the file itself. Setup options added to the “Cluster Common or Standalone Workstation

Managing DECwindows Motif Software

4.1 Customizing the DECwindows X11 Display Server Startup Procedure

Setup” section affect all nodes in a cluster. Setup options added to the “Cluster Member Workstation-Specific Setup” section affect only individual nodes. If you add a workstation-specific option, you must also update the variable *node_list*.

3. Restart DECwindows Motif on the workstations for which you customized the server startup using the following command:

```
$ @SYS$MANAGER:DECW$STARTUP RESTART
```

4.2 Adding DECwindows Base-Support Files

If you previously chose not to install or if you removed DECwindows base-support software, reconfigure the operating system specifying that you want DECwindows Motif support.

4.2.1 Reconfiguring the OpenVMS Operating System

To reconfigure the OpenVMS Alpha operating system to add DECwindows Motif support, use the PRODUCT RECONFIGURE command.

4.3 Determining and Reporting Problems

If you encounter a problem while using DECwindows Motif, report it to HP. Review the *DECwindows Motif for OpenVMS Alpha Version 1.3-1 Software Product Description* (SPD) for an explanation of warranty. If you encounter a problem during the warranty period, you can take one of the following actions:

- Call your HP support representative if your software contract or warranty agreement entitles you to telephone support.
- If you discover a problem with or have comments about the documentation, print or edit the online form SYS\$HELP:OPENVMSDOC_COMMENTS.TXT and send us your comments by Internet, fax, or mail. (See the Reader’s Comments section in the Preface for addresses.)

A

POLYCENTER Software Installation Utility Sample Installation

This appendix contains a sample installation of the DECwindows Motif software on the OpenVMS Alpha Version 7.3-2 operating system.

Refer to Chapter 2 for details about using the POLYCENTER Software Installation utility to install DECwindows Motif software.

The sample installation assumes that you have set the default directory to the device name and directory containing the DECwindows Motif saveset, as well as any necessary ECOs.

POLYCENTER Software Installation Utility Sample Installation
A.1 Sample Installation on an OpenVMS Alpha Version 7.3-2 System

A.1 Sample Installation on an OpenVMS Alpha Version 7.3-2 System

Example A-1 contains a sample of the DECwindows Motif software installation on an OpenVMS Alpha Version 7.3-2 operating system with sufficient system resources.

Example A-1 Sample Installation of an Upgrade of the DECwindows Motif Software on an OpenVMS Alpha Version 7.3-2 System With Sufficient System Resources

```
$ PRODUCT INSTALL DWMOTIF 
```

The following product has been selected:

```
DEC AXPVMS DWMOTIF V1.3-1          Layered Product
```

```
Do you want to continue? [YES] 
```

Configuration phase starting ...

You will be asked to choose options, if any, for each selected product and for any products that may be installed to satisfy software dependency requirements.

```
DEC AXPVMS DWMOTIF V1.3-1: DECwindows Motif
```

```
Copyright 2003 Hewlett-Packard Development Company, L.P.
```

```
Hewlett-Packard Company
```

```
This product uses the PAK: DW-MOTIF
```

```
Checking values of system parameters...
```

```
OK
```

```
Do you want the defaults for all options? [YES] 
```

If a Local Language Variant is installed, refer to the Installation Guide.

```
Do you want to continue? [YES] 
```

```
Do you want to review the options? [NO] Y 
```

```
DEC AXPVMS DWMOTIF V1.3-1: DECwindows Motif  
DEC AXPVMS VMS V7.3-2 [Installed]
```

(continued on next page)

POLYCENTER Software Installation Utility Sample Installation A.1 Sample Installation on an OpenVMS Alpha Version 7.3-2 System

Example A-1 (Cont.) Sample Installation of an Upgrade of the DECwindows Motif Software on an OpenVMS Alpha Version 7.3-2 System With Sufficient System Resources

```
Install Low Bandwidth X (LBX) Support: YES
Install the DECwindows Motif V1.3-1 client software: YES
  Install New Desktop: YES
    Install Manual (reference) pages for the New Desktop: YES
    Make the New Desktop the default desktop: YES
  Install traditional DECwindows Desktop: YES
  Programming Support for the C Language: YES
  Programming Support for the Pascal Language: YES
  Programming Support for the FORTRAN Language: YES
  Programming Support for the New Desktop: YES
  Programming examples: YES
    Sound example files: YES
    Programming examples for DECwindows: YES
    Programming examples for the New Desktop: YES
  Translated Image Support: YES
```

Are you satisfied with these options? [YES]

Execution phase starting ...

```
The following product will be installed to destination:
DEC AXPVMS DWMOTIF V1.3-1          DISK$2:[VMS$COMMON.]
The following product will be removed from destination:
DEC AXPVMS DWMOTIF V1.3-0          DISK$2:[VMS$COMMON.]
```

Portion done: 0%

```
...10%
...20%
...30%
...40%
...50%
...60%
...70%
...80%
...90%
```

**** DECwindows Motif application and run-time support files DETECTED ****

**** DECwindows device support files DETECTED ****

```
...100%
```

The following product has been installed:

(continued on next page)

POLYCENTER Software Installation Utility Sample Installation

A.1 Sample Installation on an OpenVMS Alpha Version 7.3-2 System

Example A-1 (Cont.) Sample Installation of an Upgrade of the DECwindows Motif Software on an OpenVMS Alpha Version 7.3-2 System With Sufficient System Resources

```
DEC AXPVMS DWMOTIF V1.3-1          Layered Product
The following product has been removed:
DEC AXPVMS DWMOTIF V1.3-0          Layered Product
```

```
DEC AXPVMS DWMOTIF V1.3-1: DECwindows Motif
```

System reboot is required.

Installation Verification Procedure can be run after reboot.

```
$ Logout 
```


B

Software Components

If you installed DECwindows Motif using the POLYCENTER Software Installation utility, you can obtain a list of all installed files and the directories and subdirectories into which the files were installed.

To obtain this list, enter the following POLYCENTER Software Installation utility command:

```
$ PRODUCT SHOW OBJECT/product=dwmotif
```

Following is a sample output from this command.

OBJECT	OBJECT TYPE	STATUS
-----	-----	-----
[000000]	directory	OK
[000000]DEC-AXPVMS-DWMOTIF-V0103-1.PCSI\$DESCRIPTION	file	OK
[000000]DEC-AXPVMS-DWMOTIF-V0103-1.PCSI\$TLB	file	OK
[CDA\$LIBRARY]	directory	OK
[CDA\$LIBRARY]CL_DAY.DOC_STYLE	file	OK
[CDA\$LIBRARY]DEFSTYLE.DDIF	file	OK
[CDE\$DEFAULTS]	directory	OK
[CDE\$DEFAULTS]	directory	OK
[CDE\$DEFAULTS.SYSTEM]	directory	OK
[CDE\$DEFAULTS.SYSTEM]	directory	OK
[CDE\$DEFAULTS.SYSTEM.APP-DEFAULTS]	directory	OK
[CDE\$DEFAULTS.SYSTEM.APP-DEFAULTS.C]	directory	OK
[CDE\$DEFAULTS.SYSTEM.APP-DEFAULTS.C]DT.DAT	file	OK
[CDE\$DEFAULTS.SYSTEM.APP-DEFAULTS.C]DTCALC.DAT	file	OK
[CDE\$DEFAULTS.SYSTEM.APP-DEFAULTS.C]DTCREATE.DAT	file	OK
[CDE\$DEFAULTS.SYSTEM.APP-DEFAULTS.C]DTFILE.DAT	file	OK
[CDE\$DEFAULTS.SYSTEM.APP-DEFAULTS.C]DTHELLO.DAT	file	OK
.		
.		
.		

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