Compaq DECwindows Motif for OpenVMS

Installation Guide

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This manual provides step-by-step instructions for installing *Compaq DECwindows Motif for OpenVMS*.

Revision/Update Information:	This manual supersedes the *DECwindows Motif Version 1.2–5 for OpenVMS Installation Guide*.
Operating System:	OpenVMS Alpha Version 6.2, 7.1–2, 7.2–1, or 7.3 OpenVMS VAX Version 6.2, 7.1, 7.2, or 7.3 VMS Version 5.5–2
Software Version:	*Compaq DECwindows Motif for OpenVMS* Alpha, Version 1.2–6 *Compaq DECwindows Motif for OpenVMS* VAX, Version 1.2–6

Compaq Computer Corporation
Houston, Texas

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Preface

Intended Audience

This manual is intended for anyone who plans to install *Compaq DECwindows Motif for OpenVMS* software.

Document Structure

This manual contains the following chapters and appendixes:

- Chapter 1 discusses how to prepare for installing *Compaq DECwindows Motif for OpenVMS* software.
- Chapter 2 discusses how to install *Compaq DECwindows Motif for OpenVMS* using the POLYCENTER Software Installation utility.
- Chapter 3 discusses how to install *Compaq DECwindows Motif for OpenVMS* using the VMSINSTAL procedure.
- Chapter 4 provides startup procedures. This chapter also includes a sample Installation Verification Procedure (IVP).
- Chapter 5 discusses tuning, customizing the environment, removing unwanted files, and reporting errors.
- Appendix A presents a sample DECwindows Motif installation using the POLYCENTER Software Installation utility on an OpenVMS Alpha Version 7.1–2 system, an OpenVMS VAX Version 7.1 system, and an OpenVMS Alpha Version 6.2 system. It also presents a sample installation of the PCSI ECO.
- Appendix B shows a sample product installation using the VMSINSTAL procedure on a VMS Version 5.5–2 system.
- Appendix C shows how to obtain a list of the software components for the *Compaq DECwindows Motif for OpenVMS* product using the POLYCENTER Software Installation utility.

Related Documents

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

- *Compaq DECwindows Motif for OpenVMS Release Notes*
- *Guide to the Compaq DECwindows Motif for OpenVMS 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*
- *A Comparison of System Management on OpenVMS AXP and OpenVMS VAX*

For additional information on the OpenVMS System Software Group (OSSG) products and services, access the following OpenVMS World Wide Web address:

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Conventions

Compaq DECwindows Motif for OpenVMS Alpha 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.

VMScluster systems are now referred to as OpenVMS Cluster systems. Unless otherwise specified, references to OpenVMS Clusters or clusters in this document are synonymous with VMSclusters.

In this manual, every use of DECwindows and DECwindows Motif refers to *Compaq DECwindows Motif for OpenVMS* software.

The following conventions are also used in this manual:

Ctrl/*x*	A sequence such as Ctrl/*x* 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: • 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 *italic text*.
italic text	Italic text indicates important information, complete titles of manuals, or variables. Variables include information that varies in system messages (Internal error *number*), in command lines (/PRODUCER=*name*), and in command parameters in text (where *dd* 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 radixes—binary, octal, or hexadecimal—are explicitly indicated.

1
Preparing to Install the Software

This chapter describes the preparation and requirements for installing *Compaq DECwindows Motif for OpenVMS* software using either the POLYCENTER Software Installation utility or the VMSINSTAL procedure. Your Bill of Materials (BOM) specifies the number and contents of your media. Verify the contents of your kit with this information. If your kit is damaged or if you find that parts are missing, contact your Compaq representative.

Note

Compaq strongly recommends that you read the release notes before proceeding with the installation. The *Compaq DECwindows Motif for OpenVMS* product provides online release notes. For information about accessing the release notes:

- If you install the software using the POLYCENTER Software Installation utility, see Section 2.2.
- If you use the VMSINSTAL procedure to install the software, see Section 3.2.5.

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, Required ECO for POLYCENTER Software Installation Utility
- Section 1.6, OSF/Motif Release 1.1.3 and XUI Programming Support
- Section 1.7, Saving Customized Bookreader Files
- Section 1.8, Installation Procedure Requirements

1.1 License Registration

Before you install and run *Compaq DECwindows Motif for OpenVMS* 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.

If you are installing *Compaq DECwindows Motif for OpenVMS* 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 *Compaq DECwindows Motif for OpenVMS* 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 *Compaq DECwindows Motif for OpenVMS* 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

Compaq DECwindows Motif for OpenVMS software can be installed on any supported Alpha or VAX processor. For a complete list of supported hardware, see the *Compaq DECwindows Motif for OpenVMS Software Product Description* (SPD).

1.3 Prerequisites for the Installation Procedures

Before you can install and configure *Compaq DECwindows Motif for OpenVMS* software, you must have the required versions 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 or the VMSINSTAL procedure to install your DECwindows Motif software according to the operating system information that follows.

Operating System	Installation Method
OpenVMS Alpha Version 6.2 (or higher) OpenVMS VAX Version 6.2 (or higher)	POLYCENTER Software Installation utility
VMS Version 5.5–2	VMSINSTAL procedure

1.4 Required Operating System Software

The *Compaq DECwindows Motif for OpenVMS* software requires one of the following operating systems:

- OpenVMS Alpha Version 6.2, 7.1–2, 7.2–1, or 7.3
- OpenVMS VAX Version 6.2, 7.1, 7.2, or 7.3
- VMS Version 5.5–2

If your system is not running one of these versions before you attempt to install *Compaq DECwindows Motif for OpenVMS*, the installation fails.

A minimum of 16 MB of memory is required for OpenVMS VAX systems; 32 MB of memory is highly recommended. A minimum of 64 MB of memory is required for OpenVMS Alpha systems; at least 128 MB of memory is highly recommended.

The OpenVMS operating system provides two subsets of components to support *Compaq DECwindows Motif for OpenVMS*. To use *Compaq DECwindows Motif for OpenVMS* software, your system should be running a version of the OpenVMS system that includes the following components:

- DECwindows Motif transports and base system support

  This support is required to install *Compaq DECwindows Motif for OpenVMS* and to run *Compaq DECwindows Motif for OpenVMS* applications. During the installation of OpenVMS, you are prompted to specify whether you want to install this option.

To determine whether this option was installed during the installation of OpenVMS, enter the following command:

```
$ DIR SYS$LIBRARY:DECW$TRANSPORT_COMMON.EXE
```

See Section 5.3 for information on adding DECwindows base support files after OpenVMS has been installed.

- DECwindows X11 display server for OpenVMS, fonts, and device drivers, which are necessary to display *Compaq DECwindows Motif for OpenVMS* applications or any other X11 applications on your Alpha or VAX system

  During the installation of OpenVMS, you are prompted to specify whether you want to install this option.

  To determine whether this option was installed during the installation of OpenVMS, enter the following command:

  ```
  $ DIR SYS$SYSTEM:DECW$SERVER_MAIN.EXE
  ```

  If the DECW$SERVER_MAIN.EXE file is not on your system, you cannot display *Compaq DECwindows Motif for OpenVMS* applications on your Alpha or VAX system. However, you can run *Compaq DECwindows Motif for OpenVMS* applications that display on a DECwindows X11 display server that runs on another system. The *Compaq DECwindows Motif for OpenVMS* installation procedure asks whether you want to continue the installation without workstation support.

  See Section 5.3 for information on adding DECwindows device support files and 75- or 100-dpi font files after OpenVMS has been 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 Required ECO for POLYCENTER Software Installation Utility

If you are installing the *Compaq DECwindows Motif for OpenVMS* software on an OpenVMS Version 6.2 or 7.1 system, you must first install an ECO to the POLYCENTER Software Installation (PCSI) utility. See the *Guide to the Compaq DECwindows Motif for OpenVMS CD–ROM* for details about this ECO. OpenVMS Versions 7.2 and higher include this functionality in the operating system; therefore, you need not apply this ECO if you are running OpenVMS Version 7.2 or higher.

The following example shows a PCSI ECO installation on an OpenVMS Alpha Version 7.1 system (installations on other OpenVMS versions differ slightly):

```
$ PRODUCT INSTALL VMS62TO71U2_PCSI

The following product has been selected:
    DEC AXPVMS VMS62TO71U2_PCSI V1.0       Patch (maintenance update)

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 VMS62TO71U2_PCSI V1.0

* This product does not have any configuration options.

Execution phase starting ...

The following product will be installed to destination:
    DEC AXPVMS VMS62TO71U2_PCSI V1.0       DISK$1:[VMS$COMMON.]

Portion done: 0%
...10%
...40%
...70%
...80%
...90%
...100%

The following product has been installed:
    DEC AXPVMS VMS62TO71U2_PCSI V1.0       Patch (maintenance update)
```

1.5.1 Upgrade Problem After Installing Required PCSI ECO

After installing the required POLYCENTER Software Installation utility ECO, your system will use the new features provided by this version of the PCSI utility. If a layered product is installed that makes use of this new functionality, then it may not be possible to revert back to an older version of the utility. The restriction occurs because there may be records in the software product database that the older version of the utility will not be able to interpret.

This scenario occurs if you install the PCSI ECO, then install DECwindows Motif, and later install certain upgrades to the OpenVMS operating system. The steps below describe the situations when this will occur:

1. Install the PCSI ECO kit onto OpenVMS Version 6.2, 6.2–1H1, 6.2–1H2, 6.2–1H3, 7.1, 7.1–1H1, or 7.1–1H2.
2. Install DECwindows Motif Version 1.2–6.
3. Upgrade to (or reinstall) OpenVMS Version 6.2, 6.2–1H1, 6.2–1H2, 6.2–1H3, 7.1, 7.1–1H1, or 7.1–1H2.

Upgrading to any of the OpenVMS versions listed in item 3 may fail (or other PRODUCT command operations on the product database may fail) with one of the following errors:

```
%SYSTEM-F-ACCVIO, access violation, ...
%PCSI-E-UNSDOCENC, unsupported product document encoding version
```

To prevent these failures after installing the PCSI ECO and DECwindows Motif, perform the following steps:

1. Remove DECwindows Motif using the following command:

   ```
   $ PRODUCT REMOVE DWMOTIF
   ```

2. Upgrade to (or reinstall) OpenVMS Version 6.2, 6.2–1H1, 6.2–1H2, 6.2–1H3, 7.1, 7.1–1H1, or 7.1–1H2.
3. Reinstall the PCSI ECO.
4. Reinstall DECwindows Motif.

This workaround is not needed if you upgrading to OpenVMS Alpha Version 7.2-1 or higher, or if you are upgrading to OpenVMS VAX Version 7.2 or higher. These versions (and all later versions) already include the new functionality added by the PCSI ECO.

1.6 OSF/Motif Release 1.1.3 and XUI Programming Support

The X Window and OSF/Motif libraries that are provided with *Compaq DECwindows Motif for OpenVMS* software are incompatible with those libraries provided with versions of DECwindows Motif for OpenVMS 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.

Programming in the XUI and OSF/Motif Release 1.1.3 environments that was provided in previous versions of DECwindows Motif is no longer supported in the *Compaq DECwindows Motif for OpenVMS* 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 1–1 and moves the previous files into the new [.DECW$113] subdirectory.

Table 1–1 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]

Refer to Section 3.2.7 for additional information about saving previous programming environments.

Note

The process for using the saved programming environment is documented in the programmer chapter of the release notes.

1.7 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 *Compaq DECwindows Motif for OpenVMS* 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]
```

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*.

1.8 Installation Procedure Requirements

This section discusses the requirements for installing the *Compaq DECwindows Motif for OpenVMS* software using PCSI and the VMSINSTAL installation procedure.

The installation procedure checks the following:

- Whether you are logged in to an appropriately privileged account (VMSINSTAL installations only)
- 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

See Section 3.1 for information on requirements specific to VMSINSTAL installations.

1.8.1 Process Account Quotas

The installation procedure requires that the installation account has the minimum quotas shown in Table 1–2.

Table 1–2 Process Quotas for the Installation Account

Quota Name	Alpha Value	VAX Value
ASTLM	250	24
BIOLM	150	18
BYTLM	64,000	32,768
DIOLM	150	18
ENQLM	2,000	30
FILLM	100	20

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 = 32768
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*.

1.8.2 Disk Space

Use Table 1–3 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.
- For VMSINSTAL installations, restart the installation and specify another disk to use as an alternate working device. See Section 3.1.2 for information about using an alternate working device.
- 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.

Table 1–3 Approximate Required Disk Space by Component (in Blocks)

Component	Alpha	VAX
Base kit[1]	65,818	81,891
Runtime support	Not applicable	66,021
CDA support	Not applicable	3,650
Motif applications	Not applicable	12,220
Desktop support	71,066[2]	Not applicable
New Desktop	47,314	Not applicable
DECwindows desktop	20,952	Not applicable
Manual pages for New Desktop	2,800	Not applicable
Programming environment	63,192[3]	13,500[2]
C, C++	19,916	8,190
FORTRAN	14,792	2,187
Pascal	15,656	3,123
New Desktop	12,828	Not applicable
Example programs	51,652[4]	12,672
Sound examples	14,220	Not Applicable
Programming examples	23,440	12,672
New Desktop examples	13,992	Not Applicable
Translated image support	39,632	Not applicable
NCSA Mosaic	Not applicable	1,200[5]
Total disk space required:	291,360	109,263

[1]This number includes all base kit files. For Alpha systems, the indicated subcomponents are always included in the base kit.

[2]This number includes all desktop support. The number of blocks required for the individual desktop options is shown in the subtable.

[3]This number includes all programming language support. The actual number of blocks required for the individual programming languages is shown in the subtable.

[4]This number includes all examples programs. The actual number of blocks required for the individual example programs is shown in the subtable.

[5]NCSA Mosaic available only on VMS 5.5–2 systems.

For VMSINSTAL installations, refer to Section 3.1.2 for information on using an alternate working device and Section 3.1.3 for information on using the Distributed File Service.

1.8.3 System Parameters

Table 1–4 lists the minimum required system parameter values for the installation. Depending on the kinds of programs and applications running at your site, you might need higher values for some settings.

Table 1–4 Minimum Required System Parameter Values

System Parameter	Alpha Value	VAX Value
GBLSECTIONS	600[1]	420[1]
GBLPAGES	150,000[1]	62,000[1]
GBLPAGFIL	1,024	6,024
SWPOUTPGCNT	512	500
MAXBUF	8,192	2,048
VIRTUALPAGECNT	—	50,000
CHANNELCNT	255	255
PROCSECTCNT	64	40
PQL_DPGFLQUOTA	—	32,768
PQL_MPGFLQUOTA	32,768	—
PQL_MASTLM	100	100
PQL_MBIOLM	100	100
PQL_MBYTLM	100,000	48,000
PQL_MDIOLM	100	100
PQL_MENQLM	300	200
PQL_MFILLM	100	100
PQL_MPRCLM	10	8
PQL_MWSDEFAULT	1,024	512
PQL_MWSQUOTA	2,048	1,024

[1]If 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)

Table 1–4 (Cont.) Minimum Required System Parameter Values

System Parameter	Alpha Value	VAX Value
PQL_MWSEXTENT	8,192	2,048
CLISYMTBL	512	256
GH_RES_CODE	1,024[2]	—
IMGREG_PAGES	2,000[2]	—
WINDOW_SYSTEM	1	1
NPAGEDYN	1,998,848	999,936
PAGEDYN	600,000	400,000
WSMAX	12,000	4,096

[2]This system parameter is available only on OpenVMS Alpha Version 6.2 (or higher) systems.

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.

1.8.4 Additional System Maintenance Procedures

This section explains how to use the System Generation utility (SYSGEN) and the AUTOGEN utility to prepare your system for the *Compaq DECwindows Motif for OpenVMS* 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. Therefore, in most cases you do not have to check and modify these values manually.

1.8.4.1 Checking System Parameter Values

To check the values of your system parameters, invoke the SYSGEN utility by entering the following command at the DCL prompt:

```
$ RUN SYS$SYSTEM:SYSGEN
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 MAXBUF system parameter:

```
SYSGEN> SHOW MAXBUF
```

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

If the current values are less than the values in Table 1–4, increase the system parameter settings. Section 1.8.4.4 describes the procedures for using the AUTOGEN utility to increase these values.

1.8.4.2 Calculating the Number of Free Global Pages and Global Sections

If your system parameter values are equal to or greater than the minimum values specified in Table 1–4, you can continue with the product installation. However, to install and run *Compaq DECwindows Motif for OpenVMS* software, you must have sufficient free global pages and global sections for the DECwindows Motif software and the file SYS$LIBRARY:DCLTABLES.EXE.

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.

Enter the following DCL command to determine the number of global pages required for SYS$LIBRARY:DCLTABLES.EXE:

```
$ 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.

Enter the WRITE command with the F$GETSYI lexical function to find the number of contiguous free global pages and the number of free global sections. The following example shows how to obtain this information at your terminal, which is the default for SYS$OUTPUT:

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

See Table 1–5 to determine whether the number of contiguous free global pages and the number of free global sections is sufficient. If these values are not sufficient to continue with the installation, then see Section 1.8.4.4, which describes the procedures for increasing these values using the AUTOGEN utility.

Table 1–5 Required Number of Contiguous Free Global Pages and Free Global Sections

Currently Running DECwindows Motif		
System Resource	**Alpha Value**	**VAX Value**
CONTIG_GBLPAGES	12,000	6,000
FREE_GBLSECTS	20	20

Not Currently Running DECwindows Motif		
System Resource	**Alpha Value**	**VAX Value**
CONTIG_GBLPAGES	92,000	47,000
FREE_GBLSECTS	260	130

1.8.4.3 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 on OpenVMS Alpha systems and 50,000 blocks on OpenVMS VAX systems. However, these sizes 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 large 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 *Guide to Setting Up an OpenVMS System*. For more information about performance tuning in general, see the *Guide to OpenVMS Performance Management*.

1.8.4.4 Changing System Parameter Values Using the AUTOGEN Utility

Use the AUTOGEN utility to change system parameters. 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.

To add a new parameter, add a line to the file and include both the name of the parameter and its value. For example:

```
MIN_MAXBUF = 8192
```

To make incremental adjustments to parameters, such as global pages and global sections, use ADD_. The following example increases the global pages value by 30,000:

```
ADD_GBLPAGES = 30000
```

Table 1–6 lists the system parameters that you need to adjust incrementally.

Table 1–6 Recommended System Parameter Values to Use with the ADD_ Option

System Parameter	Alpha Increment	VAX Increment
SYSMWCNT	—	235
GBLSECTIONS	280	140
GBLPAGES	92,000	30,000
GBLPAGFIL	768	5,000
NPAGEDYN	300,000	500,000
PAGEDYN	180,000	100,000

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*.

1.8.5 Backing Up Your System Disk

Compaq 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*.

1.8.6 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 -
   _$ Compaq DECwindows Motif for OpenVMS, Version 1.2--6 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 *Compaq DECwindows Motif for OpenVMS* software using the POLYCENTER Software Installation utility on Alpha and VAX systems. The *Compaq DECwindows Motif for OpenVMS* 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 Software
- Section 2.4, Recovering from Errors

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
- Discussing differences between the POLYCENTER Software Installation utility and the VMSINSTAL procedure

Using the POLYCENTER Software Installation Utility

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

Note

You must use the VMSINSTAL Software Installation utility to install DECwindows Motif software on VMS Version 5.5–2 systems.

Caution

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

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 *Compaq DECwindows Motif for OpenVMS 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_DWMOTIF126]
$ 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 *Compaq DECwindows Motif for OpenVMS Release Notes* are also available in HTML and ASCII (.TXT) formats in the documentation directory on the *Compaq DECwindows Motif for OpenVMS* CD–ROM. Refer to the *Guide to the Compaq DECwindows Motif for OpenVMS CD–ROM* for information about accessing the release notes and other DECwindows Motif documentation.

2.3 Installing the Software

Important

If you are installing *Compaq DECwindows Motif for OpenVMS* software on an OpenVMS Version 7.1 or Version 6.2 system, you must install an ECO for the POLYCENTER Software Installation utility before installing the DECwindows Motif software. See the *Guide to the Compaq DECwindows Motif for OpenVMS CD–ROM* for details about this ECO. See Section 1.5 for more information.

The sections that follow take you through the stages of installing your *Compaq DECwindows Motif for OpenVMS* software using the POLYCENTER Software Installation utility. The installation procedure is nearly identical on Alpha and VAX systems.

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

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.
- 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.

2.3.1 Starting the Installation

To start the POLYCENTER Software Installation utility, enter one of the following commands at the DCL prompt:

```
$ DEFINE PCSI$SOURCE device:[PCSI_ALPHA_DWMOTIF126]
```

or

```
$ DEFINE PCSI$SOURCE device:[PCSI_VAX_DWMOTIF126]
```

where *device* is the name of the device on which the distribution CD-ROM is mounted.

Next, invoke the POLYCENTER Software Installation utility:

```
$ PRODUCT INSTALL DWMOTIF
```

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 wish 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 V1.2-6             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 V1.2-6: DECwindows Motif

    Compaq DECwindows Motif for OpenVMS Alpha, Version 1.2-6 is based on
    Release 5 (R5) of the MIT X11 Window System and OSF/Motif
    Version 1.2.3.
```

```
DECwindows Motif V1.2-6 provides both runtime support and development
support for the X Window system. Runtime and development support is
provided for MIT X11 Release 5 and OSF/Motif Version 1.2.3. Runtime
only support is provided for OSF/Motif Version 1.1.3.

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formation about Compaq's licensing terms and policies, contact your
local Compaq office.
```

2.3.2.1 Verifying Sufficient Allocation for the GBLPAGES and CLISYMTBL 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 GBLPAGES, CLISYMTBL, and NPAGEDYN system parameters:

- On OpenVMS Alpha systems, the minimum value for the GBLPAGES system parameter is 150,000; on OpenVMS VAX systems, the minimum value is 62,000.
- On OpenVMS Alpha systems, the minimum value for the CLISYMTBL system parameter is 512; on OpenVMS VAX systems, the minimum value is 256.

- On OpenVMS Alpha systems, the minimum value for the NPAGEDYN system parameter is 1,998,848; on OpenVMS VAX systems, the minimum value is 999,936.

If your system values are sufficient, the installation procedure continues. If 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 a message similar to the following:

```
Checking values of system parameters...

%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 1.2-6 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 V1.2-6.

        @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
```

A similar message is displayed on OpenVMS VAX systems.

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.

%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
1.2-6. The XUI programming environment is also not included in
DECwindows Motif Version 1.2-6.

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

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.

```
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 Asking About Selecting a Desktop (Alpha Only)

On OpenVMS Alpha systems, the installation procedure displays information about the New Desktop and asks you whether the New Desktop should be the default desktop.

```
Install New 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]

    Install Manual (reference) pages for the New Desktop

    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]

    Make the New Desktop the default desktop [YES]


Install traditional DECwindows Desktop

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 4.4 for instructions about how to change the choice of desktop after the installation has completed.

2.3.2.6 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.

On OpenVMS Alpha systems, the installation procedure uses the following dialog:

```
Programming Support for the C Language

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


Programming Support for the C Language [YES]

Programming Support for the Pascal Language

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


Programming Support for the Pascal Language [YES]

Programming Support for the FORTRAN Language

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


Programming Support for the FORTRAN Language [YES]
```

```
Programming Support for the New Desktop

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

Programming Support for the New Desktop [YES]

Programming examples

Examples of programming to use the various libraries.

Programming examples [YES]

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

    Sound example files

    Sample sound files that can be used with DECsound.

    Sound example files [YES]

    Programming examples for DECwindows

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

    Programming examples for DECwindows [YES]

    Programming examples for the New Desktop

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

    Programming examples for the New Desktop [YES]
```

On OpenVMS VAX systems, the installation procedure uses the following dialog:

```
DECwindows Motif runtime support files [YES]

Programming Support for the C Language

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

Programming Support for the C Language [YES]

Programming Support for the Pascal Language

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

Programming Support for the Pascal Language [YES]

Programming Support for the FORTRAN Language

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

```
Programming Support for the FORTRAN Language [YES]

Programming examples [YES]
```

2.3.2.7 Translated Image Support

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

```
Translated Image Support

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

Translated Image Support [YES]
```

2.3.2.8 Language Variants Notice

The dialog now displays a warning about the need to update any language variants. You should not install DECwindows Motif Version 1.2–6 unless you will also install DECwindows Motif Version 1.2–6 language variants for all the languages that you wish 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 1.2-6 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 1.2-6 then you should remove the local language variant before
installing DECwindows Motif Version 1.2-6.

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

2.3.2.9 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 V1.2-6: DECwindows Motif
    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]
```

2.3.2.10 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 2.3.2.11 for more information.

```
Execution phase starting ...

The following product will be installed to destination:
    DEC AXPVMS DWMOTIF V1.2-6             DISK$2:[VMS$COMMON.]
The following product will be removed from destination:
    DEC AXPVMS DWMOTIF V1.2-5             DISK$2:[VMS$COMMON.]

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

2.3.2.11 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 VAX systems, if the files are not installed, the following message is displayed:

```
The DECwindows Motif application and run-time support files have not been
installed.

You can use the DECwindows tailoring facility to tailor on the device
support files and the 75DPI and/or the 100DPI font files using the
DECwindows save sets which are shipped with the OpenVMS kit as follows:

   $ RUN SYS$UPDATE:DECW$TAILOR

The installation of DECwindows Motif cannot continue.
```

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 ****
```

On OpenVMS VAX systems, 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 DECwindows tailoring facility to tailor on the device
support files and the 75DPI and/or the 100DPI font files using the
DECwindows save sets, which are shipped with the OpenVMS kit, as follows:

  $ RUN SYS$UPDATE:DECW$TAILOR
```

On OpenVMS Alpha systems, 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.
```

On both systems, 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 5.3 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.

2.3.2.12 Reviewing Final Installation Notes

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

```
...100%

The following product has been installed:
    DEC AXPVMS DWMOTIF V1.2-6             Layered Product
The following product has been removed:
    DEC AXPVMS DWMOTIF V1.2-5             Layered Product

DEC AXPVMS DWMOTIF V1.2-6: DECwindows Motif

    System reboot will be required following upgrade of language variants.

    A system reboot will be required to install the new DECwindow 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 1.2-6 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.

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

```
%PCSIUI-INSFAIL, The installation of DECwindows Motif Version 1.2-6 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 will will check the system parameters at this point.

Note

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

When *Compaq DECwindows Motif for OpenVMS* attempts to start after successful installation, you will see a message 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.

3

Using the VMSINSTAL Procedure (VMS Version 5.5–2 Only)

This chapter explains how to install *Compaq DECwindows Motif for OpenVMS* software using the VMSINSTAL procedure on VMS Version 5.5–2 systems. Included is a step-by-step description of the installation procedure, information about error recovery, and instructions for accessing the release notes.

Note

The VMSINSTAL installation procedure is only provided for VMS Version 5.5–2 systems and should not be used on OpenVMS Version 6.2 and OpenVMS Version 7.1 systems. Use the POLYCENTER Software Installation utility to install DECwindows Motif on these OpenVMS systems; see Chapter 2.

Using the VMSINSTAL procedure, the *Compaq DECwindows Motif for OpenVMS* installation takes approximately 45 minutes, depending on the processor type. The VMSINSTAL procedure installs the *Compaq DECwindows Motif for OpenVMS* product on your system disk.

Note

A Product Authorization Key (PAK) for *Compaq DECwindows Motif for OpenVMS* must be registered and loaded before starting the *Compaq DECwindows Motif for OpenVMS* installation.

Using the VMSINSTAL Procedure (VMS Version 5.5–2 Only)

Caution

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

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

This chapter presents information about the following topics:

- Section 3.1, Installation Procedure Requirements
- Section 3.2, Installation Procedure
- Section 3.3, Recovering from Errors
- Section 3.4, Accessing the Release Notes

3.1 Installation Procedure Requirements

This section discusses the requirements for installing your *Compaq DECwindows Motif for OpenVMS* VAX software using the VMSINSTAL installation procedure.

Refer to Section 1.8 for information on requirements common to both VMSINSTAL and PCSI installations.

Prepare to install *Compaq DECwindows Motif for OpenVMS* software by logging in to a privileged account, such as the system manager (SYSTEM) account. See Section 3.1.1 for the prerequisite privileges. Although Compaq prefers that you perform the installation using the operator console or other hardcopy terminal, you can perform the installation from a DECterm window.

3.1.1 Process Privileges

To install *Compaq DECwindows Motif for OpenVMS* software, you must be logged in to an account that has the SETPRV privilege or the following privileges:

- CMKRNL
- WORLD
- SYSPRV

The installation procedures turn off the BYPASS privilege at the start of the installation and turn it back on when the installation is completed.

3.1.2 Using an Alternate Working Device

You can use the alternate working device (AWD) option to specify another disk to temporarily store the files while they are being unpacked from the save sets on the distribution media. Once the save sets are unpacked, the installation procedure adds or replaces the files that are necessary for the installation of *Compaq DECwindows Motif for OpenVMS* software from the AWD to the system disk.

If this installation is to upgrade an existing DECwindows Motif environment, then the AWD option allows you to perform an installation with fewer free blocks on the system disk than are otherwise required.

The installation procedure creates a temporary working directory either on the AWD device or by default in the following location:

```
SYS$SYSROOT:[SYSUPD.facunvvv]
```

If you use the AWD option, you can specify a directory. Specifying a directory is optional, but the following guidelines apply:

- If you specify an existing directory, the installation procedure creates a working directory as a subdirectory within the directory that you specify (for example, [WORK.*facunvvv*]). The installation procedure deletes the working subdirectory after the installation is completed.
- If you do not specify a directory, the installation procedure creates a working directory on the specified device with a directory specification of [000000.*facunvvv*]. The installation procedure deletes the working directory after the installation is completed.
- If you specify a nonexistent directory, the installation procedure creates both the specified directory and a working directory as subdirectories within the directory that you specify. The installation procedure deletes only the working directory and not the originally specified directory after the installation is completed. You must delete the specified directory manually.

Use the following format to invoke the VMSINSTAL procedure and specify the AWD option:

```
$ @SYS$UPDATE:VMSINSTAL facunvvv dkcu OPTIONS N,AWD=ddcu:[dir]
```

Use the following definitions for the variables in the command line:

- For *facunvvv*, supply the product name and version number.

For the *Compaq DECwindows Motif for OpenVMS* installation, the value of *facunvvv* is DWMOTIFVAXU6012.

- For *dkcu*, give the device name of the source drive that holds the distribution media.
- For *ddcu*, give the device name of the alternate working device.
- For *dir*, specify the name of the directory on the alternate working device where the product subdirectory will be created. The default is [000000].

For example, to install the *Compaq DECwindows Motif for OpenVMS* product from the compact disc onto an OpenVMS VAX system using DKA2 as the alternate working device, enter the following command:

```
$ @SYS$UPDATE:VMSINSTAL DWMOTIFVAXU6012 source-drive -
_$ OPTIONS N,AWD=DKA2:
```

3.1.3 Using the Distributed File Service

You can specify a temporary working directory on a disk that uses the Distributed File Service (DFS).

If you use a DFS-mounted disk as your alternate working device, the installation procedure erroneously reports that there are –1 free blocks on the alternate working device. This error occurs because the DFS client (the installation procedure, in this case) cannot determine the amount of free disk space on the DFS-mounted disk.

Before using a DFS-mounted disk, manually determine its free disk space. Log in to the system on which the disk is mounted, and enter the SHOW DEVICE command as follows:

```
$ SHOW DEVICE
```

3.2 Installation Procedure

The *Compaq DECwindows Motif for OpenVMS* installation procedure consists of a series of questions and informational messages. Enter a question mark (?) for help at any time during the installation. See Appendix B for a sample VMSINSTAL installation of DECwindows Motif on an OpenVMS VAX system.

To stop the installation procedure, press Ctrl/Y. When you press Ctrl/Y, the installation procedure deletes all files created up to that point and then exits. You can then restart the installation.

Note

This option is not recommended.

3.2.1 Product and Device Names

During the installation, you must tell the system what product is being installed and which drive contains the distribution media. Refer to a product with its facility name and version; refer to a drive with its device name. Use the following format to enter product and device names:

- *facunvvv*

  Represents the facility name and version number of the product being installed, also known as the installation name. The following table explains the format of *facunvvv*.

Variable	Definition
fac	Product name code (1 to 36 alphanumeric characters)
u	Update character ''u'' (1 character)
n	Update version number (1 digit)
vvv	Major version number (3 digits)

  For the *Compaq DECwindows Motif for OpenVMS* installation, use the installation name DWMOTIFVAXU6012.

- *ddcu*

  Specifies the device name of the source drive that holds the distribution media.

For additional information about device names on your system, see the upgrade and installation supplement for your VAX processor.

3.2.2 Invoking the VMSINSTAL Procedure

To start the installation, invoke the VMSINSTAL command procedure from a privileged account, such as the SYSTEM account. The VMSINSTAL.COM file is located in the SYS$UPDATE directory.

When the system prompts you with a question during the installation procedure, the default answer is often listed in brackets ([ ]).

Using the VMSINSTAL Procedure (VMS Version 5.5–2 Only)
3.2 Installation Procedure

Perform the following steps to run the VMSINSTAL procedure and install *Compaq DECwindows Motif for OpenVMS* software:

1. Locate the *Compaq DECwindows Motif for OpenVMS* distribution media.
2. If your system is not already running, start up the system and log in to a privileged account, such as the system manager (SYSTEM) account.
3. Place the distribution media in the source drive. If your *Compaq DECwindows Motif for OpenVMS* distribution kit contains more than one volume, place the first volume in the drive. During the installation procedure, you will be prompted to load the next volume. The paper labels on the media indicate the order in which you load them.
4. Start the VMSINSTAL procedure. On the command line, specify the product name (that is, the facility name): DWMOTIFVAXU6012 for OpenVMS VAX systems.

   Specify OPTIONS N to access the release notes, which are included in your media kit. The *Compaq DECwindows Motif for OpenVMS Release Notes* can be displayed or printed before the installation begins. Enter the following command at the DCL prompt:

   ```
   $ @SYS$UPDATE:VMSINSTAL DWMOTIFVAXU6012 ddcu: OPTIONS N
   ```

   For *ddcu*, specify the device name of the source drive that holds the distribution media. See Section 3.2.1 for more information about the format of product and device names. Also, see the OpenVMS upgrade and installation supplement for your VAX processor.

   For example, if you install *Compaq DECwindows Motif for OpenVMS* from a magnetic tape cartridge in drive MUA0:, enter the following command to invoke the VMSINSTAL command procedure:

   ```
   $ @SYS$UPDATE:VMSINSTAL DWMOTIFVAXU6012 MUA0: OPTIONS N
   ```

   If you install *Compaq DECwindows Motif for OpenVMS* using the alternate working device (AWD) option described in Section 3.1.2, invoke the VMSINSTAL command procedure as follows:

   ```
   $ @SYS$UPDATE:VMSINSTAL DWMOTIFVAXU6012 ddcu: OPTIONS N,AWD=ddcu:[dir]
   ```

   The first instance of *ddcu* is the device name of the source drive that holds the distribution media. The second instance of *ddcu* is the device name of the AWD, which is the target device. The variable *dir* is the name of the directory on the alternate working device in which the product subdirectory is created. The default directory is [000000].

For example, if you are installing *Compaq DECwindows Motif for OpenVMS* from a magnetic tape cartridge in drive MUA0: using alternate working device DUA2: and directory [INSTALL], enter the following command:

```
$ @SYS$UPDATE:VMSINSTAL DWMOTIFVAXU6012 MUA0: OPTIONS N,AWD=DUA2:[INSTALL]
```

If the command to execute the VMSINSTAL procedure fails, check to see if any of the following conditions occurred:

- You entered the product name incorrectly. VMSINSTAL displays the following message:

  ```
  %VMSINSTAL-E-NOPRODS, None of the specified products were found
  ```

- You specified an incorrect name for the source drive. VMSINSTAL displays an ‘‘invalid device’’ error message and prompts you until you enter the name of a source device that exists on the system. Remember to enter a colon (:) after the device name.

The VMSINSTAL procedure displays messages similar to the following:

```
        VAX/VMS Software Product Installation Procedure V5.5-2

It is 26-MAR-2000 at 08:02

Enter a question mark (?) at any time for help.
```

3.2.3 Confirming System Backup

The VMSINSTAL procedure asks the following question:

```
* Are you satisfied with the backup of your system disk [Yes]?
```

If you made a backup copy of your system disk, press the Return key and proceed to Section 3.2.4.

If you did not make a backup copy of the system disk, do the following:

1. Enter No and press the Return key. The VMSINSTAL procedure exits and returns you to DCL level.
2. Back up the system disk as described in the OpenVMS upgrade and installation supplement for your VAX processor.
3. After you make a backup copy of the system disk, restart the installation procedure from step 4 in Section 3.2.2.

3.2.4 Mounting Distribution Media

The VMSINSTAL procedure asks you where you will mount the distribution volumes:

```
* Where will the distribution volumes be mounted:
```

Enter the directory specification in the following format:

```
device-name:[directory]
```

Then the procedure tells you to enter the name of the product (facility name); enter DWMOTIFVAXU6012.

```
Enter the names of the product to be processed from the first
distribution volume set.
* Product: DWMOTIFVAXU6012
```

When the installation begins, the VMSINSTAL procedure displays informational text similar to the following:

```
The following products will be processed:

 DWMOTIFVAX V1.2-6

  Beginning installation of DWMOTIFVAXU6 Version 1.2 at 10:36

%VMSINSTAL-I-RESTORE, Restoring product save set  A...
```

3.2.5 Choosing a Release Notes Option

If you specify OPTIONS N during step 4 in Section 3.2.2, the VMSINSTAL procedure prompts you to select a release notes option:

```
Release notes included with this kit are always copied to SYS$HELP.

    Additional Release Notes Options:

    1.  Display release notes
    2.  Print release notes
    3.  Both 1 and 2
    4.  None of the above

* Select option [2]:
```

Enter the number of the option you want:

- Option 1 displays the release notes on the terminal.
- Option 2 prints the release notes (default).
- Option 3 displays and prints the release notes.

- Option 4 allows you to continue with the installation if you do not want to display or print the release notes.

Note

Compaq strongly recommends that you read the release notes before continuing the installation.

If you choose option 1, the release notes display on the terminal. You are prompted to press Return to continue reading the release notes. If you want to end the display and continue the installation, press Ctrl/C. After you press Ctrl/C, you are asked whether you want to continue with the installation; you are informed that the release notes have been moved to SYS$HELP.

Caution

Do not press Ctrl/Y; if you do, the installation ends.

If you choose option 2 or 3, you are prompted for the name of the print queue. If you do not specify a print queue, the release notes are queued to SYS$PRINT by default.

3.2.6 Continuing the Installation

After the VMSINSTAL procedure processes your release notes option, the following message is displayed:

```
* Do you want to continue the installation [No]?
```

If you want to continue with the installation, enter Yes and press Return. If you want to end the installation, press the Return key.

Regardless of the release notes option you select, the VMSINSTAL procedure copies the release notes to the SYS$HELP directory. See Section 3.4 for information about how to access the release notes once they are copied to the SYS$HELP directory.

```
%VMSINSTAL-I-RELMOVED, Product's release notes have been moved to SYS$HELP.

     *** Installing Compaq DECwindows Motif for OpenVMS VAX software ***

  Copyright 2000 Compaq Computer Corporation
```

```
Confidential computer software. Valid license from Compaq or authorized
sublicensor required for possession, use , or copying. Consistent with
FAR 12.211 and 12.212, Commercial Computer Software, Computer Software
Documentation, and Technical Data for Commercial Items are licensed
to the U.S. Government under vendor's standard commercial license.
```

3.2.7 Preserving the OSF/Motif Release 1.1.3 Programming Environment

If DECwindows Motif is already installed on your system, the OSF/Motif Release 1.1.3 programming environment is incompatible with *Compaq DECwindows Motif for OpenVMS* software. (Note that the OSF/Motif Release 1.2 programming environment is overwritten with the OSF/Motif Release 1.2.3 Toolkit when you install the *Compaq DECwindows Motif for OpenVMS* software.)

The installation procedure asks whether you want to preserve 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
1.2-6. The XUI programming environment is also not included in
DECwindows Motif Version 1.2-6.

If you intend to continue developing programs for XUI or OSF/Motif
Release 1.1.3 you should 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.

* Do you want to save the OSF/Motif Release 1.1.3 and XUI
* programming support files [No]?
```

If you want to preserve the XUI and OSF/Motif Release 1.1.3 programming environment, enter Yes and press the Return key. The installation procedure creates subdirectories that contain the OSF/Motif Release 1.1.3 programming files so that they can be used for programming at a later time.

See Section 1.6 for information about how to reference the previous version of the programming support files.

3.2.8 Installing the Entire Kit

You can install the entire *Compaq DECwindows Motif for OpenVMS* software kit, or you can install part of the kit. The DECwindows Motif base kit is always installed; the *Compaq DECwindows Motif for OpenVMS* programming environment is optional.

The procedure asks you whether you want to install the entire kit:

```
  You can install the DECwindows Motif kit completely or in selected
  portions.  A complete installation requires as many as 82,500 blocks.
  If you choose to perform a partial installation, you can select
  (tailor) the programming support files that support your DECwindows
  Motif application development.  Whether you perform a complete or partial
  installation, this kit provides support for running DECwindows Motif
  applications on OpenVMS compute servers.

* Do you want to install the entire kit [Yes]?
```

If you want to install the entire kit, press the Return key and verify your kit selections (see Section 3.2.10). If you choose not to install the entire kit, enter No and continue with questions about installing programming support (see Section 3.2.9).

3.2.9 Choosing Programming Support Files

The installation procedure asks whether you want to install programming support:

```
  This installation procedure provides support files for developing
  DECwindows Motif applications in several programming languages.  These
  files are needed only to develop applications and are not required to run
  DECwindows Motif applications.  The free disk space requirement for each
  programming support file ranges from 3000 to 8000 blocks.

* Do you want to install DECwindows Motif programming support [Yes]?
```

Press the Return key to install programming support. The following message is displayed:

```
  Support files are supplied for the following OpenVMS programming languages:

        FORTRAN, Pascal

  In addition, support files are supplied for programming in the C language
  using conventions and standards developed at the Massachusetts Institute
  of Technology.
```

If you choose not to install programming support, enter No and proceed to the instructions in Section 3.2.10. The installation procedure asks whether you want to install all of the programming support files:

```
* Do you want to install all programming language support files [Yes]?
```

Press the Return key if you want to install all the languages. If you do not want to install all the languages, enter No and press the Return key. Each language is then displayed. Enter Yes for each language that you want to install.

The installation procedure asks whether you want to install DECwindows Motif programming example files:

```
* Do you want to install DECwindows Motif programming examples [Yes]?
```

Press the Return key if you want to install the programming example files. If you enter No, the example files are not installed.

3.2.10 Verifying Kit Selections

The components of the kit that you selected now display; you can verify that these choices are correct. A message similar to the following is displayed:

```
You have selected the following portions of the kit:

        o  DECwindows Motif Applications and Run-time Libraries

        o  DECwindows Motif programming examples

        o  DECwindows Motif programming support

           FORTRAN, Pascal
           MIT C language programming conventions

        o  OSF/Motif Release 1.1.3 and XUI saved programming
           support

* Are these selections correct [Yes]?
```

Press the Return key if the choices are correct. If you want to change your selections, enter No and press the Return key. You are prompted by the previous questions again, beginning with whether you want to install the entire kit (see Section 3.2.8). After you repeat the selection procedure and are satisfied with your selections, enter Yes and press the Return key.

3.2.11 Verifying Disk Space

The installation procedure checks whether your system disk contains a sufficient number of free blocks.

1. If the blocks are available, the installation continues (see Section 3.2.12).
2. If you do not have sufficient system disk space to install the portions you chose, the installation displays a message similar to the following:

```
Your system disk has only 25364 free blocks, and
you have selected to install approximately 76050 blocks.

                        * * * N O T E * * *

The installation procedure has determined that you do not have enough
disk space to complete the installation.  However, it may be possible
to continue successfully if you are installing DECwindows Motif on a
system that already has DECwindows Motif installed.

* Do you want to reselect which DECwindows Motif options to install [Yes]?
```

If you press the Return key, you can reselect the DECwindows Motif options beginning with those described in Section 3.2.8. If you enter No, the procedure asks whether you want to continue the installation:

```
* Do you want to continue the installation anyway [Yes]?
```

Caution

If you press the Return key, the installation continues. However, if you exceed the amount of available disk space, the installation fails.

If you enter No, the installation ends. You can then either free up blocks on the system disk and restart the installation or start the installation again using the AWD option. (See Section 3.1.2 for information about using the AWD option.)

3. If you specify an alternate working device that does not have sufficient disk space to install the portions you have chosen, the installation displays a message similar to the following:

```
Your specified alternate working directory device has only 68977
free blocks, and this installation will require approximately 76050 blocks.

You should either reselect which DECwindows Motif options to install, or
restart this installation using an alternate working directory device with
more free blocks.

                *  *  *  NOTE  *  *  *
```

```
Although the installation procedure estimates you do not have enough disk
space to complete the installation, it may be possible to continue
successfully if you are installing DECwindows Motif on a system which
already has DECwindows installed.

* Do you want to reselect which DECwindows Motif options to install [Yes]?
```

If you press the Return key, you can reselect the DECwindows Motif options beginning with those described in Section 3.2.8. If you enter No, the procedure asks whether you want to continue the installation:

```
* Do you want to continue the installation anyway [Yes]?
```

If you press the Return key, the installation continues.

Caution

If you lack sufficient free disk space for installation on the alternate working device, the installation procedure ends.

If you enter No, the installation procedure ends. Restart the installation once you set up an alternate working device with sufficient disk space. (See Section 3.1.2 for more information about using the AWD option.)

3.2.12 Verifying License Registration

The installation procedure continues and displays license information similar to the following:

```
A registered and loaded product authorization key for DW-MOTIF is
required to run any DECwindows Motif for OpenVMS application. If you
answer No to the next question, the installation of DECwindows Motif for
OpenVMS will be terminated.

      Product:      DW-MOTIF
      Producer:     DEC
      Version:
      Release Date:

* Does this product have an authorization key registered and loaded ?
```

Note that the NET-APP-SUP-250 and NET-APP-SUP-300 PAKs are also valid. Enter Yes to continue with the installation if your authorization key is registered and loaded. If you enter No, the following message is displayed and the installation ends:

```
Installation of DECwindows Motif cannot continue because you do
not have a registered and loaded authorization key.
```

See Section 1.1 for more information about license registration. After you register and load your authorization key, restart the *Compaq DECwindows Motif for OpenVMS* installation beginning at step 4 in Section 3.2.2.

3.2.13 Performing a System Reboot

The installation procedure suggests that you perform a system reboot to ensure successful installation of *Compaq DECwindows Motif for OpenVMS* software:

```
  DECwindows Motif will not start if your system parameters are not
  correct.

  o If you allow a system shutdown, the installation procedure will
    reboot the system at the end of the installation.  If your system
    parameters are incorrect, the installation will run AUTOGEN prior
    to the system reboot.

  o If you do not allow a system shutdown, the installation procedure
    will continue, and you will be informed at the end of the
    installation whether you need to modify your system parameters in
    order to start DECwindows Motif.

  To complete the installation of this product, you should reboot
  the system.  If it is not convenient to reboot at this time, then
  enter No to the following question.

  If you enter No, the installation procedure will continue.

* Will you allow a system reboot after this product is installed [Yes]?
```

If you entered No to the shutdown question, no further questions are asked.

If you answered Yes to the shutdown question, the VMSINSTAL procedure displays the following questions about the shutdown:

```
* How many minutes for system shutdown [0]?
* Do you want to do an automatic system reboot [Yes]?

  No further questions will be asked.
```

Caution

To avoid confusion with file versions when activating an image or application, perform the necessary procedures to restart the *Compaq DECwindows Motif for OpenVMS* software as indicated during the installation in Section 3.2.15.

3.2.14 Reading Informational Messages

The VMSINSTAL procedure lists the directories that are created and the save sets that are restored. The VMSINSTAL procedure prints out a message indicating that the files will be moved to their target directories.

- If you perform the installation using media other than 9-track magnetic tape, messages similar to the following display:

```
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
VMI$ROOT:[DECW$INCLUDE.DECW$113].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
VMI$ROOT:[SYSEXE.DECW$113].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
VMI$ROOT:[SYSLIB.DECW$113].
%VMSINSTAL-I_RESTORE, Restoring product save set B ...
%VMSINSTAL-I_RESTORE, Restoring product save set C ...
%VMSINSTAL-I_RESTORE, Restoring product save set D ...
%VMSINSTAL-I-RESTORE, Restoring product save set E ...
%VMSINSTAL-I-RESTORE, Restoring product save set F ...
%VMSINSTAL-I-RESTORE, Restoring product save set G ...
%VMSINSTAL-I-RESTORE, Restoring product save set H ...
%VMSINSTAL-I-RESTORE, Restoring product save set I ...
%VMSINSTAL-I-RESTORE, Restoring product save set J ...
%VMSINSTAL-I-RESTORE, Restoring product save set L ...
%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target directories...
```

- If you perform the installation using 9-track magnetic tape, some of the files are compressed into text libraries. The installation procedure informs you that the data is being decompressed and displays messages similar to the following:

```
%VMSINSTAL-I_RESTORE, Restoring product save set B ...
%VMSINSTAL-I_RESTORE, Restoring product save set C ...
%VMSINSTAL-I_RESTORE, Restoring product save set D ...
%VMSINSTAL-I_RESTORE, Restoring product save set E ...
%VMSINSTAL-I-RESTORE, Restoring product save set F ...
%VMSINSTAL-I-RESTORE, Restoring product save set G ...
%VMSINSTAL-I-RESTORE, Restoring product save set H ...
%VMSINSTAL-I-RESTORE, Restoring product save set I ...
Decompressing H_E_DECW$INCLUDE
Decompressing H_E_SYSLIB
%VMSINSTAL-I_RESTORE, Restoring product save set J ...
%VMSINSTAL-I-RESTORE, Restoring product save set L ...
%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target directories...
```

The installation procedure then informs you that a spurious error message will be displayed, which you can safely ignore:

```
You can ignore the following NCP error message(s).

%NCP-I-SUCCESS,  Success
Object = X$X0
%NML-I-RECDELET, Database entry deleted
```

The installation procedure then reminds you to install the language variant product after the installation, if necessary.

```
If you wish to use any language other than English, install the appropriate
DECwindows Motif Version 1.2-6 language variant product after
this installation has completed.
```

You are notified that you should run the Installation Verification Procedure (IVP) after the installation is completed and after you start the DECwindows Motif software. (See Section 4.2 for more information about running the IVP.)

```
The Installation Verification Procedure (IVP) should be run after the
installation has been completed and DECwindows Motif has been restarted.
The IVP can be found in SYS$TEST:DECW$IVP.COM.
```

3.2.15 Using the AUTOGEN Utility to Set System Parameters

The installation procedure might automatically run AUTOGEN, depending on which type of system you are using:

- A nonworkstation system

  If you install *Compaq DECwindows Motif for OpenVMS* on a nonworkstation system (that is, an OpenVMS host system), the following message is displayed:

  ```
  This system is not a workstation.
  It will not be necessary to run AUTOGEN.
  ```

- A workstation system that runs *Compaq DECwindows Motif for OpenVMS* software with correct system parameters

  If you install *Compaq DECwindows Motif for OpenVMS* on a workstation system and your system parameters are correct, the following message is displayed:

  ```
  The installation procedure has determined that your system parameters are
  set correctly and that it will not be necessary to run AUTOGEN or reboot
  the system.

  If your system is already running DECwindows Motif, restart DECwindows
  Motif with the following DCL command:

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

```
If your system is NOT already running DECwindows Motif, start DECwindows
Motif with the following DCL command:

     $ @SYS$MANAGER:DECW$STARTUP

                          * * * N O T E * * *

If you are installing DECwindows Motif from your workstation console, log
off after you enter the command to start DECwindows Motif.
```

- A workstation system that runs *Compaq DECwindows Motif for OpenVMS* software with incorrect system parameters

  If you install *Compaq DECwindows Motif for OpenVMS* on a workstation system and your system parameters need to be reset, the following message is displayed:

```
The installation of DECwindows Motif has determined that some of your
system parameter values will require modification in order to start
Compaq DECwindows Motif for OpenVMS, Version 1.2--6.  To set your
parameters correctly, run AUTOGEN using the following DCL command:

        $ @SYS$UPDATE:AUTOGEN GETDATA REBOOT CHECK_FEEDBACK

This will adjust your system parameters and reboot the system.
```

- A workstation system that runs *Compaq DECwindows Motif for OpenVMS* with incorrect system parameters, and you answered Yes to a system shutdown

```
The OpenVMS AUTOGEN procedure will now be run to set your system
parameters. After that, your system will be automatically rebooted.

After the system has been rebooted, successful installation of the
workstation software will be indicated by the appearance of the
Start Session window.

%AUTOGEN-I-BEGIN, GETDATA phase is beginning.
 .
 .
 .
%AUTOGEN-I-BEGIN, GENPARAMS phase is beginning.
 .
 .
 .
%AUTOGEN-I-BEGIN, GENFILES phase is beginning.
 .
 .
 .
%AUTOGEN-I-BEGIN, SETPARAMS phase is beginning.
 .
 .
 .

       Installation of DWMOTIFVAXU6 V1.2 completed at 10:57
```

```
%VMSINSTAL-I-SHUTDOWN, This product requires that the system be rebooted.

       SHUTDOWN -- Perform an Orderly System Shutdown
                   on node NODE01
 .
 .
 .
```

3.2.16 Completing the Installation Procedure

When the installation is completed, a message similar to the following is displayed:

```
Installation of DWMOTIFVAXU6 V1.2 completed at 10:57

VMSINSTAL procedure done at 12:45
```

These messages indicate that the installation procedure completed successfully.

Your system automatically shuts down if AUTOGEN is run; you must then reboot your system. See the upgrade and installation supplement for your VAX processor for instructions on how to reboot your system.

Note

If you upgrade your system with a higher version of OpenVMS at a later time, you might need to reinstall the *Compaq DECwindows Motif for OpenVMS* software.

3.3 Recovering from Errors

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

- Incorrect OpenVMS operating system version.
- Insufficient quotas.
- Insufficient values for system parameters.
- OpenVMS help library is currently in use.
- Product license is not registered and loaded.

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.

3.4 Accessing the Release Notes

During the installation, the VMSINSTAL procedure copies the *Compaq DECwindows Motif for OpenVMS Release Notes* to the SYS$HELP:DECW$MOTIFU6012.RELEASE_NOTES file. Once you return to DCL level, you can print this file or display it at a terminal. Refer to Section 3.2.5 for more information about accessing the release notes.

4
After Installing the Software

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

- Section 4.1, Starting the DECwindows Motif Software
- Section 4.2, Running the IVP
- Section 4.3, Choosing an Alternate Console
- Section 4.4, Selecting the Desktop (Alpha Only)

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*.

4.1 Starting the DECwindows Motif Software

If you perform a system reboot following the installation of DECwindows Motif, the DECwindows startup procedure runs automatically when the system reboots. On OpenVMS Alpha systems, 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 4.4 for more information.) On OpenVMS VAX systems the Start Session dialog box is displayed. Proceed to Section 4.2 if you allowed a system reboot and DECwindows has successfully started.

If you chose not to reboot the system after the installation, you must start or restart the DECwindows Motif software by running the DECwindows startup procedure, as described in the following paragraphs. When the startup procedure has successfully completed, either the New Desktop login dialog box or the DECwindows desktop Start Session dialog box is displayed, as explained in the previous paragraph.

After Installing the Software
4.1 Starting the DECwindows Motif Software

Compaq DECwindows Motif for OpenVMS software can be started only if your system parameters are correct. Proceed to one of the following sections if your system parameters are correct:

- Section 4.1.1, Standalone Systems
- Section 4.1.2, OpenVMS Cluster Systems

If your system parameters are not correct, then use one of the following methods to adjust them accordingly:

- Invoke the AUTOGEN utility:

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

- Attempt to start the DECwindows Motif software. The DECwindows Motif startup procedure checks your system parameters. If they are too low, the procedure displays a series of messages describing the required system parameters. These same parameters are adjusted in the system's MODPARAMS.DAT file. Then the procedure displays following:

```
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 run or cause a reboot, but DECwindows
will not start.

To run AUTOGEN at a later date, enter the following command:

  $ @SYS$UPDATE:AUTOGEN getdata reboot check_feedback

Do you want the system to run AUTOGEN for you [Yes]?
```

After the system is rebooted and the startup is completed, the Start Session dialog box displays.

The *Compaq DECwindows Motif for OpenVMS* software is now installed and running on your system.

Run the Installation Verification Procedure (IVP) as described in Section 4.2 to verify that the installation of *Compaq DECwindows Motif for OpenVMS* software is complete and accurate.

4.1.1 Standalone Systems

Perform one of the following procedures to start your DECwindows Motif software on a standalone system:

- If your system is not running DECwindows Motif, then start DECwindows Motif with the following command:

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

- If your system is currently running DECwindows Motif, then restart DECwindows Motif with the following command:

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

Note

If your system has a workstation display, then the command to restart DECwindows Motif will end your current session. The Start Session dialog box displays on your terminal, and you must log back in to continue using DECwindows Motif.

The *Compaq DECwindows Motif for OpenVMS* software is now installed and running on your system.

Run the IVP as described in Section 4.2 to verify that the installation of *Compaq DECwindows Motif for OpenVMS* is complete and accurate.

4.1.2 OpenVMS Cluster Systems

Starting *Compaq DECwindows Motif for OpenVMS* on nonsatellite and satellite nodes is described in the sections that follow.

4.1.2.1 Starting Nonsatellite and Boot Nodes

To start *Compaq DECwindows Motif for OpenVMS* software on each of the nonsatellite nodes within your cluster, perform one of the following procedures:

- If your system is not running DECwindows Motif, then start DECwindows Motif with the following command:

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

- If your system is currently running DECwindows Motif, then restart DECwindows Motif with the following command:

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

Note

If the nonsatellite node or boot node has a workstation display, then the command to restart DECwindows Motif will end your current session. The Start Session dialog box displays on your terminal; log in again to continue using DECwindows Motif.

The *Compaq DECwindows Motif for OpenVMS* software is now installed and running on your system.

Run the IVP as described in Section 4.2 to verify that the installation of the *Compaq DECwindows Motif for OpenVMS* product is complete and accurate.

4.1.2.2 Starting Satellite Nodes

To start the *Compaq DECwindows Motif for OpenVMS* software that is installed on the boot node, perform one of the following procedures on each satellite node in the cluster that will run *Compaq DECwindows Motif for OpenVMS* software:

- If the node is not running DECwindows Motif, then start DECwindows Motif with the following command:

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

- If the node is currently running DECwindows Motif, then restart DECwindows Motif with the following command:

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

Once DECwindows Motif is started or restarted on each node in the OpenVMS Cluster, then the installation is considered complete. Now run the IVP as described in Section 4.2.

4.2 Running the IVP

Run the IVP, SYS$TEST:DECW$IVP.COM, after you install and start the *Compaq DECwindows Motif for OpenVMS* product. This procedure contains four tests, which verify that the software installation is complete and accurate.

First, the IVP procedure attempts to run two display-oriented tests. When you invoke the IVP, it identifies your type of hardware.

- If you are using a workstation, you are asked where the display-oriented tests should display. Your current workstation is the default.

- If you are not using a workstation, the procedure prompts you for a display name.

Press Ctrl/Z at the prompt if you do not want to run the display-oriented tests. The IVP runs these tests only if the images exist on the system. If the IVP does not find the images, a message displays to inform you that the tests will not be run.

Note

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

```
$ SET DISPLAY/CREATE/NODE=LAT_nnnnnnnnnnn/TRANSPORT=LAT
```

Substitute your actual LAT terminal number for *nnnnnnnnnn*.

Enter the default at the _Display: prompt.

Next, 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.

Example 4–1 shows you how to run the IVP.

Example 4–1 Sample IVP

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

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Compaq DECwindows Motif for OpenVMS 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.
```

(continued on next page)

Example 4–1 (Cont.) Sample IVP

```
This machine is not a workstation.  Please provide the nodename 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::0.0

%DECW-I-IVP, The IVP will display on NODE33::0.0
%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
%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.
$
```

4.3 Choosing an Alternate Console

The *Compaq DECwindows Motif for OpenVMS* 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.

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

4.4 Selecting the Desktop (Alpha Only)

On OpenVMS Alpha systems, *Compaq DECwindows Motif for OpenVMS* 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 SYS$MANAGER:DECW$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 SYS$MANAGER:DECW$PRIVATE_APPS_SETUP.TEMPLATE -
   _$ SYS$COMMON:[SYSMGR]DECW$PRIVATE_APPS_SETUP.COM
   ```

2. Edit SYS$MANAGER:DECW$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 wish the DECwindows desktop as the default, enter the following global symbol definition:

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

3. Restart DECwindows using the following command:

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

5
Managing DECwindows Motif Software

This chapter contains information about managing the performance of your *Compaq DECwindows Motif for OpenVMS* software. It also describes how to add and remove DECwindows Motif files from your system disk using tailoring utilities. See *Managing DECwindows Motif for OpenVMS Systems* for additional system management information.

The following topics are discussed in this chapter:

- Section 5.1, Customizing the DECwindows X11 Display Server Startup Procedure
- Section 5.2, Using the DECW$MOTIF_TAILOR Utility (VMS Version 5.5–2 Only)
- Section 5.3, Adding DECwindows Base-Support Files
- Section 5.4, Determining and Reporting Problems

After you install the *Compaq DECwindows Motif for OpenVMS* product, you can tune your system to enhance performance or to decrease the use of some system resources. For information about tuning your system, see *Managing DECwindows Motif for OpenVMS Systems*.

5.1 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.

Note

Start the DECwindows X11 display server on workstation systems only.

Managing DECwindows Motif Software
5.1 Customizing the DECwindows X11 Display Server Startup Procedure

The 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 following:

- Whether you have a 75-dpi or 100-dpi monitor
- Whether you have a North American keyboard layout (such as for an LK201–AA or –LA or an LK401–AA or –LA keyboard)
- Whether the DECwindows X11 display server uses only DECnet for OpenVMS software and local transports
- Whether the DECwindows X11 display server logs both successful and unsuccessful connect and disconnect messages to the DECW$SERVER_*n*_ERROR.LOG file

To ensure that the DECwindows X11 display server is set up correctly, modify 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.

   You can add setup options in either of two sections in the server startup file. Setup options added to the ‘‘Cluster Common or Standalone Workstation 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*.

2. If your screen supports 100 dots-per-inch, add the following line:

   ```
   $ DECW$SERVER_DENSITY == "100"
   ```

   Add this line to the section for each workstation that has a 100 dots-per-inch monitor, or add it to the common section for all workstations (if all the workstations have 100-dpi monitors).

3. If you want the server to log successful connect and disconnect messages, add the following line:

   ```
   $ DECW$SERVER_CONNECT_LOG == "TRUE"
   ```

4. Add the following line to the section for monochrome GPX workstations:

   ```
   $ DECW$COLOR == "FALSE"
   ```

   No modification is necessary for grayscale (intensity) screens.

5. Add the following line to the section for workstations with keyboards that are not North American LK201 models:

   ```
   $ DECW$DEFAULT_KEYMAP == "xxxxx"
   ```

   In the previous line, replace *xxxxx* with the correct DECwindows keymap name. You can determine the correct name from the model number of your LK201 or LK401 keyboard. Turn the keyboard upside down and look for a label that specifies the model number. The model number is in a format similar to LK201–*xx* or LK401–*xx*. The model number may also be listed as LK201 or LK401. In this case, the *xx* that you need is in another part of the label where there is a number that looks similar to the following:

   nn-nnnnn-xx

   Use the *xx* part of this number to choose a keymap name from Table 5–1. Choose the keymap ending in _DP for data-processing keyboard layout and the keymap ending in _TW for typewriter layout.

   Table 5–1 is arranged according to the dialect for which each keyboard is designed.

   After you choose a keymap name, modify the DECwindows X11 display server startup file. For example, to change the keyboard layout to a Dutch typewriter layout, add the following line to the DECwindows X11 display server startup file:

   ```
   $ DECW$DEFAULT_KEYBOARD_MAP == "DUTCH_LK201LH_TW"
   ```

   Add a similar line for each workstation that does not have a North American keyboard layout or add the line to the common section for all workstations (if all the workstations use the same keyboard layout).

6. Enter the following command to restart DECwindows Motif on the workstations for which you customized the server startup by using the following command:

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

Table 5–1 DECwindows Keymap

Dialect	Model	DECwindows Keymap
Austrian/German	LK201-(AG,LG,BG,MG)	AUSTRIAN_GERMAN_LK201LG_DP
		AUSTRIAN_GERMAN_LK201LG_TW
	LK201-(NG,PG)	AUSTRIAN_GERMAN_LK201NG_DP
		AUSTRIAN_GERMAN_LK201NG_TW
	LK401-(AG)	AUSTRIAN_GERMAN_LK401AG_TW
Belgian/French	LK201-(AP,LP,BP,MP)	BELGIAN_FRENCH_LK201LP_DP
		BELGIAN_FRENCH_LK201LP_TW
Belgian/French	LK401-(AP)	BELGIAN_FRENCH_LK401AP_DP
		BELGIAN_FRENCH_LK401AP_TW
British	LK201-(AE,LE,BE,ME)	BRITISH_LK201LE_DP
		BRITISH_LK201LE_TW
British	LK401-(AA,PA)	BRITISH_LK401AA_DP
		BRITISH_LK401AA_TW
Canadian/French	LK201-(AC,LC,BC,MC)	CANADIAN_FRENCH_LK201LC_DP
		CANADIAN_FRENCH_LK201LC_TW
Canadian/French	LK401-(AC,LC,BC,MC)	CANADIAN_FRENCH_LK401AC_DP
		CANADIAN_FRENCH_LK401AC_TW
Danish	LK201-(AD,LD,BD,MD)	DANISH_LK201LD_DP
		DANISH_LK201LD_TW
	LK201-(ED,RD,FD)	DANISH_LK201RD_DP
		DANISH_LK201RD_TW
Danish	LK401-(AD,LD,BD,MD)	DANISH_LK401AD_DP
		DANISH_LK401AD_TW
Dutch	LK201-(AH,LH,BH,MH)	DUTCH_LK201LH_DP
		DUTCH_LK201LH_TW
	LK201-(NH,PH)	DUTCH_LK201NH
	LK401-(NH,PH)	DUTCH_LK401AH
Finnish	LK201-(AF,LF,BF,MF)	FINNISH_LK201LF_DP
		FINNISH_LK201LF_TW

(continued on next page)

Table 5–1 (Cont.) DECwindows Keymap

Dialect	Model	DECwindows Keymap
	LK201-(NX,PX)	FINNISH_LK201NX_DP
		FINNISH_LK201NX_TW
Finnish	LK401-(AF,LF,BF,MF)	FINNISH_LK401AF_DP
		FINNISH_LK401AF_TW
Flemish	LK201-(AB,LB,BB,MB)	FLEMISH_LK201LB_DP
		FLEMISH_LK201LB_TW
Flemish	LK401-(AB,LB,BB,MB)	FLEMISH_LK401AB_DP
		FLEMISH_LK401AB_TW
Icelandic	LK201-(AU,LU,BU,MU)	ICELANDIC_LK201LU_DP
		ICELANDIC_LK201LU_TW
Italian	LK201-(AI,LI,BI,MI)	ITALIAN_LK201LI_DP
		ITALIAN_LK201LI_TW
Italian	LK401-(AI,LI,BI,MI)	ITALIAN_LK401AI_DP
		ITALIAN_LK401AI_TW
North American	LK201-(AA,LA,BA,MA)	NORTH_AMERICAN_LK201LA
North American	LK401-(AA,LA,BA,MA)	NORTH_AMERICAN_LK401AA
Norwegian	LK201-(AN,LN,BN,MN)	NORWEGIAN_LK201LN_DP
		NORWEGIAN_LK201LN_TW
	LK201-(EN,RN,FN)	NORWEGIAN_LK201RN_DP
		NORWEGIAN_LK201RN_TW
Norwegian	LK401-(AN,LN,BN,MN)	NORWEGIAN_LK401AN_DP
		NORWEGIAN_LK401AN_TW
Portuguese	LK201-(AV,LV,BV,MV)	PORTUGUESE_LK201LV
Portuguese	LK401-(AV,LV,BV,MV)	PORTUGUESE_LK401AV
Spanish	LK201-(AS,LS,BS,MS)	SPANISH_LK201LS_DP
		SPANISH_LK201LS_TW
Spanish	LK401-(AS,LS,BS,MS)	SPANISH_LK401AS_DP
		SPANISH_LK401AS_TW
Swedish	LK201-(AM,LM,BM,MM)	SWEDISH_LK201LM_DP

(continued on next page)

Table 5–1 (Cont.) DECwindows Keymap

Dialect	Model	DECwindows Keymap
		SWEDISH_LK201LM_TW
	LK201-(NM,PM)	SWEDISH_LK201NM_DP
		SWEDISH_LK201NM_TW
Swedish	LK401-(AM,LM,BM,MM)	SWEDISH_LK401AM_DP
		SWEDISH_LK401AM_TW
Swiss/French	LK201-(AK,LK,BK,MK)	SWISS_FRENCH_LK201LK_DP
		SWISS_FRENCH_LK201LK_TW
Swiss/French	LK401-(AK,LK,BK,MK)	SWISS_FRENCH_LK401AK_DP
		SWISS_FRENCH_LK401AK_TW
Swiss/German	LK201-(AL,LL,BL,ML)	SWISS_GERMAN_LK201LL_DP
		SWISS_GERMAN_LK201LL_TW
Swiss/German	LK401-(AL,LL,BL,ML)	SWISS_GERMAN_LK401AL_DP
		SWISS_GERMAN_LK401AL_TW
Combined US/UK	LK201-(EE,RE,PE)	UK_LK201RE
		US_LK201RE
Combined US/UK	LK401-(EE,RE,PE)	UK_LK401AA
		US_LK401AA

5.2 Using the DECW$MOTIF_TAILOR Utility (VMS Version 5.5–2 Only)

Use the DECW$MOTIF_TAILOR utility to remove DECwindows Motif files from the system disk (for example, support files for the Toolkit, applications, and programming). If you later decide that you want DECwindows Motif programming support, add the files to the system disk by reinstalling the system. See Section 5.3 for information about adding files.

Note

Use the DECW$MOTIF_TAILOR utility only if you installed the DECwindows Motif for OpenVMS kit using VMSINSTAL. If you installed the *Compaq DECwindows Motif for OpenVMS* kit using the POLYCENTER Software Installation utility (PCSI), remove files using the PCSI commands PRODUCT REMOVE or PRODUCT RECONFIGURE. (For more information on PCSI commands, enter

5.2 Using the DECW$MOTIF_TAILOR Utility (VMS Version 5.5–2 Only)

HELP PRODUCT at the DCL prompt or refer to the *POLYCENTER Software Installation Utility User's Guide*.)

The DECW$MOTIF_TAILOR process includes two phases:

- The first phase lists each class of DECwindows Motif files and asks whether you want to delete the class from the system disk.
- The second phase deletes the files you indicated from the system disk.

Table 5–2 lists the classes (or groups) and subclasses of DECwindows Motif files that you can delete using the DECW$MOTIF_TAILOR utility. For a list of DECwindows Motif files and their descriptions and classes, see Appendix C.

Table 5–2 Classes of OpenVMS Files That Can Be Removed with the DECW$MOTIF_TAILOR Utility

Class	Subclass	Description
VMS DECwindows run-time support	No subclasses in this tailor class	DECwindows Motif run-time support.
VMS DECwindows CDA support	No subclasses in this tailor class	DECwindows Motif CDA support.
VMS DECwindows Motif applications files	DECwindows Motif computer-based instruction (CBI)	The DECwindows Motif applications files provide a variety of applications.
DECwindows Motif C programming support files	No subclasses in this tailor class	DECwindows Motif C programming support files are needed only to develop applications and are not required to run DECwindows Motif applications. These files are provided for programming in the C language using conventions and standards developed at the Massachusetts Institute of Technology (MIT).
DECwindows FORTRAN programming support files	No subclasses in this tailor class	FORTRAN support files are provided for this programming language. The files are needed only to develop applications and are not required to run DECwindows Motif applications.

(continued on next page)

Table 5–2 (Cont.) Classes of OpenVMS Files That Can Be Removed with the DECW$MOTIF_TAILOR Utility

Class	Subclass	Description
DECwindows Pascal programming support files	No subclasses in this tailor class	Pascal support files are provided for this programming language. The files are needed only to develop applications and are not required to run DECwindows Motif applications.
DECwindows Motif example files	No subclasses in this tailor class	DECwindows Motif example files.
Sound editor support files	No subclasses in this tailor class	Sound-editor support files.
NCSA Mosaic	No subclasses in this tailor class	NCSA Mosaic web browser.

Removing DECwindows Motif Files from the System Disk

To remove DECwindows Motif files from the system disk, do the following:

1. Log in to the SYSTEM account.
2. Enter the following command at the DCL prompt:

   ```
   $ RUN SYS$UPDATE:DECW$MOTIF_TAILOR
   ```

   After a brief overview, the DECW$MOTIF_TAILOR utility lists each group, or class, of files and its size in blocks. Files are grouped according to their function. For example, all the files required for DECwindows for OpenVMS device support are in one class. A file class is made up of many small subclasses. You can eliminate an entire class of files, or you can eliminate one or more of its subclasses. For example:

   ```
   CLASS - VMS DECwindows Motif applications files
               Size of entire class (with subclasses): 12181
               Size of common files required for any subclass: 11160
               Do you wish to select the entire class (default = NO)?
               Do you wish to select any of its subclasses (default = NO)?
            .
            .
            .
   ```

3. Decide which file classes or subclasses you do not need to support your system. The DECW$MOTIF_TAILOR utility displays step-by-step instructions. Follow these instructions to specify which of the classes or subclasses you want to remove.

4. The DECW$MOTIF_TAILOR utility deletes the files you select and displays the names of those files.

You can ignore ‘‘file not found’’ messages in the log files; tailoring functions are not affected by these messages. The installation procedure deletes files that it does not read.

Caution

To cancel DECW$MOTIF_TAILOR during the first phase, press Ctrl/C, Ctrl/Y, or Ctrl/Z. If you cancel DECW$MOTIF_TAILOR during the second phase, a partially tailored disk may result. For a description of both phases, see Section 5.2.

Example 5–1 shows how to use DECW$MOTIF_TAILOR to remove files from a system disk.

Example 5–1 Sample DECW$MOTIF_TAILOR Session

```
$ RUN SYS$UPDATE:DECW$MOTIF_TAILOR
   .
   .
   .

TAILOR-OFF
----------
 You will now be prompted with a list of the classes and subclasses of
 DECwindows files that are optional. The size of each class and subclass is
 included in the list. This will help you decide whether or not you want to
 remove a class or subclass from your system.

 Under some classes there is a set of common files that is required in order
 for any subclasses to work. These files will only be deleted if you remove
 the ENTIRE class. If you choose to keep any subclass, this set of files is
 not deleted.

 NOTE: The files associated with selected classes and subclasses will
       be removed from your system.

Total size of the system disk is 2050860 blocks.
Total space used on the system disk is 684720 blocks.
Total space left on the system disk is 1366140 blocks.
```

(continued on next page)

Example 5–1 (Cont.) Sample DECW$MOTIF_TAILOR Session

```
CLASS - VMS DECwindows Runtime Support
          Size of entire class (with subclasses): 27303
          No subclasses in this tailor class.
          Do you wish to select the entire class (default = NO)? Return

CLASS - VMS DECwindows CDA Support
          Size of entire class (with subclasses): 3625
          No subclasses in this tailor class.
          Do you wish to select the entire class (default = NO)? Yes

CLASS - VMS DECwindows Motif applications files
          Size of entire class (with subclasses): 12181
      Size of common files required for any subclass: 11160
      Do you wish to select the entire class (default = NO)? Return
      Do you wish to select any of its subclasses (default = NO)? Return

CLASS - DECwindows C programming support files
          Size of entire class (with subclasses): 6727
      No subclasses in this tailor class.
          Do you wish to select the entire class (default = NO)? Yes

CLASS - DECwindows FORTRAN programming support files
          Size of entire class (with subclasses): 2404
      No subclasses in this tailor class.
          Do you wish to select the entire class (default = NO)? Yes

CLASS - DECwindows Pascal programming support files
          Size of entire class (with subclasses): 3009
      No subclasses in this tailor class.
          Do you wish to select the entire class (default = NO)? Return

CLASS - DECwindows Motif example files
          Size of entire class (with subclasses): 9535
      No subclasses in this tailor class.
          Do you wish to select the entire class (default = NO)? Yes

CLASS - Sound editor support files
          Size of entire class (with subclasses): 1776
      No subclasses in this tailor class.
          Do you wish to select the entire class (default = NO)? Yes


CLASS - NCSA Mosaic
          Size of entire class (with subclasses): 1168
      No subclasses in this tailor class.
          Do you wish to select the entire class (default = NO)? Return
```

(continued on next page)

Example 5–1 (Cont.) Sample DECW$MOTIF_TAILOR Session

```
Files have been selected
Do you wish to remove all of the options selected? Return
Do you wish to remove all of the options selected? Yes
Removing files, please wait...
%VMSTLR-I-DELFILE, deleting file: SYS$SYSROOT:[CDA$LIBRARY]DEFSTYLE.DDIF;*
%VMSTLR-I-DELFILE, deleting file: SYS$SYSROOT:[DECW$DEFAULTS.SYSTEM]DDIF$CSW.UID;*
%VMSTLR-I-DELFILE, deleting file: SYS$SYSROOT:[DECW$DEFAULTS.SYSTEM]DDIF$VIEW.UID;*
%VMSTLR-I-DELFILE, deleting file: SYS$SYSROOT:[DECW$DEFAULTS.SYSTEM]DDIF$VIEWWGT.UID;*
%VMSTLR-I-DELFILE, deleting file: SYS$SYSROOT:[DECW$DEFAULTS.SYSTEM]DDIF$VIEWWGT12.UID;*
%VMSTLR-I-DELFILE, deleting file: SYS$SYSROOT:[SYSEXE]CDA$CONVERT.EXE;*
.
.
.
```

5.3 Adding DECwindows Base-Support Files

If you previously chose not to install or if you removed DECwindows base-support software, perform one of the following procedures to add DECwindows base-support files:

- On OpenVMS Alpha systems, reconfigure the operating system specifying that you want DECwindows Motif support.
- On OpenVMS VAX systems, use the SYS$UPDATE:DECW$TAILOR.EXE procedure to add or remove support files from the system disk.

5.3.1 Reconfiguring the OpenVMS Operating System (Alpha Only)

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

5.3.2 Using the SYS$UPDATE:DECW$TAILOR.EXE Command (VAX Only)

You can use the DECW$TAILOR utility to add or remove some or all DECwindows base-support files from the system disk.

DECW$TAILOR is similar to DECW$MOTIF_TAILOR. However, the DECW$TAILOR utility is used to add or remove files that support the DECwindows display server (for example: base-support, workstation, and font files).

DECW$TAILOR includes three phases:

- The first phase asks whether you want to tailor your system by adding files (‘‘tailor on’’) or by deleting files (‘‘tailor off’’).

- In the second phase, if you choose the tailor-on procedure, DECW$TAILOR lists each class of DECwindows files and asks whether you want to include them on the system disk. If you choose the tailor-off procedure, DECW$TAILOR lists each class of DECwindows files and asks whether you want to delete them from the system disk.
- In the third phase, DECW$TAILOR carries out your instructions.

Note

To cancel DECW$TAILOR during the first and second phases, press Ctrl/C, Ctrl/Y, or Ctrl/Z. If you cancel DECW$TAILOR during the third phase, a partially tailored disk may result.

Table 5–3 lists the classes and subclasses of DECwindows files that you can add or remove from your system using DECW$TAILOR.

Note

VMS Version 5.5–2 uses different class names. These are shown in parentheses below the name used in Version 6.2 and Version 7.1.

Table 5–3 Classes of Files That Can Be Added or Removed with the DECW$TAILOR Utility

Class	Subclass	Description
DECwindows base support files (DECwindows applications files)	No subclasses in this tailor class	Files necessary to run the DECwindows Motif client and DECwindows display server.
DECwindows workstation support files (DECwindows device support files)	PEX for PHIGS support files	Files necessary to run the DECwindows display server; the PEX subclass includes support files for three-dimensional graphics.
75-dpi video font files	No subclasses in this tailor class	Device support files for 75-dpi monitors.

(continued on next page)

Table 5–3 (Cont.) Classes of Files That Can Be Added or Removed with the DECW$TAILOR Utility

Class	Subclass	Description
100-dpi video font files	No subclasses in this tailor class	Device support files for 100-dpi monitors.

Adding DECwindows Files to the System Disk

To add DECwindows files to the system disk, perform the following steps:

1. Log in to the SYSTEM account.
2. Enter the following command at the DCL prompt to invoke the utility:

   ```
   $ RUN SYS$UPDATE:DECW$TAILOR
   ```

   After a brief overview, the DECW$TAILOR program lists each group, or class, of files and its size in blocks. Files are grouped according to their function. For example, all the files required for DECwindows device support are in one class. A file class is made up of many small subclasses. You can eliminate an entire class of files, or you can eliminate one or more of its subclasses. For example:

   ```
   CLASS - DECwindows device support files
             Size of entire class (with subclasses): 14107
             Size of common files required for any subclass: 10645
             Do you wish to select the entire class (default = NO)?
             Do you wish to select any of its subclasses (default = NO)?
      .
      .
      .
   ```

3. Decide which file classes or subclasses are needed to support your system. DECW$TAILOR displays step-by-step instructions. Follow these instructions to specify which of the classes or subclasses you want to add.

Caution

To cancel DECW$TAILOR during this phase, press Ctrl/C, Ctrl/Y, or Ctrl/Z. If you cancel DECW$TAILOR following this class selection phase, a partially tailored disk may result.

4. DECW$TAILOR creates a temporary command file and asks for the name of the device that contains the distribution media.

Note

The distribution media is the OpenVMS distribution media that contains the DECwindows save sets.

5. DECW$TAILOR adds the files you selected and displays the names of those files.

Example 5–2 shows how to use DECW$TAILOR to add files to a system disk. The example was run on a VMS 5.5–2 system.

Example 5–2 Sample DECW$TAILOR Session

```
$ RUN SYS$UPDATE:DECW$TAILOR
   .
   .
   .
 Do you want to tailor files "ON" or "OFF"? ON

TAILOR-ON
---------
 You will now be prompted with a list of the classes and subclasses
 of DECwindows files that are optional. The size of each class and subclass is
 included in the list. This will help you decide whether or not you want to add
 a class or subclass to your system.

 Under some classes, there is a set of common files that is required in order
 for any subclasses to work. These files are added when you ask
 for either the entire class or any of its subclasses.

Total size of the system disk is 1216665 blocks.
Total space used on the system disk is 1121958 blocks.
Total space left on the system disk is 94707 blocks.

CLASS - DECwindows applications files
          Size of entire class (with subclasses): 11544
          No subclasses in this tailor class.
          Do you wish to select the entire class (default = NO)? YES
```

(continued on next page)

Example 5–2 (Cont.) Sample DECW$TAILOR Session

```
CLASS - DECwindows device support files
          Size of entire class (with subclasses): 14107
          Size of common files required for any subclass: 10645
          Do you wish to select the entire class (default = NO)? Return
          Do you wish to select any of its subclasses (default = NO)? Return

CLASS - 75 dots per inch video font files
          Size of entire class (with subclasses): 2539
          No subclasses in this tailor class.
          Do you wish to select the entire class (default = NO)? Return

CLASS - 100 dots per inch video font files
          Size of entire class (with subclasses): 3829
          No subclasses in this tailor class.
          Do you wish to select the entire class (default = NO)? Return


CLASS - DECwindows programming support files
          Size of entire class (with subclasses): 26208
          Size of common files required for any subclass: 924
          Do you wish to select the entire class (default = NO)? Return
          Do you wish to select any of its subclasses (default = NO)? Return

CLASS - Example files
          Size of entire class (with subclasses): 3160
          No subclasses in this tailor class.
          Do you wish to select the entire class (default = NO)? Return
Files have been selected
Do you wish to add all of the options selected? YES
Creating temporary command file, please wait...
* Enter device containing DECwindows distribution media:
   .
   .
   .
```

5.4 Determining and Reporting Problems

If you encounter a problem while using DECwindows Motif, report it to Compaq. Review the *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 Compaq 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 Installations

This appendix contains sample installations of the *Compaq DECwindows Motif for OpenVMS* software on the following OpenVMS systems:

- Section A.1 presents a sample DECwindows Motif installation on an OpenVMS Alpha Version 7.1–2 operating system.
- Section A.2 presents a sample DECwindows Motif installation on an OpenVMS VAX Version 7.1 operating system.
- Section A.3 presents a sample DECwindows Motif installation on an OpenVMS Alpha Version 6.2 operating system.

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

The sample installations assume that you have set the default directory to the device name and directory containing the PCSI ECO and DECwindows Motif savesets. (The PCSI ECO is only required for the supported versions of OpenVMS prior to Version 7.2. See the *Guide to the Compaq DECwindows Motif for OpenVMS CD–ROM* for details about this ECO.)

A.1 Sample Installation on an OpenVMS Alpha Version 7.1–2 System

Example A–1 contains a sample installation of the mandatory PCSI ECO. Example A–2 contains a sample installation of the *Compaq DECwindows Motif for OpenVMS* software on an OpenVMS Alpha Version 7.1–2 operating system with sufficient system resources.

Example A–1 Sample Installation of the Mandatory ECO for PCSI on an OpenVMS Alpha System

```
          Welcome to the OpenVMS Alpha Operating System, Version 7.1

$ PRODUCT INSTALL VMS62TO71U2_PCSI Return

The following product has been selected:
    DEC AXPVMS VMS62TO71U2_PCSI V1.0        Patch (maintenance update)

Do you want to continue? [YES] Return

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 VMS62TO71U2_PCSI V1.0

* This product does not have any configuration options.

Execution phase starting ...

The following product will be installed to destination:
    DEC AXPVMS VMS62TO71U2_PCSI V1.0        DISK$2:[VMS$COMMON.]

Portion done: 0%
...10%
...20%
...40%
...50%
...80%
...90%
...100%

The following product has been installed:
    DEC AXPVMS VMS62TO71U2_PCSI V1.0        Patch (maintenance update)
```

Example A–2 Sample Installation of an Upgrade of DECwindows Motif on an OpenVMS Alpha Version 7.1–2 System With Sufficient System Resources

```
$ PRODUCT INSTALL DWMOTIF Return

The following product has been selected:
    DEC AXPVMS DWMOTIF V1.2-6              Layered Product

Do you want to continue? [YES] Return

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 V1.2-6: DECwindows Motif

    Copyright 2000 Compaq Computer Corporation

    Compaq Computer Corporation

    This product uses the PAK: DW-MOTIF

Checking values of system parameters...
                                       OK

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

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

    Do you want to continue? [YES] Return

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

DEC AXPVMS DWMOTIF V1.2-6: DECwindows Motif
    DEC AXPVMS VMS V7.1 [Installed]
    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
```

(continued on next page)

Example A–2 (Cont.) Sample Installation of an Upgrade of DECwindows Motif on an OpenVMS Alpha Version 7.1–2 System With Sufficient System Resources

```
      Programming examples for the New Desktop: YES

Are you satisfied with these options? [YES]  Return

Execution phase starting ...

The following product will be installed to destination:
    DEC AXPVMS DWMOTIF V1.2-6             DISK$2:[VMS$COMMON.]
The following product will be removed from destination:
    DEC AXPVMS DWMOTIF V1.2-5             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:
    DEC AXPVMS DWMOTIF V1.2-6             Layered Product
The following product has been removed:
    DEC AXPVMS DWMOTIF V1.2-5             Layered Product

DEC AXPVMS DWMOTIF V1.2-6: DECwindows Motif

    System reboot will be required following upgrade of language variants.

    Installation Verification Procedure can be run after reboot.
$ Logout  Return
```

A.2 Sample Installation on an OpenVMS VAX Version 7.1 System

Example A–3 contains a sample installation of the *Compaq DECwindows Motif for OpenVMS* software on an OpenVMS VAX Version 7.1 operating system with insufficient system resources.

Example A–3 Sample Installation of an Upgrade of *Compaq DECwindows Motif for OpenVMS* on an OpenVMS VAX Version 7.1 System With Insufficient System Resources

```
The following product has been selected:
    DEC VAXVMS DWMOTIF V1.2-6              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 VAXVMS DWMOTIF V1.2-6: DECwindows Motif

 Copyright 2000 Compaq Computer Corporation

    Compaq Computer Corporation

    This product uses the PAK: DW-MOTIF

Checking values of system parameters...
  %DECW-W-BADVALUE, SYSGEN parameter PQL_MBYTLM is 40000, should be at least 48000

  The installation procedure has determined that some system parameter values
  require modification to install the DECwindows Motif Version 1.2-6 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 V1.2-6.

        @SYS$UPDATE:AUTOGEN GETDATA REBOOT CHECK_FEEDBACK

The DECwindows installation is being terminated.

Please run AUTOGEN and restart the installation.
```

(continued on next page)

Example A–3 (Cont.) Sample Installation of an Upgrade of *Compaq DECwindows Motif for OpenVMS* on an OpenVMS VAX Version 7.1 System With Insufficient System Resources

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

  SYSTEM       logged out at 20-NOV-2000 17:03:49.25
```

At this point, run AUTOGEN and then restart the installation.

```
The following product has been selected:
    DEC VAXVMS DWMOTIF V1.2-6              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 VAXVMS DWMOTIF V1.2-6: DECwindows Motif

Copyright 2000 Compaq Computer Corporation

    Compaq Computer Corporation

    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 Return

DEC VAXVMS DWMOTIF V1.2-6: DECwindows Motif
    DEC VAXVMS VMS V7.1 [Installed]
    DECwindows Motif runtime support files: YES
          Programming Support for the C Language: YES
    Programming Support for the FORTRAN Language: YES
    Programming Support for the Pascal Language: YES
    Programming examples: YES
```

(continued on next page)

Example A–3 (Cont.) Sample Installation of an Upgrade of *Compaq DECwindows Motif for OpenVMS* on an OpenVMS VAX Version 7.1 System With Insufficient System Resources

```
Are you satisfied with these options? [YES] Return
Execution phase starting ...

The following product will be installed to destination:
    DEC VAXVMS DWMOTIF V1.2-6             DISK$VAX71_124_P2:[VMS$COMMON.]
The following product will be removed from destination:
    DEC VAXVMS DWMOTIF V1.2-5             DISK$VAX71_124_P2:[VMS$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:
    DEC VAXVMS DWMOTIF V1.2-6             Layered Product
The following product has been removed:
    DEC VAXVMS DWMOTIF V1.2-5             Layered Product

DEC VAXVMS DWMOTIF V1.2-6: DECwindows Motif

    System reboot will be required following upgrade of language variants.

    Installation Verification Procedure can be run after reboot.
       DEC VAXVMS DWMOTIF V1.2-6: DECwindows Motif

    System reboot will be required following upgrade of language variants.
    Installation Verification Procedure can be run after reboot.
```

A.3 Sample Installation on an OpenVMS Alpha Version 6.2 System

Example A–4 contains a sample installation of the mandatory ECO for the PCSI software on an OpenVMS Alpha Version 6.2 operating system. Example A–5 contains a sample installation of the *Compaq DECwindows Motif for OpenVMS* software on an OpenVMS Alpha Version 6.2 operating system with insufficient system resources.

Example A–4 Sample Installation of the Mandatory ECO for PCSI on an OpenVMS Alpha System

```
The following product has been selected:
DEC AXPVMS VMS62TO71U2_PCSI V1.0

Do you want to continue? [YES]  Return

*** DEC AXPVMS VMS62TO71U2_PCSI V1.0

%PCSIUI-I-DONEASK, execution phase starting
The following product will be installed:
DEC AXPVMS VMS62TO71U2_PCSI V1.0
%PCSI-I-VOLINFO, estimated space information for volume DISK$2
-PCSI-I-VOLSPC, -331 required; 2851892 available; 2852223 net

Portion Done: 0%
...10%
...40%
...80%
...90%
...100%
The following product has been installed:
DEC AXPVMS VMS62TO71U2_PCSI V1.0
```

Example A–5 Sample Installation of an Upgrade of DECwindows Motif on an OpenVMS Alpha System With Insufficient System Resources

```
$ PRODUCT INSTALL DWMOTIF Return


The following product has been selected:
    DEC AXPVMS DWMOTIF V1.2-6              Layered Product

Do you want to continue? [YES] Return

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 V1.2-6: DECwindows Motif

    Copyright 2000 Compaq Computer Corporation

    Compaq Computer Corporation

    This product uses the PAK: DW-MOTIF

Checking values of system parameters...
%DECW-W-BADVALUE, SYSGEN parameter GBLPAGES is 110000, should be at least 150000
%DECW-W-BADVALUE, SYSGEN parameter NPAGEDYN is 1867776, should be at least 1998848

  The installation procedure has determined that some system parameter values
  require modification to install the DECwindows Motif Version 1.2-6 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 V1.2-6.

        @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
```

(continued on next page)

Example A–5 (Cont.) Sample Installation of an Upgrade of DECwindows Motif on an OpenVMS Alpha System With Insufficient System Resources

At this point, run AUTOGEN and then restart the installation.

```
The following product has been selected:
    DEC AXPVMS DWMOTIF V1.2-6              Layered Product

Do you want to continue? [YES] Return

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 V1.2-6: DECwindows Motif

    Copyright 2000 Compaq Computer Corporation

    Compaq Computer Corporation

    This product uses the PAK: DW-MOTIF

Checking values of system parameters...

                                       OK

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

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

    Do you want to continue? [YES] Return

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

DEC AXPVMS DWMOTIF V1.2-6: DECwindows Motif
    DEC AXPVMS VMS V6.2-1H3 [Installed]
       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
```

(continued on next page)

Example A–5 (Cont.) Sample Installation of an Upgrade of DECwindows Motif on an OpenVMS Alpha System With Insufficient System Resources

```
      Programming examples for DECwindows: YES
      Programming examples for the New Desktop: YES

Are you satisfied with these options? [YES] Return

Execution phase starting ...

The following product will be installed to destination:
    DEC AXPVMS DWMOTIF V1.2-6             DISK$2:[VMS$COMMON.]
The following product will be removed from destination:
    DEC AXPVMS DWMOTIF V1.2-5             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:
    DEC AXPVMS DWMOTIF V1.2-6             Layered Product
The following product has been removed:
    DEC AXPVMS DWMOTIF V1.2-5             Layered Product
  DEC AXPVMS DWMOTIF V1.2-6: DECwindows Motif

    System reboot will be required following upgrade of language variants.

    Installation Verification Procedure can be run after reboot.
```

B

VMSINSTAL Sample Installation

This appendix contains a sample VMSINSTAL product installation.

B.1 Sample Installation Using VMSINSTAL on a VMS Version 5.5–2 System

Example B–1 contains a sample installation of the *Compaq DECwindows Motif for OpenVMS* software on a VMS Version 5.5-2 operating system using the VMSINSTAL procedure. The sample installation assumes that no users are logged in to the system and that you specified OPTIONS N to display the release notes.

Example B–1 Sample Installation Using VMSINSTAL

```
$ @SYS$UPDATE:VMSINSTAL DWMOTIFVAXU6012

        VAX/VMS Software Product Installation Procedure V5.5-2

It is 26-MAR-2000 at 10:36.

Enter a question mark (?) at any time for help.

* Are you satisfied with the backup of your system disk [YES]? Return

* Where will the distribution volumes be mounted: DAD2:[000000]Return

Enter the products to be processed from the first distribution volume set.
* Products: dwmotifvaxu6012 Return

* Enter installation options you wish to use (none): Return

The following products will be processed:

  DWMOTIFVAXU6 V1.2

        Beginning installation of DWMOTIFVAXU6 V1.2 at 10:36
```

(continued on next page)

Example B–1 (Cont.) Sample Installation Using VMSINSTAL

```
%VMSINSTAL-I-RESTORE, Restoring product save set A ...
%VMSINSTAL-I-RELMOVED, Product's release notes have been moved to SYS$HELP.

        *** Installing DECwindows Motif for OpenVMS VAX software ***

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  Confidential computer software. Valid license from Compaq or authorized
  sublicensor required for possession, use , or copying. Consistent with
  FAR 12.211 and 12.212, Commercial Computer Software, Computer Software
  Documentation, and Technical Data for Commercial Items are licensed
  to the U.S. Government under vendor's standard commercial license.

  You can install the DECwindows Motif kit completely or in selected
  portions.  A complete installation requires as many as 68,400 blocks.
  If you choose to perform a partial installation, you can select
  (tailor) the programming support files that support your DECwindows
  Motif application development.  Whether you perform a complete or partial
  installation, this kit provides support for running DECwindows Motif
  applications on OpenVMS compute servers.

* Do you want to install the entire kit [Y]? No Return

  This installation procedure provides support files for developing
  DECwindows Motif applications in several programming languages.  These
  files are needed only to develop applications and are not required to run
  DECwindows Motif applications.  The free disk space requirement for each
  programming support file ranges from 3000 to 8000 blocks.

* Do you want to install DECwindows Motif programming support [Y]? Return

  Support files are supplied for the following OpenVMS programming languages:

  FORTRAN, Pascal

  In addition, support files are supplied for programming in the C language
  using conventions and standards developed at the Massachusetts Institute
  of Technology.

* Do you want to install all programming language support files [Y]? Return

* Do you want to install DECwindows Motif programming examples [Y]? Return

  You have selected the following portions of the kit:

        o  DECwindows Motif Applications and Run-time Libraries

        o  DECwindows Motif programming examples
```

(continued on next page)

Example B–1 (Cont.) Sample Installation Using VMSINSTAL

```
        o  DECwindows Motif programming support
                FORTRAN, Pascal
                MIT C language programming conventions

* Are these selections correct [Y]? Return

  A registered and loaded product authorization key for DW-MOTIF is
  required to run any DECwindows Motif for OpenVMS application. If you
  answer NO to the next question, the installation of DECwindows Motif for
  OpenVMS will be terminated.

        Product:      DW-MOTIF
        Producer:     DEC
        Version:
        Release Date:

* Does this product have an authorization key registered and loaded? Yes Return

  DECwindows Motif will not start if your system parameters are not
  correct.

  o If you allow a system shutdown, the installation procedure will
    reboot the system at the end of the installation.  If your system
    parameters are incorrect, the installation will run AUTOGEN prior
    to the system reboot.

  o If you do not allow a system shutdown, the installation procedure
    will continue, and you will be informed at the end of the
    installation whether you need to modify your system parameters in
    order to start DECwindows Motif.

    To complete the installation of this product, you should reboot
    the system.  If it is not convenient to reboot at this time, then
    enter NO to the following question.

    If you enter NO, the installation procedure will continue.

* Will you allow a system shutdown after this product is installed [YES]? No Return

  No further questions will be asked.
```

(continued on next page)

Example B–1 (Cont.) Sample Installation Using VMSINSTAL

```
%VMSINSTAL-I-RESTORE, Restoring product save set B ...
%VMSINSTAL-I-RESTORE, Restoring product save set C ...
%VMSINSTAL-I-RESTORE, Restoring product save set D ...
%VMSINSTAL-I-RESTORE, Restoring product save set E ...
%VMSINSTAL-I-RESTORE, Restoring product save set F ...
%VMSINSTAL-I-RESTORE, Restoring product save set G ...
%VMSINSTAL-I-RESTORE, Restoring product save set H ...
%VMSINSTAL-I-RESTORE, Restoring product save set I ...
%VMSINSTAL-I-RESTORE, Restoring product save set J ...
%VMSINSTAL-I-RESTORE, Restoring product save set L ...
%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target directories...

  You may safely ignore the following NCP error message(s):

%NCP-I-SUCCESS,  Success
Object = X$X0
%NML-I-RECDELET, Database entry deleted

  The Installation Verification Procedure (IVP) should be run after the
  installation has been completed and DECwindows Motif has been restarted.
  The IVP can be found in SYS$TEST:DECW$IVP.COM.

  The installation procedure has determined that your system parameters are
  set correctly and that it will not be necessary to run AUTOGEN or reboot
  the system.

  If your system is already running DECwindows Motif, restart DECwindows
  Motif with the following DCL command:

       $ @SYS$MANAGER:DECW$STARTUP RESTART

  If your system is NOT already running DECwindows Motif, start DECwindows
  Motif with the following DCL command:

       $ @SYS$MANAGER:DECW$STARTUP

                            * * * N O T E * * *

  If you are installing DECwindows Motif from your workstation console, log
  off after you enter the command to start DECwindows Motif.

  The installation procedure has determined that your system parameter values
  are acceptable.  A reboot of the system is not required.

        Installation of DWMOTIFVAXU6 V1.2 completed at 10:57
```

(continued on next page)

Example B–1 (Cont.) Sample Installation Using VMSINSTAL

```
Enter the products to be processed from the next distribution volume set.
* Products: Return
    VMSINSTAL procedure done at 12:45
```

C
Software Components

If you installed *Compaq DECwindows Motif for OpenVMS* 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
------                                  -----------
[000000]                                directory
[000000]DEC-AXPVMS-DWMOTIF-V0102-6-1.PCSI$DESCRIPTION file
[000000]DEC-AXPVMS-DWMOTIF-V0102-6-1.PCSI$TLB file
[CDA$LIBRARY]                           directory
[CDA$LIBRARY]CL_DAY.DOC_STYLE           file
[CDA$LIBRARY]DEFSTYLE.DDIF              file
[CDE$DEFAULTS]                          directory
[CDE$DEFAULTS]                          directory
[CDE$DEFAULTS.SYSTEM]                   directory
[CDE$DEFAULTS.SYSTEM]                   directory
[CDE$DEFAULTS.SYSTEM.APP-DEFAULTS]      directory
[CDE$DEFAULTS.SYSTEM.APP-DEFAULTS.C]    directory
[CDE$DEFAULTS.SYSTEM.APP-DEFAULTS.C]DT.DAT file
[CDE$DEFAULTS.SYSTEM.APP-DEFAULTS.C]DTCALC.DAT file
[CDE$DEFAULTS.SYSTEM.APP-DEFAULTS.C]DTCREATE.DAT file
[CDE$DEFAULTS.SYSTEM.APP-DEFAULTS.C]DTFILE.DAT file
[CDE$DEFAULTS.SYSTEM.APP-DEFAULTS.C]DTHELLO.DAT file
.
.
.
```

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