DECwrite

Installation Guide for OpenVMS Systems

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This guide describes how to install DECwrite Version 3.0 on an OpenVMS system.

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Preface

DECwrite™ is an integrated document processing application that is available on a variety of hardware, operating, and windowing systems, referred to as **platforms**. Since DECwrite is supported by Digital's Network Application Services (NAS™), which allow application software to work in a heterogeneous computer environment, you can transfer documents and use DECwrite in a similar fashion on all its platforms.

Purpose of This Guide

This guide describes how to install DECwrite Version 3.0 on the OpenVMS™ operating system. You should review the entire guide, as well as the Read-Me-First letter, before you start the installation.

Who Should Use This Guide

This guide is for OpenVMS system managers or others responsible for installing system software. To install DECwrite software, you must have access to a privileged account such as the SYSTEM account, and you must be familiar with the OpenVMS installation procedure (VMSINSTAL).

Structure of This Guide

This guide has four chapters and one appendix.

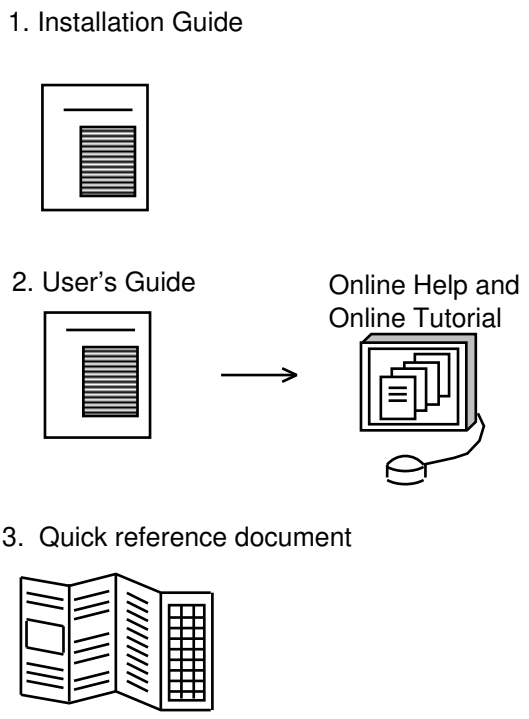
- Chapter 1 describes installation prerequisites and suggestions.
- Chapter 2 describes the installation procedure.
- Chapter 3 describes post-installation procedures and general usage information.
- Chapter 4 describes the DECwrite Font Utility that allows you to add, manage, and delete new fonts.
- Appendix A lists the files that are installed on the system during a DECwrite installation.

- Appendix B shows a sample installation procedure for reference purposes.

User Information

Use the user information for your DECwrite kit in the order shown in Figure 1.

Figure 1 DECwrite User Information



On the OpenVMS VAX™ platform, DECwrite also supplies two online files that contain information about CDA™ converter[1] options and error messages. See the *DECwrite User's Guide* for information about the location of these files.

Note

Refer to your OpenVMS system documentation for guidelines about how to manage files and for information about how to maintain backup

[1] The CDA converters provide features for transforming files to and from DECwrite's standard format for documents.

copies of documents, how to protect documents, and how to create directories where you can store related documents. That information is not covered in this guide.

For more information about the VMSINSTAL command procedure, see the *OpenVMS System Manager's Manual.*

For more information about DECwindows™ Motif®, see the following:

- OpenVMS *DECwindows Motif User's Guide*
- OpenVMS *DECwindows Motif Applications Guide*

Conventions

The following conventions are used in this guide:

Return	A key name is shown enclosed to indicate that you press a key on the keyboard.
`Monospace text`	Monospace text indicates information that you must enter from the keyboard.
UPPERCASE TEXT	Uppercase letters indicate that you must enter a command (for example, enter OPEN/READ) or indicate the name of a routine, the name of a file, the name of a file protection code, or the abbreviation for a system privilege.
DECchart	The term DECchart refers to the DECchart™ software.
DECdecision	The term DECdecision refers to the DECdecision™ software.
DECwrite	The term DECwrite refers to the DECwrite software.
WPS–PLUS	The term WPS–PLUS refers to the WPS–PLUS™ software.

1

Preparing for DECwrite Installation on an OpenVMS System

This chapter describes tasks that you must perform when installing DECwrite, and suggests the best methods for preparing for installation.

Installing DECwrite is similar to installing other OpenVMS layered products. You should carry out the following steps:

1. Take an inventory of the software distribution kit.
2. Make sure that your system has the prerequisite software and hardware.
3. Register your DECwrite license according to the OpenVMS License Registration section in this chapter.
4. Prepare your system and its users for installation.
5. Print and read the Release Notes.
6. Perform the installation procedure and any necessary post-installation procedures.
7. Resume normal operations after you complete the installation.

You should allow between between 30 minutes and 2 hours and 15 minutes for the installation, depending on the speed of the system on which you are installing and the options you select. It takes 5 minutes to run the Installation Verification Procedure (IVP).

1.1 DECwrite Distribution Kit

Each DECwrite distribution kit contains:

- A bill of materials (BOM) and indented bills report (BIL)
- The distribution media for the DECwrite software
- Documentation for the product

  Media Only kits include the installation guide only.

1.1 DECwrite Distribution Kit

- The Product Authorization Key (PAK)

To ensure that you have a complete kit, check the kit contents against the bill of materials and the indented bills report.

Check also that you received the correct distribution media, labeled as DECwrite V3.0.

If your kit is damaged or if you find that parts of it are missing, contact your Digital™ representative.

1.2 Prerequisite Software

You must be running OpenVMS VAX Version 5.4-3 or higher or OpenVMS AXP™ Version 1.5 or higher. You must also be running DECwindows Motif for OpenVMS Version 1.1 or higher.

To install DECwrite you must have:

- A valid OpenVMS operating system configuration running the minimum required version of OpenVMS as specified above.
- DECwindows installed

  To execute the IVP during the installation, DECwindows Motif must also be running.

Since DECwrite is a DECwindows Motif application, it can run in either of the following ways:

- Standalone execution — running the DECwindows Motif display server and the client application (DECwrite) on the same machine
- Remote execution — running the DECwindows Motif display server and the client application (DECwrite) on different machines

  This requires that a valid DECwindows transport mechanism also be installed. For example, these include DECnet™, TCP/IP, and LAT™.

For standalone execution, the following DECwindows components must be installed on the machine:

- OpenVMS DECwindows Compute Server (base kit, which includes runtime support)
- OpenVMS DECwindows Device Support

For remote execution in a noncluster environment, the following DECwindows components must be installed:

On the workstation:

- OpenVMS DECwindows Compute Server (base kit, which includes runtime support)
- OpenVMS DECwindows Device Support

On the remote machine:

- OpenVMS DECwindows Compute Server (base kit, which includes runtime support)
- OpenVMS DECwindows Device Support (optional)

  Refer to the *OpenVMS Installation Guide* for details.

1.3 Prerequisite Hardware

DECwrite supports all hardware configurations supported by an OpenVMS VAX Version 5.4-3 system or an OpenVMS AXP Version 1.5 system running DECwindows Motif for OpenVMS Version 1.1, with a minimum of 12 MB of memory.

See the DECwrite System Software Addendum (SSA) for details about supported hardware configurations.

1.4 Privileged Account

To install DECwrite, you must be logged into the system manager's account (SYSTEM), an account that has SETPRV, or an account with at least the following privileges:

- CMKRNL
- WORLD
- SYSPRV

Note that the VMSINSTAL procedure turns off BYPASS privilege at the start of the installation.

1.5 License Registration

You should register and load the DECwrite license before you install DECwrite. The information you need is in the Product Authorization Key (PAK) shipped with DECwrite. The PAK is a paper certificate that contains data about your license.

Note

If you do not register and load the license before installing DECwrite, the installation will complete but DECwrite will run only in demonstration mode. In demonstration mode you will not be able to save documents. You will be able to use DECwrite fully once you have registered and loaded the DECwrite PAK.

There are several license types for DECwrite Version 3.0. While it is necessary to have only one license type active to use DECwrite, DECwrite checks for the existence of the other license types until it finds a valid license type. License failures for some of these other license types may be displayed to the operator's console and can be disregarded. These messages can be controlled system-wide for all products by defining the LMF$DISPLAY_OPCOM_MESSAGE logical name. For more information, see the *OpenVMS License Management Utility* manual.

To register the license, first log in to a privileged account, such as the system manager's account, SYSTEM. Then choose one of the following procedures to perform the registration. The second method is faster for experienced users.

- Invoke the SYS$UPDATE:VMSLICENSE.COM procedure. When prompted for information, respond with data from your Product Authorization Key (PAK).

  OR

- Issue the DCL commands LICENSE REGISTER and LICENSE LOAD with the appropriate qualifiers that correspond to information on the PAK.

For more information, see the *OpenVMS License Management Utility* manual.

1.6 Startup Procedures

If you have previously installed DECwrite, make sure you execute SYS$STARTUP:WRITE$STARTUP.COM before starting the new installation.

If you have previously installed any of the International Lexicon kits or are reinstalling DECwrite, make sure you execute the SYS$STARTUP:LCI$STARTUP.COM procedure before starting the installation. This startup procedure defines the logical name LCI$LEXICONS. The installation procedure then uses this logical name to place the lexicon, or the spell check dictionary, files in their proper directories.

1.7 VMScluster Considerations

You can install DECwrite on a VMScluster.

In a VMScluster™ with a common system disk, you can perform the installation on a single member of the cluster. After the installation is completed, each processor can share the same DECwrite software.

You must check the number of global sections and global pages on each node in the VMScluster where you plan to install DECwrite. See the next section (see Section 1.8) for instructions.

See Chapter 3 for details about VMScluster post-installation instructions.

1.8 System Quotas

You use the VMSINSTAL command procedure to install DECwrite. For VMSINSTAL to run properly, there must be sufficient disk storage space and proper system parameter settings to accommodate the installation. This section describes the recommended disk space and system parameters.

1.8.1 Disk Space Requirements

Installing DECwrite requires a certain amount of disk storage space. Once the installation is complete, less storage space is required. Table 1–1 summarizes the storage requirements.

The VMSINSTAL command has an Alternate Working Directory (AWD) option. This allows you to designate a directory other than the default working directory (SYS$SYSROOT:[SYSUPD.product-name]) used by VMSINSTAL during the installation. This option is useful if there is little free space on the system disk.

1.8 System Quotas

Note

The values in Table 1–1 apply only to the American English language variant. See the cover letter of the System Software Addendum (SSA) in your kit for the values appropriate to your product variant.

Table 1–1 Free Disk Blocks Required to Install DECwrite

Installation Type	At Installation Time[1]		For Permanent Use[1]
	System Disk	AWD Device	System Disk
OpenVMS AXP:			
Complete	51 200	47 300	47 300
Without clip art	41 000	37 100	37 100
Font only	2200	2200	1000
OpenVMS VAX:			
Complete	55 000	50 000	50 00
Without clip art	44 800	39 800	39 800
Font only	2200	2200	1000

[1]These values are approximate, but are the maximum that the installation will require. The installation procedure reports the actual number of blocks required, which will be slightly less than these values, and may differ from the sample installation in Chapter 2.

Use the DCL command SHOW DEVICE to determine the number of free blocks that are presently available on the system disk:

```
SHOW DEVICE SYS$SYSDEVICE
```

If the system disk does not have enough free blocks for permanent use, delete unnecessary files to provide space.

If the system disk has enough disk space for permanent use, but does not have enough free blocks at installation time, use any alternate working directory (AWD) on the device having the required AWD disk space. See Table 1–1 for AWD disk space requirements.

1.8.2 System Parameter Values

Digital recommends that the system parameter WSMAX be set to at least 4100. On a single-user workstation, it should be set higher, depending on the amount of workstation memory.

Digital recommends that the account you use to install DECwrite must have a buffered I/O byte count limit (BYTLM) of 35 000. If necessary, change the value using the OpenVMS Authorize Utility. For example, to modify the BYTLM resource for the SYSTEM account, use this command:

```
$ RUN SYS$SYSTEM:AUTHORIZE
UAF> MODIFY SYSTEM/BYTLM=35000
UAF> EXIT
```

The DECwrite executable images and the shared libraries can be optionally installed at DECwrite startup time using the INSTALL utility. Table 1–2 lists the minimum system parameter values required to successfully install all these images and libraries.

Table 1–2 Minimum Required Global Pages and Sections

System Parameter	Minimum Value
GBLPAGES	3116
GBLSECTIONS	9

If GBLPAGES or GBLSECTIONS are below the recommended values, VMSINSTAL displays a message. Installing the DECwrite images will result in better performance.

Make sure to adjust these system parameters before modifying and executing the DECwrite startup procedure WRITE$STARTUP.COM. See Chapter 3 for details.

Since installing the DECwrite images and shared libraries is optional, you can safely continue the installation.

1.8.2.1 Checking Parameter Values

To check the value of one or more parameters, enter the following command at the DCL prompt:

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

At the SYSGEN> prompt, use the SHOW command to display the value of each system parameter.

1.8 System Quotas

After you finish checking parameter values, use the EXIT command to return to DCL level.

1.8.2.2 Calculating GBLPAGES and GBLSECTIONS Parameter Values

The values for GBLPAGES and GBLSECTIONS in Table 1–2 indicate that you must have at least 3116 unused global pages and 9 unused global sections available for the installation.

To calculate the number of unused global pages and global sections in your system:

1. Use the DCL F$GETSYI lexical function to determine the number of free global pages and global sections:

   ```
   $ WRITE SYS$OUTPUT F$GETSYI("FREE_GBLPAGES")
   $ WRITE SYS$OUTPUT F$GETSYI("FREE_GBLSECTS")
   ```

2. If the number of unused global pages is less than the number specified in Table 1–2, you must increase the value using the AUTOGEN command procedure (instructions follow).

The next section describes the procedures for changing these values. For more information, refer to the OpenVMS system management documentation.

1.8.2.3 Changing Parameter Values with AUTOGEN

You use the AUTOGEN command procedure to change system parameters. AUTOGEN automatically adjusts values for parameters that need to be changed.

To change system parameters with AUTOGEN:

1. Edit the SYS$SYSTEM:MODPARAMS.DAT file.

   For example, to increase the setting for the GBLPAGES system parameter by 2000, add this line to the file:

   ```
   ADD_GBLPAGES = 2000
   ```

2. Enter the following command to recalculate your system parameters:

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

   AUTOGEN performs an automatic system shutdown and reboots when it has finished. Rebooting your system makes the new parameter values active.

For more information about using AUTOGEN, see the instructions on modifying system parameters in the OpenVMS system management documentation.

1.9 Style File Backup

If there is a previous version of DECwrite installed on the system, and you have modified the style files provided with that version in the CDA$LIBRARY directory, make a backup copy of these style files before proceeding with the DECwrite installation.

If you are installing the American English version of DECwrite, use this command:

```
$ BACKUP/LOG CDA$LIBRARY:WR_*.DOC_STYLE STYLE_FILES.BCK/SAV
```

If you are installing the British English version of DECwrite, use this command:

```
$ BACKUP/LOG CDA$LIBRARY_EN_GB:WR_*.DOC_STYLE STYLE_FILES.BCK/SAV
```

After you complete the installation, restore the files in the save set to the CDA$LIBRARY directory.

1.10 System Disk Backup

Make a backup copy of your system disk before you install DECwrite.

For more information about backing up your system disk, refer to the OpenVMS system management documentation.

2
Installing DECwrite

This chapter describes how to run the DECwrite installation procedure. You should allow between 35 minutes and 2 hours and 20 minutes to complete the entire installation and installation verification procedure (IVP), depending on the speed of the system on which you are installing DECwrite. Allow approximately 10 minutes for a font-only installation. Before you start installing DECwrite, make sure that your system meets the requirements outlined in Chapter 1.

DECwrite supports language switching. You can install multiple translated versions of DECwrite on a single system. These translated versions are called language variants. This kit includes two DECwrite language variants: American English and British English. A language variant determines the defaults for attributes such as:

- The language used for menus and dialog boxes
- The Primary Language and Paper Size for new documents

  DECwrite performs spell checking, hyphenation, and sorting operations according to the primary language.
- The style files to use

Select the appropriate language from the Language Options dialog box on the Session Manager Options menu *before* you start the installation.

See the DECwrite Software Product Description (SPD) for a complete listing of the optional spell check dictionaries.

DECwrite installs the language-specific files in the appropriate language-specific subdirectories. See Appendix A for a complete listing of these files and directories, plus a listing of all the files that a DECwrite installation installs or modifies. Section 2.2 describes how to locate and print the release notes for your DECwrite kit.

Appendix B contains a printout of a typical installation procedure for your reference.

You can install the entire DECwrite kit, with or without clip art, or just the screen fonts supplied by DECwrite. If you are installing DECwrite:

- In a cluster that includes workstations, install the entire kit.
- On a standalone workstation that runs DECwrite locally, install the entire kit.
- On a standalone workstation that always runs DECwrite from a remote system, you need install only the screen fonts. This allows the standalone workstation to run DECwrite *only* from the remote system, and access the full set of supported fonts.

Similarly, if a standalone workstation user not running DECwrite wants to use either DECwindows Mail or the CDA Viewer to view documents containing equations, then you need to install the DECwrite screen fonts on that workstation.

2.1 VMSINSTAL Requirements

When you invoke the DCL command VMSINSTAL, it checks:

- Whether you are logged in to a privileged account
- Whether you have adequate quotas for installation
- Whether DECnet is up and running
- Whether any users are logged in to the system

If VMSINSTAL detects a problem during the installation procedure, it notifies you and asks if you want to continue. To stop the installation and correct the problem, enter NO or press the Return key. After you have made the correction, you can restart the installation.

To cancel the installation procedure at any time, press Ctrl/Y. The installation procedure deletes all files it has created up to that point and exits. You can then restart the installation.

Digital recommends that you refer to the section on the VMSINSTAL command procedure in your OpenVMS documentation set. In the OpenVMS base documentation set, see the *OpenVMS System Manager's Manual*. In the OpenVMS full documentation set, see the *Guide to Setting Up an OpenVMS System*.

2.2 VMSINSTAL Procedure

You must use the VMSINSTAL command procedure to install DECwrite. Follow these steps to begin the installation:

1. Log in to a privileged account, such as the OpenVMS system manager's account, SYSTEM.
2. Ensure that there are no active users on the system.
3. Start VMSINSTAL by entering a command in the following format:

   ```
   $ @SYS$UPDATE:VMSINSTAL DECWRITE030 device-name OPTIONS N
   ```

   where *device-name* is the device specification for the distribution media, for example, MUA0:.

   Specifying OPTIONS N indicates that you want to be prompted to display or print the release notes.

   Specifying OPTIONS AWD=*device:* where *device:* is other than SYS$SYSDEVICE, allows you to re-direct the creation of a temporary working directory used by VMSINSTAL, from SYS$COMMON:[SYSUPD.*kit-name*] to *device*:[000000.*kit-name*].

   You can also include the name of the root directory where VMSINSTAL creates its working directory by specifying the directory using the format: *OPTIONS AWD=device:[dir1.dir2.dir3]*. Using this specification the VMSINSTAL working directory is *device:[dir1.dir2.dir3]*.

   Note

   If the device root directory [000000], or the specified root directory [dir1.dir2.dir3], already contains the subdirectory [.*kit-name*], VMSINSTAL will delete the subdirectory and subdirectory contents before it restores the first saveset from the media.

   If you do not specify the AWD option, the installation creates the temporary working directory on the system disk by default.

   VMSINSTAL has several other options, described in the OpenVMS software installation documentation.

   A message similar to the following appears on your screen:

2.2 VMSINSTAL Procedure

```
        OpenVMS AXP Software Product Installation Procedure V1.5

It is 27-JAN-1994 at 19:13

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

Your DECnet network is up and running.
The following processes are still active:
  L
  M
  N
  O
  P
* Do you want to continue anyway [NO]?
```

DECwindows requires that DECnet be up and running.

4. Enter YES and press Return to continue the installation.

   You are asked whether you need to back up your system disk:

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

   Generally, you should back up your system disk before any major software installation, as you were instructed in Chapter 1. YES is the default answer.

5. If you backed up your system disk recently, press the Return key to continue.

   Next, you receive instructions to mount the distribution media you specified when you invoked VMSINSTAL (in this example, MUA0:). If you did not specify where you would mount the distribution volumes, DECwrite prompts you to identify where you have mounted them.

   ```
   Please mount the first volume of the set on MUA0:.
   * Are you ready?
   ```

6. Mount the media, then enter YES and press Return to indicate that you are ready to continue.

   The following messages appear on your screen:

   ```
   The following products will be processed:

     DECWRITE V3.0

          Beginning installation of DECWRITE V3.0 at 19:14

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

7. If you selected OPTIONS N when you first invoked the VMSINSTAL procedure, a menu asks you how you want to handle the release notes:

```
Release Notes Options:

        1.  Display release notes
        2.  Print release notes
        3.  Both 1 and 2
        4.  Do not display, print or copy release notes

* Select option [2]:
```

You should review the release notes before proceeding with the installation. Choosing option 3 displays the release notes and prints a copy.

If you choose an option that prints the release notes, you are prompted for a print queue:

```
* Queue name [SYS$PRINT]:
```

8. Press Return to print the release notes on SYS$PRINT, or type a different active queue name and press Return.

   The screen displays a message similar to the following:

   ```
   Job 810 (queue SYS$PRINT, entry 1295) started on SYS$PRINT
   ```

   You are asked whether you want to continue with the installation:

   ```
   * Do you want to continue the installation?
   ```

9. Enter YES to continue, otherwise press Return.

   In either case, the release notes are copied to a file in the SYS$HELP directory and you receive a message similar to the following:

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

   The text version of the release notes is contained in the file *DECWRITE030.RELEASE_NOTES* in the SYS$HELP: directory. The Bookreader version of the release notes is contained in the file *DECWRITE030_RELEASE_NOTES.DECW$BOOK* in the WRITE$EXAMPLES: directory.

Note

Do not delete the release notes for earlier DECwrite versions.

Note that the name of the release notes file includes the product name and version number.

2.2 VMSINSTAL Procedure

The screen displays the following messages:

```
 Beginning installation of DECWRITE V3.0 at 19:14

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

                DECwrite V3.0 Installation Procedure

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%VMSINSTAL-I-RESTORE, Restoring product save set B ...

     You can install the DECwrite kit completely or just the
     additional screen fonts used by DECwrite and the
     DECwrite Equation Editor.

     If you are installing this kit for use on a workstation, or on a
     VMScluster that includes workstations, then you should install
     the entire kit. This requires 62000 blocks.

     If you are installing this kit on a workstation that will only run
     DECwrite from a remote system, then only the screen font files are
     needed. This requires 1268 blocks.
```

You can install the entire DECwrite kit or just the screen fonts supplied by DECwrite. If you are installing DECwrite:

- In a cluster that includes workstations, install the entire kit.

- On a standalone workstation that runs DECwrite locally, install the entire kit.
- On a standalone workstation that always runs DECwrite from a remote system, you need install only the screen fonts. This allows the standalone workstation to run DECwrite *only* from the remote system, and access the full set of supported fonts.

  For a listing of the fonts supplied by DECwrite, see Appendix A.

You receive information about the number of blocks required to install the entire kit, or to install only the screen font files. You are then asked if you want to install the entire kit:

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

     This kit contains the user interface for both DECwrite/American
     English and DECwrite/British English. You should install the
     appropriate user interface  according the type of DECwrite
     license you have purchased.

     Choose one of the following:

         1) DECwrite/American English user interface
         2) DECwrite/British English user interface

* Enter choice [1]: 1
```

10. Press Return if you are installing American English. Enter 2 if you are installing British English.

```
     Installing DECwrite/American English...
     Installing DECwrite/Motif...
```

The screen displays:

```
     This kit contains an optional clipart library composed of Encapsulated
     PostScript pictures, DDIF pictures, and DDIF images. Its total
     size is 10240 blocks.

* Do you want to install the clip art library [YES]?
```

11. Press Return if you want to install the clip art library.

You can install the clip art library in sys$sysdevice:[clipart] by default, or you can install it in another location. DECwrite asks you to identify a directory other than the default directory where you want to place the clip art files.

```
Specify a device and directory on which to install the clip art library

* Device and directory [sys$sysdevice:[clipart]]: USER:[PUBLISH.CLIPART]
```

12. Enter the name of another directory where you want to place the files,

    OR

2.2 VMSINSTAL Procedure

Press Return to accept the default directory. For example:

```
  You have chosen the device and directory USER:[PUBLISH.CLIPART]

* Is this correct [YES]?
```

13. Press Return to confirm your choice of the directory.

    The installation also reinstalls the DECwrite style files. The installation prompts you to make backup copies if you have modified the original style files in the CDA$LIBRARY: directory.

```
    ************************************************************

    Note: This installation will replace the DECwrite supplied
    style files in CDA$LIBRARY. If you have made modifications to
    these files, make backup copies before continuing. For
    example:

     $ backup/log cda$library:wr_*.doc_style style_files.bck/sav

    ************************************************************

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

    If you are installing a language variant of DECwrite that already existed on your system, and if you have made modifications in language-specific style files located on CDA$LIBRARY_XX_YY, you should make an additional backup copy of these files before continuing. This applies, for example, if you have modified the style files supplied with the French version of DECwrite:

```
$ BACKUP/LOG CDA$LIBRARY_FR_FR:WR_*.DOC_STYLE STYLE_FILES_FR_FR.BCK/SAV
```

14. Create the backup files if necessary. Press Return once you have made the backup files, or if you do not need to preserve them.

    The screen then displays:

```
    This kit requires DECchart V1.6 or later.
```

    If your system does not have the required version of DECchart installed, the screen displays the following message:

```
    ************************************************************

    DECchart V1.6 will be installed since it does
    not exist on your system.

    ************************************************************
```

If your system has the required version of DECchart installed, the screen displays a message similar to the following:

```
    ************************************************************

    DECchart V1.n already exists on your system.
    You may choose to reinstall DECchart V1.n or
    use the currently installed version.

    ************************************************************

* Do you want to reinstall DECchart [NO]?
```

Reinstall DECchart if you are installing this kit on a system running multiple language versions of DECwrite. For example, if the French version of DECwrite is currently installed and you are installing the American English version, then reinstall DECchart.

15. Enter YES and press Return.

The screen then displays:

```
    This kit requires the DECwrite Equation Editor V3.0-2 or later.
```

If your system does not have the DECwrite Equation Editor V3.0-2 or later installed, the screen displays the following message:

```
    ************************************************************

    The DECwrite Equation Editor V3.0-2 will be installed
    since it does not exist on your system.

    ************************************************************
```

If your system has the DECwrite Equation Editor V3.0-2 or later installed, the screen displays the following message:

```
    ************************************************************

    The DECwrite Equation Editor V3.0-2 already exists on your
    system. You may choose to reinstall the Equation Editor
    or use the currently installed version.

    ************************************************************
* Do you want to reinstall the Equation Editor [NO]?
```

You should reinstall the DECwrite Equation Editor if you are installing this kit on a system running multiple language versions of DECwrite. For example, if the French version of DECwrite is currently installed and you are installing the American English version, then reinstall the Equation Editor. To reinstall the Equation Editor, enter YES and press Return.

2.2 VMSINSTAL Procedure

16. If there are some spell check dictionaries already installed on the system (by another product, or by a previous installation of DECwrite), the screen displays:

```
%VMSINSTAL-I-DIREXISTS, The spell check lexicon directory already exists:
-VMSINSTAL-I-DIREXISTS,              SYS$SYSDEVICE:[LCI.LEXICONS]
-VMSINSTAL-I-DIREXISTS, The American-English lexicon will be installed there.

     Checking/registering INTL-LEXICON-AMERICAN  Product Authorization Key...
```

17. If there are no spell check dictionaries already installed on the system, the screen displays:

```
     The DECwrite spell check lexicons will be installed in the directory
     SYS$SYSDEVICE:[LCI.LEXICONS] by default. You may optionally install the
     files on a device other than the system disk.

* Specify a device on which to install the spell check lexicons [SYS$SYSDEVICE:]:
```

    Enter the name of the device where you want the spell check dictionaries installed, or press Return to use the default device (SYS$SYSDEVICE:).

    The screen displays:

```
  You have chosen the device SYS$SYSDEVICE:

* Is this correct [YES]?
```

    Press Return to confirm the device. The screen then displays:

```
     Checking/registering INTL-LEXICON-AMERICAN  Product Authorization Key...
```

Note

The Session Manager's language setting should match the language of the DECwrite language variant you are installing.

    To set the language, choose Language from the Session Manager Options menu and choose the appropriate language from the Language Options dialog box.

    Note that other language variants have different PAKs.

    The screen then displays:

```
* Do you want to run the IVP after the installation [YES]?
```

18. If you are NOT installing DECwrite from a workstation, then do not run the Installation Verification Procedure (IVP). Instead, use a workstation to run the IVP after the installation is completed.

If you are installing DECwrite from a workstation, but one that is NOT running DECnet, then do not run the IVP during the installation. Instead, execute the IVP from the command line after the installation has completed, making sure that a display device is defined using the local transport. Use the SET DISPLAY command to define a display device. See the *OpenVMS DCL Dictionary* for information about this command.

If you are installing DECwrite from a workstation that is running DECnet, answer YES.

If your workstation display is not defined, the installation procedure tells you and prompts you for the workstation name. The screen displays:

```
Enter the node name of the workstation on which to display the IVP
or press Return to continue and not run the IVP

* Node name:
```

19. Enter the node name of the workstation on which you want to display the IVP.

    This node name is used to issue a SET DISPLAY command to the appropriate workstation. Note that this requires that the Session Manager's security database be set up properly and that nodes be defined properly in the network databases. For example, if you are installing DECwrite on your own workstation and you have SET HOST 0 from your own account to use the SYSTEM account, then you must add 0::SYSTEM to the security database. See the *OpenVMS DECwindows Motif User's Guide* for information about the Session Manager's security database.

    The screen then displays:

```
The language in the Language dialog box on the Session
Manager's Customize/Option menu must be set to American English
in order to run the IVP. Ensure the language is set accordingly
before continuing.

* Press Return when ready to continue:
```

20. Make sure that the language is set to the language you are installing, then press Return.

    You are asked whether you want to purge (delete) old versions of files replaced by this installation:

```
* Do you want to purge files replaced by this installation [YES]?
```

    Purging is recommended.

21. To purge old versions of the files, press Return.

2.2 VMSINSTAL Procedure

The screen displays a message similar to the following:

```
    To complete the installation on a standalone DEC 3000 Model 500 Series
    will take approximately:

        50 minutes to install
        10 minutes to run the IVP

    All required questions have been asked.
    You can terminate the installation procedure at this time.

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

Note

The exact wording of the message may vary, depending on whether you are installing DECwrite on an OpenVMS AXP or an OpenVMS VAX computer.

22. Press Return to continue the installation or type No to stop the installation.

    The screen displays the following messages:

```
%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 J ...
%VMSINSTAL-I-SYSDIR, This product creates system disk directory VMI$ROOT:[SYSHLP.EXAMPLES.DECWRITE].

     The on-line demonstration document, tutorial.doc and the
     documents used in the Getting Started exercises are in:

          VMI$ROOT:[SYSHLP.EXAMPLES.DECWRITE]
```

```
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  VMI$ROOT:[SYSHLP.EXAMPLES.DECWRITE.FONTS].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  VMI$ROOT:[SYSTEST.DECWRITE].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  USER:[PUBLISH.CLIPART].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[EPS].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[ARROWS].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[BUILDING].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[COMMUNIC].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[ENERGY].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[SPORTS].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[FIGURES].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[FINANCE].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[GOVERNMT].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[SCIENCE].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_BLDG].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_BORDR].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_BUSNS].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_COMM].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_DOM].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_FIN].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_FLAGS].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_MISC].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_NATUR].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_PEOPL].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_SCI].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_SPORT].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_SYMBL].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_TOONS].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_TRANS].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_USMAP].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_WDMAP].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  VMI$ROOT:[SYSHLP.EXAMPLES.DECCHART].
```

23. The screen then displays a message similar to the following:

```
The following commands must be added to the system startup
command file SYS$MANAGER:SYSTARTUP_VMS.COM for all nodes that will
be running DECwrite:

     @sys$startup:write$startup
     @sys$manager:decw$starti18n
     @sys$startup:lci$startup.com     ! American-English lexicon
```

Note

The name of the system startup command file varies, depending on the OpenVMS version, and on whether you are installing DECwrite on an OpenVMS AXP or an OpenVMS VAX computer. See Chapter 3 for information about editing startup files.

24. Add the listed commands to the system startup command file for all nodes that will run DECwrite.

2.2 VMSINSTAL Procedure

The screen also displays:

```
If you are installing this kit on a workstation, you should
restart DECwindows after the installation has completed:

    @sys$startup:decw$startup restart
```

25. Make sure you restart DECwindows after the installation is complete.

    The installation continues.

```
%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target directories...
%VMSINSTAL-I-FONTS, Updating font directories
8 fonts loaded
Creating decw$root:[sysfont.decw.user_75dpi]DECW$FONT_DIRECTORY.DAT

8 fonts loaded

Creating decw$root:[sysfont.decw.user_100dpi]DECW$FONT_DIRECTORY.DAT
%VMSINSTAL-I-RUNIVP, Executing installation verification procedure(s)

Executing IVP for: DECwrite V3.0

    The IVP edits a sample document. If the document looks the same as
    the illustration in the installation guide, then the installation
    has been successful. After the document window appears, click the
    mouse in the window to assign input focus, and type Alt/Q (hold
    down the Compose Character or "Alt" key and press Q) to exit
    DECwrite and complete the DECwrite portion of the IVP.

    Note that when executing this IVP for a particular DECwrite language
    variant, make sure to set the appropriate language in the Language
    dialog box on the Session Manager's Customization menu. See the
    installation guide for details.

    Set your language now before continuing with the IVP.

    Press return when ready:
```

    To set the language, choose Language from the Session Manager Options menu and choose the appropriate language from the Language Options dialog box.

26. Return input focus to the terminal window and press Return.

    The screen displays:

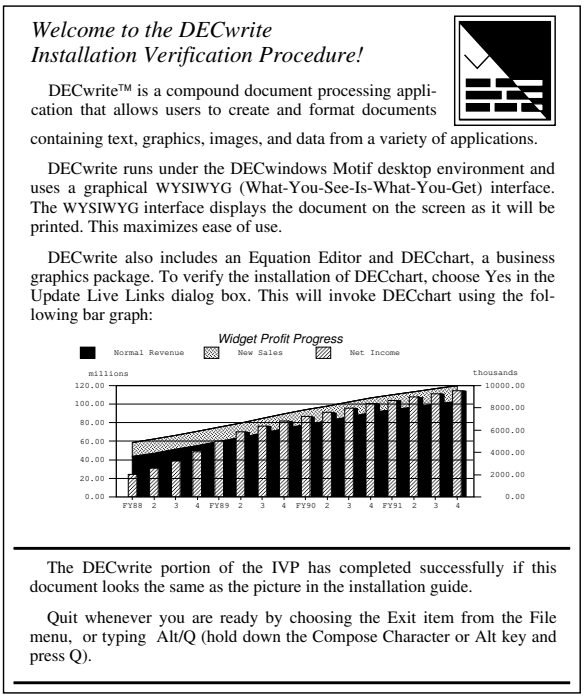
```
Starting DECwrite....
```

27. The document displayed on the screen should look like Figure 2–1.

Note

If you are running DECwrite on a color workstation the document will be displayed in color.

Figure 2–1 Successful Installation Display



28. Complete the instructions in the IVP document, including updating the chart, which serves as an installation verification procedure for DECchart. After you have updated the chart, follow the instructions to close the IVP document.

    As DECwrite displays the document, the screen displays the following messages:

```
        ************************************
         DECwrite V3.0
         IVP COMPLETED SUCCESSFULLY
         ************************************
IVP completed for: DECwrite V3.0-2

Executing IVP for:  International Lexicon/American for VMS V1.0

 ******************************************
```

2.2 VMSINSTAL Procedure

```
 International Lexicon/American for VMS V1.0
 IVP COMPLETED SUCCESSFULLY
 ******************************************

IVP completed for:  International Lexicon/American for VMS V1.0
 Installation of DECWRITE V3.0 completed at 20:05
 VMSINSTAL procedure done at 20:05
```

Note

VMSINSTAL will execute all of the DECwrite component IVP procedures (DECwrite itself, DECchart, International Lexicon/ American English) and exit successfully. Any errors will be reported by the individual IVP.

The installation is complete. Refer to the post-installation procedures in Chapter 3.

3

DECwrite Post-Installation Procedures

This chapter describes tasks you must complete after you install DECwrite.

3.1 Editing Startup Files

You must edit the system startup command file and, optionally, the DECwrite startup command file before using DECwrite.

3.1.1 Editing the System Startup File

The name of the system startup command file varies, depending on the version of OpenVMS that is installed on the system. Table 3–1 shows the system startup command file names.

Table 3–1 System Startup File Names

OpenVMS Version	File Name
OpenVMS AXP Version 1.5 or later	SYS$MANAGER:SYSTARTUP_VMS.COM
OpenVMS VAX Version 5.4	SYS$MANAGER:SYSTARTUP_V5.COM
OpenVMS VAX Version 5.5	SYS$MANAGER:SYSTARTUP_V5.COM
OpenVMS VAX Version 6.0 or later	SYS$MANAGER:SYSTARTUP_VMS.COM

Add the following lines to the appropriate system startup command file:

```
$ @SYS$STARTUP:WRITE$STARTUP.COM        ! DECwrite
$ @SYS$STARTUP:LCI$STARTUP.COM          ! International Lexicons
```

Note

If an international spell checking dictionary has previously been installed, LCI$STARTUP.COM should already be in the system startup command file.

3.1 Editing Startup Files

3.1.2 Editing the DECwrite Startup File

The DECwrite startup command file, WRITE$STARTUP.COM, defines the logical name WRITE$CLIPART to point to the DECwrite clip art directory. See the *DECwrite User's Guide* for information about the clip art files.

The default at installation time is SYS$SYSDEVICE:[CLIPART]. If you installed the clip art during the installation, or if you had the logical name WRITE$CLIPART previously defined, the installation automatically appends the correct WRITE$CLIPART logical name definition to WRITE$STARTUP.COM.

By default, all the INSTALL commands in WRITE$STARTUP.COM are commented out. You can optionally remove the comments for the images and shared libraries you want to install. This improves system performance on systems where multiple users are running DECwrite concurrently.

Make sure you have completed the steps in Section 1.8 before executing WRITE$STARTUP.COM on a standalone system or on other nodes in a VMScluster.

3.1.3 Examples Directory

DECwrite provides an examples directory with demonstration documents, sample clip art, and other documents useful during DECwrite editing. The DECwrite startup command file defines the WRITE$EXAMPLES logical name to point to the DECwrite examples directory.

For a complete list of all the examples files, read the file *readme.txt* in the *write$examples* directory.

3.1.4 Editing the System Login Command Procedure

When a user invokes a LiveLink™ application, DECwrite starts the application in a detached, or child, process. For performance reasons, the detached process does not execute the user's LOGIN.COM command file. This means that logical names define in the LOGIN.COM file are not accessible to the LiveLink application. To make the logical names accessible, user's must use the /JOB qualifier when defining logical names in your LOGIN.COM file.

Note that LiveLink applications do execute the system login command file, SYLOGIN.COM. When editing this file, do *not* assume interactive use only. For example, use the lexical function F$MODE( ):

```
$ IF F$MODE() .NES. "INTERACTIVE" THEN EXIT
```

If there are logical names that you want to make accessible to all users, place the definitions before this line in the command file.

3.2 Installing DECwrite on a Standalone System

If you have installed DECwrite on a standalone workstation, you must restart the DECwindows server in order to use the new screen fonts. Enter `@SYS$STARTUP:DECW$STARTUP RESTART` to restart the server.

Note

This will log you out of your workstation session.

3.3 Installing DECwrite on a VMScluster

To install DECwrite on a cluster with a common system disk, make sure you load the DECwrite license and the lexicon license appropriate to the language variant being installed on all nodes in the cluster.

To load the licenses, enter commands in the following format:

```
$mc sysman
SYSMAN> set environment/cluster/user=system
Remote Password: <system password for the cluster nodes>
SYSMAN> do license load LICENSE-NAME
```

Where *LICENSE-NAME* is the language variant kit name.

```
SYSMAN> do license load intl-lexicon
```

Where *intl-lexicon* is the name of the spell lexicon. Table 3–2 lists the lexicons.

```
SYSMAN> do @sys$startup:lci$startup
SYSMAN> do @sys$startup:write$startup P1 [P2]
SYSMAN> do @sys$manager:decw$starti18n P1 !DECwrite language variants
SYSMAN> do @sys$startup:decw$startup restart ! Only required for workstations
```

Where *P1* is the name of the language parameter (for example, EN_GB for British English), and *P2* is the default language used when defining write$examples, as described in Section 3.1.3.

```
SYSMAN> exit
```

Table 3–2 International Spell Lexicons

Name	Description
INTL-LEXICON-AMERICAN	American English
INTL-LEXICON-BRITISH-ENG	British English
INTL-LEXICON-DEUTSCH	German
INTL-LEXICON-ESPAÑOL	Spanish
INTL-LEXICON-FRANCAIS	French
INTL-LEXICON-NEDERLANDS	Dutch
INTL-LEXICON-SVENSKA	Swedish
INTL-LEXICON-ITALIAN	Italian

3.4 Rebooting the System

You can reboot your system after you have installed DECwrite and reset the system parameters (if necessary). A system reboot verifies that DECwrite is ready for use, and establishes any new parameter settings. Note, however, that rebooting is optional.

3.5 Performance and Tuning

Performance concerns how fast DECwrite works for you when you are working in DECwrite. Tuning concerns how to set system parameters and otherwise run DECwrite so that DECwrite consumes resources optimally.

CPU and memory are the major hardware resources affecting DECwrite performance. For more explanation, see Section 3.5.1.

How you run DECwrite and the type of documents you are creating also affect performance. For more information on these factors, see Section 3.5.2.

To optimize performance on OpenVMS systems, you should check the system parameters and the user account profile, as detailed in Section 3.5.3.

Related to but not part of DECwrite performance are such aspects of your system as printing, disk space, network traffic, and so on. For example, printing performance depends on such factors as the type of printer you are using, the length of your document, and whether or not your document contains complex pictures or images.

3.5.1 CPU and Memory

CPU and memory are key to optimizing performance. The more memory you have and the faster the CPU, the better DECwrite will perform. As a rough guide, you need 1 megabyte of memory for every 100 pages of text-only DECwrite document. Documents with images or graphics require more memory.

Each desktop should have a local page disk with an initial page file size of approximately 80,000 blocks. A standalone workstation requires a minimum of 16 megabytes of physical memory.

DECwrite V3.0 uses the OpenVMS Proactive Memory Reclamation feature to optimize memory usage.

3.5.2 DECwrite Sessions

At each DECwrite session, users can control some aspects of DECwrite performance.

3.5.2.1 Running DECwrite

If possible, users should run DECwrite as a detached process or directly from a DECterm window rather than spawning DECwrite. If a user spawns DECwrite, DECwrite shares process quotas with any other application running in or from that DECterm window.

Display speed is affected by the graphics hardware used as well as by whether you are using X-terminals or workstations and the type of documents you are displaying.

3.5.2.2 Images

Bitmap images such as scanned photographs, screen captures, or images created by a paint program take up more memory and disk space than other parts of a DECwrite document. Documents containing images (both local copies of images and linked images) typically require large amounts of virtual memory during an editing session.

The memory requirements for an image depend on its resolution, size, and depth, explained in Table 3–3.

3.5 Performance and Tuning

Table 3–3 Image Characteristics

Factor	Determined By
Resolution	Number of pixels (picture elements or dots) per inch, most commonly known as dots per inch or DPI, which is 75 or 100 for screen captures from most Digital workstations and 300 or higher for most scanned or paint-program-created images
Size	Total number of pixels in the image, calculated by multiplying the resolution by the dimensions of the picture (for example, 100 X 2 X 3 = 600 pixels for an image that is 2 inches by 3 inches with a resolution of 100 DPI)
Depth	Number of memory bits (binary digits) required to represent a pixel, which is 1 bit per pixel for black and white (bitonal) and typically either 8 or 24 bits per pixel for color or grayscale images

Table 3–4 shows memory requirements for sample images. (Note that 8 bits is equal to 1 byte, and a megabyte is approximately a million bytes.)

Table 3–4 Memory Requirements for Sample Images

DPI	Dimensions	Type	Memory Required (in megabytes)
75	8 ½ X 11 inches	black and white	.066 MB
75	8 ½ X 11 inches	8-bit color	.525 MB
300	8 ½ X 11 inches	black and white	1.05 MB
300	8 ½ X 11 inches	8-bit color	8.40 MB
300	8 ½ X 11 inches	24-bit color	25.25 MB

Even a large number of smaller images can require large amounts of memory. The main tuning parameters that affect DECwrite's memory usage are the AUTHORIZE working set quotas (WSDEFAULT, WSQUOTA, WSEXTENT), page file quota (PGFLQUO), and the virtual page count SYSGEN parameter (VIRTUALPAGECNT), described in Section 3.6.2 and Section 3.5.3.

Use the SHOW PROCESS/CONT command while paging through a document's images to determine the virtual memory requirements. Make sure the page file quota can accommodate the maximum number of virtual pages required. If users have very large images and if DECwrite displays messages about insufficient memory, increase the SYSGEN virtual page count parameter.

In some cases, you may want to recommend to users that they change color images to black and white renditions in order to save space in memory (and on disk).

A document containing large or multiple images requires much more time to print than a similar document with no images. While preparing to print a page with large images or several images, the printer may generate "stalled" messages, but still be working on printing that next page.

3.5.2.3 Encapsulated PostScript Pictures

Large Encapsulated PostScript (EPS) pictures can take a long time to display on your workstation. To avoid this problem, set the display off by setting the Encapsulated PostScript toggle in the Preferences dialog box to off.

3.5.3 Post-Installation Tuning

After you install DECwrite, you might want to adjust your system to enhance performance or lower the use of some system resources. For detailed information about tuning your OpenVMS system, see the *Guide to OpenVMS Performance Management.*

DECwrite performance, particularly with large documents is dependent on the amount of memory available. Workstations running DECwrite should be tuned with this in mind. The critical parameters or quotas that control how much memory is available to user processes are:

- The working set related quotas in AUTHORIZE:

  WSDEFAULT
  WSQUOTA
  WSEXTENT

- The page file quota in AUTHORIZE:

  PGFLQUO

- The SYSGEN parameters:

  VIRTUALPAGECNT
  WSMAX

Setting the working set quotas too low causes unnecessary paging and swapping. WSDEF and WSQUOTA should be approximately 256 and 512, respectively. Since other DECwindows processes, such as the window manager, run with a user's quotas, it is usually best to start processes with this small amount of memory and let them get more memory as they need it.

In the case of a workstation, the general strategy is to let DECwrite access as much physical memory as possible. In order to maximize a process's use of physical memory, WSEXTENT can be set very high, close to the value of WSMAX. For example, on a 24 megabyte (MB) workstation with 48,000 pages

of memory available, approximately 6,000 pages are permanently allocated by VMS. The remaining 42,000 pages are available to user processes.

Start by using MODPARAMS.DAT and setting a MIN_WSMAX equal to the total number of physical pages on the system. Run AUTOGEN and AUTOGEN will recommend the highest reasonable value for WSMAX. In this example, AUTOGEN recommends a value of approximately 34,000. Edit MODPARAMS.DAT to use this recommended value. This sort of tuning would be unrealistic on most timesharing and server machines, but it is not unrealistic for a single-user workstation.

When the DECwrite user is working with very large documents, such as those containing large color images, make sure VIRTUALPAGECNT is large enough. You can determine the virtual memory requirements of a DECwrite session by using SHOW PROCESS/CONTINUOUS and watching the value of Virtual Pages. A DECwrite user's page file quota, PGFLQUO, should be at least as large as VIRTUALPAGECNT and usually larger.

3.6 User Account Requirements

To use DECwrite, user accounts on your system must have certain privileges and quotas. The next two sections contain information about these requirements.

3.6.1 Privileges

To use DECwrite, each account must have at least the TMPMBX and NETMBX privileges. Use the OpenVMS Authorize Utility to determine whether users have the privileges they require.

3.6.2 User Account Quotas

You must make sure that the appropriate user accounts have sufficient quotas to be able to use DECwrite. Table 3–5 summarizes minimum recommended process quotas.

Table 3–5 User Account Quotas

Account Quota	Value
ASTLM	10
BIOLM	10

(continued on next page)

Table 3–5 (Cont.) User Account Quotas

Account Quota	Value
BYTLM	35 000
DIOLM	10
ENQLM	110
FILLM	10
MAXDETACH	0[1]
PGFLQUO	40 000
PRCLM	2
TQELM	10
WSDEF	256
WSQUOTA	512
WSEXTENT	4 100[2]

[1]LiveLink applications run as detached processes. The MAXDETACH quota controls how many LiveLink processes a user can run at one time.

[2]On a single-user workstation, the value of the system parameter WSEXTENT can be set equal to the value of WSMAX, for better performance.

3.6.3 FileView Account Quotas

If you want to run DECwrite from FileView, special tuning is required.

FileView runs each task as a subprocess; therefore, your process quotas that are depleted by subprocess creation dictate how many FileView tasks you can run simultaneously.

Before creating a new process, FileView checks these quotas and displays a warning in a dialog box if any are too low. The quota name is included in the message and can be one of the following:

- ASTLM
- BIOLM
- BYTLM
- FILLM
- PGFLQUOTA
- PRCLM
- TQELM

3.6 User Account Requirements

The most likely quotas to be consumed are your process limit (PRCLM) and buffered I/O byte count (BYTLM). To run DECwrite from FileView, your BYTLM quota should be a minimum of 35 000, with an additional 5000 for each task you want to be able to run simultaneously. To be able to run five simultaneous tasks, your PRCLM quota must be at least 5, and your BYLTM quota must be at least 55 000. Process creation can reduce remaining ASTCNT and BIOCNT by 3, and FILCNT by 2. PGFLQUOTA usage is highly dependent on the task.

FileView checks these quotas when creating its subprocesses; however, some quotas, such as PGFLQUOTA, are not consumed until the application is running. Therefore, if several applications are invoked at once, it is possible that PGFLQUOTA will be exhausted once the applications start up, without the error being detected by FileView. In this case, the applications can crash when the quota is exceeded.

When process creation fails due to quota exhaustion, FileView marks the task as Pending in the Work in Progress box until one of the running tasks has completed. The Pending task then becomes Active. If you try to start an additional task after the quota message has been displayed, the task is marked Pending, and the Work in Progress box is displayed without a further warning message.

3.6.4 Modifying User Account Quotas

User account quotas are stored in the file SYSUAF.DAT. Use the Authorize Utility to verify and change user account quotas. First, set your directory to SYS$SYSTEM, and then run AUTHORIZE:

```
$ SET DEFAULT SYS$SYSTEM
$ RUN AUTHORIZE
UAF>
```

At the AUTHORIZE prompt (UAF>), use the SHOW command with an account name to check a particular account. For example:

```
UAF> SHOW SMITH
```

To change a quota, use the MODIFY command at the UAF> prompt. MODIFY has the following format:

```
MODIFY account-name /quota-name=nnnn
```

The following example changes the FILLM quota for the SMITH account and then exits from the utility:

```
UAF> MODIFY SMITH /FILLM=10
UAF> EXIT
```

After you exit from the utility, the OpenVMS system displays messages indicating whether or not changes were made. Once you have finished making the changes, the users must log out and log in again for the new quotas to take effect.

For more information about modifying account quotas, see the description of the Authorize Utility in the OpenVMS system management and operations documentation.

3.7 Installation Verification Procedures

The DECwrite Installation Verification Procedure (IVP) runs automatically at the end of the DECwrite installation procedure if you enter YES to that option during the installation.

Note

Before you run the IVP for any language, ensure that you correctly set the language you will use.

If you did not enter YES, you may want to run the IVP later. If run later, the IVP needs two separate command procedures:

```
$ @SYS$TEST:WRITE$IVP.COM         ! DECwrite
$ @SYS$TEST:INTLxx$IVP.COM           ! Bundled spell checking dictionary
```

where *xx* is the two letter code for the lexicon included in your DECwrite kit. Table 3–6 lists language codes used for bundled lexicons.

Table 3–6 Lexicons supplied by DECwrite Kits

DECwrite Kit	Language Variant	Bundled Lexicon	IVP Language Code
DECWRITE020	American English	American English	AE
DECWRITE020	British English	British English	BE

You receive a message indicating whether the IVP succeeded or failed.

3.8 Invoking DECwrite

You can run DECwrite from the Session Manager, from FileView, or from the command line (DCL). To run DECwrite, you must use the appropriate display device. See your SSA for the list of supported display devices.

To invoke a DECwrite language variant:

1. Select the language corresponding to the DECwrite language variant you want to use, by choosing Language from the Session Manager Options menu and choosing the appropriate language from the Language Options dialog box.
2. Run DECwrite using one of the methods described below.

Note

If you switch to a language for which there is no DECwrite language variant, DECwrite will not run. If the DECwrite American English product variant is installed, that will be run instead.

3.8.1 Running DECwrite from the Session Manager

The installation automatically adds DECwrite as an item on the Session Manager Applications menu.

To invoke DECwrite using a particular language:

1. From the Session Manager, choose Customize ⇒ Language.
2. Choose the appropriate language from the Session Language list box.
3. Choose DECwrite from the Session Manager's Applications menu.

Note

If you use a graphics terminal (VT1200, for example), you must first establish X-session on the node where DECwrite is installed; then, repeat the actions described in this section.

3.8.2 Running DECwrite from FileView

The installation adds DECwrite as an item on the FileView Applications menu. You should inform all users after the installation that DECwrite is available as an option on their FileView Applications menu.

In FileView, if you double click on a file with the extension .doc or .doc_style, DECwrite is automatically invoked to edit that document.

For information about adjusting quotas to run DECwrite in FileView, see Section 3.6.2.

3.8.3 Running DECwrite from DCL

To run DECwrite from the DCL command line, enter at the $ prompt:

```
run sys$system:decwrite
```

If you want to run DECwrite from your workstation in a language other than English, choose the appropriate language from the Session Language list on the Customize Language dialog box.

You can also add a line to your login.com file to define a symbol to run DECwrite. For example:

```
decwrite :== $ sys$system:decwrite
```

You could, after logging out and then logging back in or running login.com, enter at the DCL $ prompt:

```
decwrite filename
```

This would invoke DECwrite and open the named document if it already exists, or display the New Document Attributes dialog box if you have specified a new document.

3.9 DECwrite Sample Documents

During installation, DECwrite places sample files for each of its components in the following directories:

- WRITE$EXAMPLES
- CHART$EXAMPLES

The WRITE$$EXAMPLES directory contains:

- The documents used for the Getting Started exercises
- Several demonstration documents
- A sample equation for use with the DECwrite Equation Editor

3.9 DECwrite Sample Documents

- Several sample Encapsulated PostScript files for use with the DECwrite Link to Picture option

For a complete list of all the examples files, read the file *readme.txt* in the *write$examples* directory.

For instructions on using the DECwrite Getting Started exercises and the online tutorial, refer to the *DECwrite User's Guide*.

The CHART$EXAMPLES directory contains a sample chart file used in the DECchart exercises. For instructions on the DECchart exercises, refer to the *DECwrite User's Guide*.

3.10 Compiling Fonts on Remote Workstations

Your DECwrite software kit includes bitmap definition font files. If you want to display DECwrite on a system not specifically supported by your software kit, you will need to compile and install the fonts on the remote system.

For example, if you have purchased DECwrite for DEC OSF/1 AXP and want to display DECwrite on an OpenVMS workstation, follow the procedure in Section 3.10.1.

On the other hand, if you have purchased DECwrite for OpenVMS and want to display DECwrite to an OpenVMS system where DECwrite is not installed, simply perform a font only installation, as described in the installation procedure in Section 2.2.

After installing the DECwrite kit, the bitmap distribution format (.bdf) files can be found in the following directories:

- On OpenVMS systems:

```
SYS$SYSROOT:[SYSHLP.EXAMPLES.DECWRITE.FONTS]
```

- On DEC OSF/1 AXP systems:

```
/usr/lib/X11/fonts/private/75dpi
/usr/lib/X11/fonts/private/100dpi
```

The following sections describe how to compile and install the DECwrite fonts on OpenVMS and DEC OSF/1 AXP displays, and on PCs using DECwindows.

3.10 Compiling Fonts on Remote Workstations

3.10.1 Compiling and Installing Fonts on OpenVMS Systems

To compile and install the fonts on an OpenVMS system:

1. From a system account, copy the files with a .bdf extension to a temporary working directory on the OpenVMS workstation that will display DECwrite.
2. Compile each of the files using command in the following format:

   ```
   $ FONT fontfilename.BDF
   ```

   The FONT command creates a file with a .DECW$FONT file extension.
3. Copy all the 75 dpi font files into the 75 dpi font area using the following command:

   ```
   $ COPY/LOG *_75.DECW$FONT SYS$COMMON:[SYSFONT.DECW.USER_75DPI]
   ```
4. Copy all the 100 dpi font files into the 100 dpi font area using the following command:

   ```
   $ COPY/LOG *_100.DECW$FONT SYS$COMMON:[SYSFONT.DECW.USER_100DPI]
   ```
5. Update the DECwindows Motif server's font directory file using the following command:

   ```
   $ @SYS$UPDATE:DECW$MKFONTDIR
   ```
6. Restart the DECwindows Motif server using the following command:

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

3.10.2 Compiling and Installing Fonts on DEC OSF/1 AXP Systems

To compile and install the fonts on a DEC OSF/1 AXP workstation:

1. From a privileged account, copy the files with a .bdf extension to a temporary working directory on the OSF/1 workstation that will display DECwrite.
2. Compile each font file using a command in the following format:

   ```
   /usr/bin/dxfc fontfilename.bdf >fontfilename.pcf
   ```
3. Copy all the 75 dpi font files into the 75 dpi font area using the following command:

   ```
   cp file.pcf /usr/lib/X11/fonts/private/75dpi/
   ```

4. Copy all the 100 dpi font files into the 100 dpi font area using this command:

   ```
   cp file.pcf /usr/lib/X11/fonts/private/100dpi/
   ```

5. Enter the following commands:

   ```
   mkfontdir /usr/lib/X11/fonts/private/75dpi
   mkfontdir /usr/lib/X11/fonts/private/100dpi
   ```

6. Restart the DECwindows Motif server.

3.10.3 Compiling and Installing Fonts on a PC DECwindows System

To compile and install the fonts on a PC DECwindows system:

1. Copy the .bdf files from the system where DECwrite is installed to a directory on your PC. The PC file names must be no more than eight characters followed by a three-character extension. For example, PRESENT_BULLETS24_75.BDF could be named PB2475.BDF. Make sure the file names are unique so that existing files are not overwritten.

   Note

   You need write access to the drive where you are compiling the font file.

2. Compile the .bdf source file on the PATHWORKS system service drive in one of the existing directories (for example, use the \XSERVER\FONTS75 directory for 75 dpi fonts), as follows:

   ```
   C:\> CD M:\XSERVER\FONTS100
   M:\XSERVER\FONTS100> COPY C:NEWFONT.BDF
   M:\XSERVER\FONTS100> DWFONT NEWFONT.BDF
   ```

   For detailed information about compiling and installing fonts on a PC DECwindows Motif system, see the PATHWORKS *PC DECwindows Motif User's Guide*.

3.11 Determining and Reporting Problems

If you encounter a problem while using DECwrite, report it to Digital. Depending on the nature of the problem and the type of support you have, you can take one of the following actions:

- Call Digital if your software contract or warranty agreement entitles you to telephone support.

3.11 Determining and Reporting Problems

- Submit a Software Performance Report (SPR).
- Fill out and submit a Reader's Comments form, if the problem has to do with the DECwrite documentation. There are Reader's Comments forms at the back of each manual. Use the form from the manual in which you found the error. Include the section and page number.

Review the Software Product Description (SPD) and Warranty Addendum for warranty information. If you encounter a problem during the warranty period, report the problem as indicated above, or follow alternate instructions provided by Digital for reporting SPD nonconformance problems.

4
Using the Font Utility

4.1 Adding New Fonts to the Family Menu

In addition to the fonts supplied by DECwrite and DECwindows, you may decide that you need additional fonts. You can add new fonts to your system by installing:

- One or more font kits from the DECfonts™ Typeface Collection
- Fonts supplied by third parties
- Fonts that you create yourself

Once you have installed the new fonts on your system, you can add their family names to the DECwrite Family menu. This chapter describes how to use the Font Utility to add new names to the Family menu.

Note

To perform the operations described in this guide, you must be logged in as SYSTEM on an OpenVMS system, and you must have privileges that allow you to copy files into protected areas and, on some systems, to restart the DECwindows Motif Display Server.

Here are some important reminders:

- Fonts must be installed on the system before you can add their names to the Family menu. Installing new fonts involves copying, compiling, and placing the various font files (screen font files, Adobe® Font Metrics (AFM) files, and PostScript® outline files) in their proper directories.
- If you have installed a DECfonts font kit, its installation procedure automatically copies, compiles, and places all font files in the proper directories for you.

4.1 Adding New Fonts to the Family Menu

- For third-party or user-created fonts, you must install all font files yourself. Follow the instructions in Section 4.3 before continuing.

Caution

Since running the Font Utility can change the list of available fonts, instruct system users to recover any aborted DECwrite sessions before using the Font Utility. If users fail to do this before you run the Font Utility, subsequent recoveries may result in changes to the fonts in their documents.

4.1.1 Overview

There are several ways to use the Font Utility to add fonts to the DECwrite Family menu. In general, a Family menu entry corresponds to a font family, although large font families require more than one menu entry. This overview defines terms and discusses factors that can help you determine which method to use.

4.1.1.1 Terms Used in This Chapter

This section defines font-related terms used throughout this chapter.

- A *font family* is a collection of typefaces that all share the same basic design but differ in characteristics such as width, weight, and slant. Examples of font families are Helvetica®, Times®, and New Century Schoolbook.

  Width (for example, narrow) indicates the thickness of each character in the font, relative to those in other fonts in the font family. Weight (for example, bold) is the heaviness or blackness of the characters in a font. Slant (for example, oblique) indicates whether the font is upright or italicized.

- A *typeface* is a visually consistent subset of the font family that shares characteristics such as width, weight, and slant. An example of a typeface is Helvetica Narrow Bold Oblique.

- A *font* is an instance of a typeface, often of a single size.

Fonts installed on the system that meet Font Utility requirements for addition to the Family menu make up the *New* list. (For information on Font Utility requirements see Section 4.3 and Sections 4.4.2.5 and 4.4.2.6.) All fonts in the same family and with the same width and character set encoding are associated with a single entry in the New list. Fonts already associated with the Family menu make up the *Menu* list.

4.1 Adding New Fonts to the Family Menu

Creating Family menu entries consists of moving fonts associated with a New list entry to form one or more entries on the Family menu. Deleting a Family menu entry reverses the process.

4.1.1.2 Ways to Add Fonts

The Font Utility provides the following ways to add new fonts:

- All at once, using defaults

  The Font Utility adds all new fonts using default weight and slant assignments.

  This method is the simplest and fastest way to add new fonts.

- Individually, using defaults

  The Font Utility adds fonts that correspond to a single entry on the New list using default weight and slant assignments.

  This method is useful if you installed many typefaces on the system, but want to add only a few typefaces to the DECwrite Family menu.

- Individually, with customization

  The Font Utility adds fonts that correspond to a single entry on the New list. You can assign weights and slants for a Family menu entry from weights and slants available for the New list entry and those that the Font Utility recognizes.

  Use this method to override the default assignments that the Font Utility would normally make for weights and slants.

A wide range of font characteristics exist. The Font Utility recognizes the slants and weights[1] shown in Table 4–1.

[1] The DECfonts Typeface Collection may supply additional slants and weights that the Font Utility will also recognize.

4.1 Adding New Fonts to the Family Menu

Table 4–1 Slants and Weights Recognized by the Font Utility

Slants			
Roman	Italic	Oblique	Cursive
Slanted	Reverse italic	Reverse oblique	Kursive
Weights			
Thin	Light	Demi bold	Ultra bold
Thinline	Medium	Semi bold	Heavy
Fineline	Regular	Bold	Heavyface
Ultra light	Book	Bold 2	Black
Extra light	Nord	Extra bold	Ultra
Semilight	Demi		Poster

Examples in this chapter use the fonts supplied in the DECfonts LaserWriter® Emulation font kit. These fonts must first be installed on the system according to the instructions in the *DECfonts Typeface Collection Font Kit Installation and User's Guide*.

4.1.2 Adding Fonts From All New List Entries, Using Defaults

Adding fonts all at once is the simplest and fastest way to add new fonts. The Font Utility adds all the fonts you have installed on your system using default assignments for weights and slants. This allows you to complete the process from the command line level without entering any further commands through the Font Utility.

To add new fonts all at once, without any customization, start the Font Utility by following the instructions in Section 4.2.1, then run the Font Utility automatically. (See Example 4–1.)

The Font Utility displays messages on your screen in the following format, then returns you to the command line:

Example 4–1 Adding All Fonts Using Defaults

```
Font Utility V3.0-02
Gathering screen and printer font information from system - please wait...
10...9...8...7...6...5...4...3...2...1...0

Adding all the following fonts:
  Helvetica Narrow
  ITC Bookman
  ITC Zapf Chancery
  ITC Zapf Dingbats
  Palatino

All fonts successfully added

Saving to file write$fonts.ini
```

The *write$fonts.ini* file is the font configuration file created during DECwrite installation. The procedure automatically creates a backup copy of the file, called *write$fonts.ini_backup*.

4.1.3 Adding Fonts From a Single New List Entry

The procedures in the next two sections describe how to add the fonts that correspond to a single entry on the New list. Both procedures require that you run the Font Utility interactively. This gives you access to all the Font Utility commands described in Section 4.2. These commands give you additional flexibility in working with fonts. For example:

- Before adding fonts, you can use the *show* command to see the contents of the New list. This confirms that font families have been installed on the system and are available to be added to the DECwrite Family menu.
- Without leaving the Font Utility, you can use both the *add* command (described in Section 4.1.3.1) to add fonts with default weight and slant assignments, and the *add confirm* command (described in Section 4.1.3.2) to customize weight and slant assignments.
- You can also hide Family menu entries (so that they are usable but do not appear on the menu), reveal hidden entries, and rename Family menu entries.

4.1 Adding New Fonts to the Family Menu

4.1.3.1 Using Defaults

To add fonts one at a time using the defaults determined by the Font Utility:

1. Start the Font Utility by following the instructions in Section 4.2.1; run the Font Utility interactively.

   The Font Utility starts up, then prompts you to enter a command.

2. Enter `add`, followed by the name of the New list entry whose fonts you want to add, in quotation marks (" ").

   For example:

   ```
   Enter command> add "Palatino"
   ```

   The Font Utility reports the Family menu entries that it created, then prompts you again.

3. Enter `exit` to leave the Font Utility.

   The Font Utility asks if you want to replace the input file with a newer version of the *write$fonts.ini* file.

4. Enter `y`.

   The Font Utility confirms the creation of a new version of the file *write$fonts.ini*, creates a backup version of the file, then creates the new version and returns you to the command line.

4.1.3.2 Customizing

You may want to customize the assignment of font weights and slants if:

- The New list entry has many choices available for weight and slant
- You want a bold or italic font to be the normal font when using DECwrite.

To add a font that corresponds to a New list entry and customize the weight and slant assignments using the Font Utility:

1. Start the Font Utility by following the instructions in Section 4.2.1; run the Font Utility interactively.

   The Font Utility starts up, then prompts you to enter a command.

2. Enter `add confirm`, followed by the name of the New list entry whose fonts you want to add, in quotation marks (" ").

   For example:

   ```
   Enter command> add confirm "Palatino"
   ```

4.1 Adding New Fonts to the Family Menu

The Font Utility displays the choices that are available for the font weight, and the defaults it has chosen, followed by a prompt asking if the choices are correct. See Example 4–2 for an example of adding fonts with customization.

3. Do one of the following:
   - Enter `y` to accept the Font Utility defaults, then proceed to step 5.
   - Enter `n` to make other assignments for the Family menu entry, then continue at step 4.
   - Enter `a` to abandon the *add* command.
4. To specify new font weight settings:
   a. Enter the number corresponding to the desired *Normal* font weight, or enter 0 to refrain from choosing a font for the normal setting.
   b. Enter the number corresponding to the desired *Bold* font weight, or enter 0.
   c. Answer `y` at the prompt when you are sure your choices are correct.
5. Based on the choices displayed for the font slant, do one of the following:
   - Enter `y` to accept the Font Utility defaults. The Font Utility reports the Family menu entry that it created. Proceed to step 7.
   - Enter `n` to make other assignments for the Family menu entry, then continue at step 6.
   - Enter `a` to abandon the *add* command.
6. To specify new font slant settings:
   a. Enter the number corresponding to the desired *Upright* font slant, or enter 0 to refrain from choosing a font for the upright setting.
   b. Enter the number corresponding to the desired *Italic* font slant, or enter 0.
   c. Answer `y` at the prompt when you are sure your choices are correct. The Font Utility reports the Family menu entry that it created.
7. Make additional weight and slant assignments or enter another command:
   - If more typefaces remain for the specified New list entry, the Font Utility displays the remaining choices for font weight, the defaults it has chosen, and asks if the choices are correct. The process starts again at step 3.

- If all typefaces for the specified New list entry are assigned to a Family menu entry, the Font Utility prompts you for another command.

You can use the *rename* command to change the Family menu entry name assigned by the Font Utility to another name.

8. When you finish adding New list entries to the Menu list, enter `exit` to leave the Font Utility.

   The Font Utility asks if you want to replace the input file with a newer version.

9. Enter `y`.

   The Font Utility confirms the creation of a new version of the file *write$fonts.ini*, creates a backup version of the file, then creates the new version and returns you to the command line.

Example 4–2 shows how the *confirm* option is used to customize font weight assignments for a hypothetical New list entry "Martian Miter".

Note that in cases where Family menu entries would otherwise be ambiguous (for example, if more than two weights are available for typefaces with the same combination of family name, width, and character set encoding) the Font Utility appends weight names to the Family menu entry.

Because more Martian Miter typefaces are available for assignment, the Font Utility continues. If you choose, you can make additional weight and slant assignments.

Example 4–2 Adding Fonts with Customization

```
$ wfont :== $write$fontutil Return
$ wfont write$fonts.ini Return

Font Utility V3.0-02
Gathering screen and printer font information from system - please wait...
10...9...8...7...6...5...4...3...2...1...0
Enter command> add confirm "Martian Miter" Return
Confirming weight choices for font "Martian Miter"
Weights available:
   (1) light  (roman,italic)
   (2) medium  (roman,italic)
   (3) bold  (roman,italic)
   (4) black  (roman,italic)
   (5) ultrablack  (roman)
```

(continued on next page)

Example 4–2 (Cont.) Adding Fonts with Customization

```
Weights chosen by the Font Utility:
   - (2) medium as normal weight
   - (3) bold as bold weight

Are the above weight choices correct [yes/no/abandon]: n Return
Pick one or two of these available weights:
   (0) none
   (1) light  (roman,italic)
   (2) medium  (roman,italic)
   (3) bold  (roman,italic)
   (4) black  (roman,italic)
   (5) ultrablack  (roman)

Enter normal weight number from list above [0 to 5]: 1 Return
Enter bold weight number from list above [0 to 5]: 4 Return
Weights you chose:
   - (1) light as normal weight
   - (4) black as bold weight

Are the above weight choices correct [yes/no/abandon]: y Return

Confirming slant choices for font "Martian Miter"
Slants available for weights already chosen:
   (1) roman
   (2) italic

Slants chosen by the Font Utility:
   - (1) roman as upright slant
   - (2) italic as italic slant

Are the above slant choices correct [yes/no/abandon]: y Return
Font "Martian Miter Light/Black" added
```

Note that in cases where Family menu entries would otherwise be ambiguous (for example, if more than two weights are available for typefaces with the same combination of family name, width, and character set encoding) the Font Utility appends weight names to the Family menu entry.

Because more Martian Miter typefaces are available for assignment, the Font Utility continues. If you choose, you can make additional weight and slant assignments.

```
Confirming weight choices for font "Martian Miter"
Weights available:
   (1) medium  (roman,italic)
   (2) bold  (roman,italic)
   (3) ultrablack  (roman)
```

4.1 Adding New Fonts to the Family Menu

```
Weights chosen by the Font Utility:
   - (1) medium as normal weight
   - (2) bold as bold weight

Are the above weight choices correct [yes/no/abandon]: y Return

Confirming slant choices for font "Martian Miter"
Slants available for weights already chosen:
   (1) roman
   (2) italic

Slants chosen by the Font Utility:
   - (1) roman as upright slant
   - (2) italic as italic slant

Are the above slant choices correct [yes/no/abandon]: y Return
Font "Martian Miter Medium/Bold" added

Confirming weight choices for font "Martian Miter"
Weights available:
   (1) ultrablack  (roman)

Weights chosen by the Font Utility:
   - No normal weight
   - (1) ultrablack as bold weight

Are the above weight choices correct [yes/no/abandon]: y Return

Confirming slant choices for font "Martian Miter"
Slants available for weights already chosen:
   (1) roman

Slants chosen by the Font Utility:
   - (1) roman as upright slant
   - No italic slant

Are the above slant choices correct [yes/no/abandon]: y Return
Font "Martian Miter Ultrablack" added
Enter command> exit Return

Do you really want to overwrite write$fonts.ini (y or n) [n]? y Return

Saving to file write$fonts.ini

$
```

If more than one character set encoding exists for typefaces of a font family that have the same width, the Font Utility also appends the name of the character set to the Family menu entry name.

If the default name duplicates an existing Family menu entry name, the Font Utility uses a Family menu entry name that includes a number starting at 2 instead.

For example, the name assignment might take the form:

font_family width weight/weight n character_set

where *n* begins at 2.

You can use the *rename* command to change the assigned Family menu entry name to another name.

4.2 Font Utility Commands and Descriptions

The DECwrite Font Utility allows you to add, delete, and otherwise manage entries in the DECwrite Family menu. This chapter describes how to:

- Start the Font Utility
- Use all Font Utility commands
- Change characteristics of Family menu entries
- Reveal the Present Bullets hidden menu entry

4.2.1 Starting the Font Utility

To start the Font Utility, follow these steps:

1. Set the display variable using the following command:

   ```
   $ set display/create/node=nodename
   ```

   For *nodename*, enter the node name of your workstation.

2. Go to the proper directory using the following command:

   ```
   $ set default sys$common:[syslib]
   ```

3. Run the Font Utility.

   You can run the Font Utility automatically or interactively. By running the Font Utility interactively, you have access to the full set of Font Utility commands.

   - To run the Font Utility automatically, use the following command:

     ```
     $ wfont :== $write$fontutil
     $ wfont -n write$fonts.ini
     ```

   - To run the Font Utility interactively, use the following command:

     ```
     $ wfont :== $write$fontutil
     $ wfont write$fonts.ini
     ```

   In either case, you can specify an input file other than the configuration file (*write$fonts.ini).*

You can also specify an output file, causing changes to be saved to that file rather than to the input file.

Upon exiting, the Font Utility automatically creates a backup version of the output file (or the input file if an output file is not specified), then saves changes to a new version of the output file.

For example, the following command causes changes to be saved to an output file called *newfonts.ini*:

```
$ wfont write$fonts.ini newfonts.ini
```

4.2.2 Font Utility Commands

Font Utility commands use two font lists: the New list and the Menu list, as described in Section 4.1.1.1. Table 4–2 describes all Font Utility commands.

Note that all references to names on the New list or Menu list must be entered within quotation marks. The commands are not case sensitive, although some of their arguments may be.

Caution

Recover any aborted DECwrite sessions before using the Font Utility, or the recovery may use the wrong fonts.

Table 4–2 DECwrite Font Utility Commands

Command	Format, Effects, and Descriptions
add	add [confirm] *"newlistentry"* If you specify *newlistentry*, the *add* command creates one or more related entries on the Menu list and removes the entry from the New list. If you specify the *confirm* option, the Font Utility displays all the weight and slant choices for *newlistentry* and lets you confirm default assignments or pick new assignments. If you do not specify *newlistentry*, the *add* command prompts for it with *Family name:*. If you press Return without specifying a name, the *add* command changes nothing.

(continued on next page)

Table 4–2 (Cont.) DECwrite Font Utility Commands

Command	Format, Effects, and Descriptions
add new	add new [confirm] The *add new* command moves all the fonts associated with the New list to the Menu list. If you specify the *confirm* option, the Font Utility confirms the weight and slant assignments as they are being added. If you have many typefaces and do not need to customize their font and weight assignments, omit the *confirm* option to reduce the time required to add typefaces.
delete	delete "*name*" *Name* can be a Menu list entry name or a font family name with the same width and character set encoding. The *delete* command looks for *name* in the Menu list. If *name* is found, the command removes the Menu list entry and returns the associated fonts to the New list. If *name* is not found, the command looks for one or more Menu list entries whose font family name and width and character set encoding matches *name* and returns these entries to the New List. If you do not specify *name*, the *delete* command prompts for it with *Family name:*. If you press Return without specifying a name, the *delete* command changes nothing.
exit	exit [*outfilename*] The *exit* command exits the Font Utility and saves the changes that you made to *outfilename*. If you do not specify *outfilename*, the Font Utility saves the changes to the output file named at startup or to the input file if you did not specify an output file. The Font Utility automatically creates a backup copy of the previous version of the output file and assigns it the extension *.ini_backup*. The Font Utility may ask you to verify that you want to write to the indicated file. If you respond with `yes`, you exit the Font Utility and your changes are saved. If you respond with `no`, no action is taken and you can continue to use the Font Utility.

(continued on next page)

4.2 Font Utility Commands and Descriptions

Table 4–2 (Cont.) DECwrite Font Utility Commands

Command	Format, Effects, and Descriptions
hide	hide "*menulistentry*" The *hide* command hides *menulistentry* from the Menu list. Hidden entries are available to existing DECwrite files read in, but are not displayed on the DECwrite Family menu. This feature is useful for hiding the DECmath entries from the menu, or for excluding other entries without deleting them. If you do not specify *menulistentry*, the *hide* command prompts for it with *Family name:*. If you press Return without specifying an entry, the *hide* command changes nothing. You can reverse the effects of the *hide* command by using the *reveal* command.
quit	quit The *quit* command terminates the session without saving changes. If you made changes (by using any command except *show*), the Font Utility prompts you to confirm that you want to quit without saving your changes. If you answer `yes`, the Font Utility session terminates without saving any changes. If you answer `no`, the utility saves no changes and the Font Utility continues to run. If you have made no changes, the Font Utility session ends without asking for confirmation.
rename	rename "*oldmenulistentry*" "*newmenulistentry*" The *rename* command renames the indicated Menu list entry to a new name. The names you change with the *rename* command are those displayed on the Family menu. Renaming a Menu list entry does not change file names or affect the internal pointers used to identify fonts. If you do not specify *oldmenulistentry*, the Font Utility prompts *From:*. If you do not specify *newmenulistentry*, the Font Utility prompts *To:*. If you press Return at either prompt without specifying an entry, no change is made, and you can continue to run the Font Utility.

(continued on next page)

Table 4–2 (Cont.) DECwrite Font Utility Commands

Command	Format, Effects, and Descriptions
reveal	reveal "*menulistentry*" The *reveal* command makes previously hidden *menulistentry* visible on the Family menu. See the *hide* command for details about hidden Menu list entries. If you do not specify *menulistentry*, the *reveal* command prompts for it with *Family name:*. If you press Return without specifying an entry, the utility displays nothing.
show	show [full] [new|menu] [*"name"*] The *show* command displays the entries with the indicated *name* and optionally their corresponding screen font names, PostScript outline file names, and Adobe Font Metrics (AFM) file names. If you do not specify *name* or an option, the *show* command defaults to *show new*, showing all entries in the New list. The options are as follows: • full Displays additional information for each entry, consisting of screen font names, PostScript outline file names, and AFM file names • new Displays all entries in the New list, or displays a specific entry if you specify *name* • menu Displays all entries in the Menu list, or displays a specific entry if you specify *name* • *"name"* Displays the indicated entries in either the New list, Menu list, or both

4.2.3 Adding Point Sizes for Existing Family Menu Entries

After you associate a typeface with a Family menu entry, you can provide additional point sizes for the typeface. This involves the following steps:

1. Install, on the system, the new screen font files that provide the new point sizes. See Section 4.3.
2. Run the Font Utility interactively, as described in Section 4.2.1.
3. Enter `delete`, followed by the existing Family menu entry in quotation marks (" ") to delete the entry from the Family menu.

4. Enter `exit` to exit from the Font Utility.
5. Run the Font Utility again.
6. To add the typeface back to the Family menu, enter `add`, followed by the font family name with the same width and character set encoding, in quotation marks.

   The typeface, including the new point sizes, is added to the Family menu, with the same slants and weights it had previously.
7. Enter `exit` to leave the Font Utility.

4.2.4 Revealing the Present Bullets Hidden Menu List Entry

The Present Bullets typeface is available but hidden on DECwrite Version 3.0 systems. This means that the Present Bullets typeface is available to existing files read in to the application, but is not displayed on the Family menu.

To make the entry visible on the Family menu, use the *reveal* command as follows:

1. Start the Font Utility by following the instructions in Section 4.2.1. Run the Font Utility interactively.

   The Font Utility starts up, then prompts you to enter a command.
2. Enter `reveal`, followed by the name of the entry you are revealing, in quotation marks (" ").

   For example:

   ```
   Enter command> reveal "Present Bullets"
   ```

   The Font Utility reports that the entry has been revealed, then prompts you again.
3. Enter `exit`.

   The Font Utility asks if you want to replace the input file with a newer version of *write$fonts.ini*.
4. Enter `y`.

   The Font Utility confirms the creation of a new version of the file, then returns you to the command line.

4.3 Installing Third-Party Font Files

To install third-party or user-created fonts, you must first create or copy the font files to your system, then compile and place the font files in the appropriate directories. If you are installing a DECfonts font kit, its installation procedure performs these operations for you.

Three types of files are associated with each typeface:

- *Screen font files* (also called bitmap screen fonts), for various point sizes, which contain bitmaps for rendering each character on the screen. Screen font files have the extension *.bdf*; they may also have the extension *.decw$bdf*.
- An *Adobe Font Metrics (AFM) file* (also called a font metrics file), which contains the dimensions of each character so that characters can be displayed similarly on the screen and in the PostScript output. AFM files have the extension *.afm*.
- A *PostScript outline file* (also called a Type 1 outline font), which contains the definitions for each character. These definitions allow a PostScript printer to print a file that uses the typeface. PostScript outline files have the extension *.ps*.

4.3.1 Installing Fonts on an OpenVMS System

To install new font files on an OpenVMS system:

1. Copy or create the font files on your system.
2. Compile the screen font files. At the command line, enter `font`, followed by the name of each *.bdf* or *.decw$bdf* screen font file, using the following format:

```
$ font filename-1.bdf
$ font filename-2.decw$bdf
    .
    .
    .
$ font filename-n.bdf
```

   This compiles each file with the OpenVMS Font Compiler and creates a new file with the extension *.decw$font*.

3. Copy the resulting *.decw$font* files to their target areas (depending on whether the files are for 75 dpi or 100 dpi screens):

4.3 Installing Third-Party Font Files

.decw$font files	Target Area
75 dpi	sys$common:[sysfont.decw.user_75dpi]
100 dpi	sys$common:[sysfont.decw.user_100dpi]

4. Copy the AFM files (extension *.afm*) and PostScript outline files (extension *.ps*) to the target directory *sys$common:[sysfont.ps_font_metrics.user]*.
5. If you are running DECwindows Motif Version 1.1 or higher, update the font lookup file to point to both the 75 dpi and 100 dpi target areas by entering the following command:

   ```
   $ @sys$update:decw$mkfontdir
   ```

   Then, log out of your current windowing session and log in again.

4.4 Troubleshooting Font Problems

This chapter describes:

- Problems you may encounter while using the Font Utility
- Recovery procedures

4.4.1 Troubleshooting Summary

Table 4–3 lists possible problems you may encounter while using the Font Utility, and summarizes steps you can take to address them.

Table 4–3 Troubleshooting Summary

Problem Description	DECfonts Fonts	Third-Party or User-Defined Fonts
Cannot connect to DECwindows Display Server	Set the display variable (see Section 4.4.2.1). Check security access (see Section 4.4.2.2). Check that a session is logged in on your workstation (see Section 4.4.2.3).	Same solution.

(continued on next page)

Table 4–3 (Cont.) Troubleshooting Summary

Problem Description	DECfonts Fonts	Third-Party or User-Defined Fonts
Font Utility *show new* or *show menu* commands do not list all installed font families	Check that screen fonts are installed on your workstation (see Section 4.4.2.5) and that the display variable points to your workstation (see Section 4.4.2.1). Restart your windowing session or DECwindows Display Server (see Section 4.4.2.4). If installed font families still are not listed, run the Notepad application to display screen font names (see Displaying Screen Font Attributes). If the names are present, check the AFM and PostScript outline file directories (see Section 4.4.2.5). Otherwise, the AFM files were not installed by the DECfonts installation procedure, or were not installed on the correct system.	Check that screen fonts are installed on your workstation (see Section 4.4.2.5) and that the display variable points to your workstation (see Section 4.4.2.1). Restart your windowing session or DECwindows Display Server (see Section 4.4.2.4). If installed font families still are not listed, run the Notepad application to display screen font names (see Displaying Screen Font Attributes). Check system screen font, AFM, and PostScript outline file directories (see Section 4.4.2.5). Compare screen font and AFM files (see Section 4.4.2.6.)
Wrong slant or weight chosen	Run Font Utility. Delete Menu list entry, then add corresponding New list entry using the *confirm* option.	Same solution.
Cannot use added fonts when running DECwrite	Check that the fonts are installed on the workstation whose display you are using. Restart your windowing session or the DECwindows Motif Display Server (see Section 4.4.2.4).	Same solution.

(continued on next page)

4.4 Troubleshooting Font Problems

Table 4–3 (Cont.) Troubleshooting Summary

Problem Description	DECfonts Fonts	Third-Party or User-Defined Fonts
Cannot print a DECwrite document that uses a new font	Check that PostScript outline files are in required directory. (See Section 4.4.2.5.)	Same solution. In addition, compare AFM file data and PostScript outline file data (see Section 4.4.2.6).

4.4.2 Recovery Procedures

The following sections provide detailed descriptions of problem recovery procedures.

4.4.2.1 Setting the Display Variable

Because the Font Utility uses DECwindows Motif to perform screen font lookups on your workstation, it must connect to your workstation in the same way as DECwrite.

To set the display variable to connect to your workstation, follow the instructions given in Section 4.2.1.

4.4.2.2 Checking Security Access

If you are using the Font Utility on a system other than the workstation where you run DECwrite, you must ensure that your workstation provides the correct security access.

To check the security access on your workstation:

1. From the DECwindows Session Manager, choose Options ⇒ Security.
2. If the *node* that you are using and your *username* are not in the Security list on your workstation, add them, and click on OK in the dialog box.
3. Choose Options ⇒ Save Current Settings (or Customize ⇒ Save Current Settings).

4.4.2.3 Checking Session Login

If you are using the Font Utility on a system other than the workstation where you run DECwrite, check your workstation's security access (by following the instructions in Section 4.4.2.2), and make sure that you are logged in to the workstation from the display window on that workstation.

4.4.2.4 Restarting Your Windowing Session or Display Server

After you install fonts on your workstation, you must log out of your windowing session and then log in again.

4.4.2.5 Checking the Location of Screen Font, AFM, and PostScript Files

If font families that you added to the system are not listed when you use the Font Utility *show new* or *show menu* commands, they may not be installed on the required systems or in the proper directories.

Screen font files must be installed on the DECwindows server that you are using. This is typically your workstation. AFM files and PostScript outline files must be installed on the system that runs DECwrite and the Font Utility.

Table 4–4 gives the correct directory locations for these files.

Table 4–4 Font File Locations

Font Files	Directory Location
Screen font files	sys$common:[sysfont.decw.user_75dpi] sys$common:[sysfont.decw.user_100dpi]
AFM and PostScript outline files	sys$common:[sysfont.ps_font_metrics.user]

For instructions on copying the files to the proper directories, see Section 4.3.

Section 4.3 also describes the procedure you must follow to update the font lookup file or files.

4.4.2.6 Comparing Screen Font, AFM, and PostScript Outline Files

Note

This section applies to third-party and user-defined fonts only. It does not apply to the DECfonts Typeface Collection.

When you install third-party or user-defined fonts, data in the AFM files may be omitted or may not agree with corresponding data in the screen font and PostScript outline files. If this data does not agree, the Font Utility cannot see your newly installed fonts.

To determine whether the data agrees, follow these steps:

1. Display the screen font attributes.
2. Edit the relevant AFM files to see, and possibly correct, data fields.

4.4 Troubleshooting Font Problems

3. Edit the relevant PostScript files to see, and possibly correct, data fields.

Displaying Screen Font Attributes

To display the screen font attributes:

1. Run the DECwindows Notepad application.
2. Choose Customize ⇒ Font.

   The Font Attributes dialog box is displayed.
3. In the Family list box, click on the name of your new font.

   The available pixel sizes for that font are displayed in the Size List box. For 75 dpi fonts, the point size and the pixel size are approximately the same. For 100 dpi fonts, the point size is approximately three-fourths of the pixel size shown.
4. Click on any size.

   The screen font attributes weight, slant, width, spacing, and character set encoding are displayed. These, and the family name, are the attributes that you need to compare with the AFM attributes. See Table 4–5.

Editing AFM and PostScript Outline Files

For new fonts to appear in the Font Utility's *New* list, certain strings within the AFM and PostScript outline files, and corresponding attributes of the screen fonts, must agree.

If you cannot list the added fonts when you use the Font Utility *show new* or *show menu* commands, or if you cannot print a document containing a new font, you must check the data in the AFM and PostScript outline files that correspond to the weight and slant you have chosen.

Note that you need check only those files corresponding to the weights and slants assigned when the font is added to DECwrite, even though more weights and slants may be installed on the system.

Table 4–5 shows the AFM, PostScript, and screen font attributes that must agree, with ITC Bookman™ Light Italic used as an example. Except where noted, the correspondence must be content specific, but is not case sensitive.

Table 4–5 AFM, PostScript, and Screen Font Comparisons

AFM File String	Screen Font Attributes		
FullName	**Family**	**Weight**	**Slant**
FullName ITC Bookman Light Italic	ITC Bookman	Light	Italic
FamilyName	**Family**		
FamilyName ITC Bookman	ITC Bookman		
Weight	**Weight**		
Weight Light	Light		
IsFixedPitch	**Spacing**		
IsFixedPitch false	Proportional		
IsFixedPitch true	Monospaced		
EncodingScheme	**Char Set**		
EncodingScheme DECIsolatin1	ISO8859-1		
EncodingScheme AdobeStandardEncoding	Adobe-FontSpecific		
EncodingScheme FontSpecific	DEC-FONTSPECIFIC		

AFM File String	PostScript Outline File Attributes
FontName (case sensitive)	**FontName** (case sensitive)
FontName Bookman-LightItalic	FontName Bookman-LightItalic
FontName	**PostScript outline file name**
FontName Bookman-LightItalic	bookman_lightitalic.ps

The screen font attribute *Char Set* is composed of a registry string and an encoding string. In the third EncodingScheme example in Table 4–5, the registry string is *DEC-* and the encoding string is *FONTSPECIFIC*. In some cases, the registry string for the screen font is not present in the AFM EncodingScheme string, as illustrated by the example.

The following AFM and screen font encoding schemes are recognized by the Font Utility:

dec.cns11643.1986-2	jisx0208.1983-1	jisx0201-romankana
dec.dtscs.1990-2	jisx0208-kanji11	ksc5601.1987-1
gb2312.1980-1	iso8859-1	iso-8859-2
iso8859-3	iso8859-4	iso8859-5
iso8859-6	iso8859-7	iso8859-8

4.4 Troubleshooting Font Problems

In addition, the Font Utility recognizes the following AFM encoding schemes:

adobestandardencoding	decisolatin1	isolatinhebrew
applespecific	fontspecific	jis12-88-cfencoding

To view and edit the attributes of an AFM or a PostScript outline file:

1. Set default to the *sys$common:[sysfont.ps_font_metrics.user]* directory.
2. Using a text editor, edit the appropriate AFM or PostScript outline file.
3. Locate and compare the strings listed in Table 4–5.

   All AFM file strings and screen font attributes listed in the table must agree.

   An additional correspondence is necessary between the FontName strings in the AFM and PostScript outline files, and between the AFM FontName string and the name of the PostScript outline file.
4. Edit the files to ensure that the necessary correspondences are made, as follows:
   - If AFM strings do not agree with the corresponding screen font attributes, edit the appropriate AFM strings.
   - If the AFM FontName string does not match the PostScript outline file FontName string, edit the PostScript outline file.
   - If the AFM FontName string does not correspond to the name of the PostScript outline file, rename the PostScript file to create the desired correspondence by converting any uppercase characters to lowercase, converting hyphens to underscores, and assigning the file a *.ps* extension.

Additional information on AFM files is available from Adobe Systems, Incorporated in the Adobe Font Metrics Files Specification, Version 3.0.

Additional information on screen fonts is available in *X Window System™*, second edition by Robert W. Scheifler & James Gettys 1990, Digital Press. (See Part IV, X Logical Font Descriptions.)

A
Files Installed by DECwrite

This appendix lists the files installed during a DECwrite installation. It contains the following information:

- Files installed on OpenVMS AXP systems
- Files installed on OpenVMS VAX systems

A.1 Notes About the Files Installed by DECwrite

Notes:

1. The listings in this appendix do not include the clip art files provided with DECwrite. These files are listed in the *DECwrite User's Guide*.
2. The SYS$HELP, SYS$MESSAGE, SYS$LIBRARY, CDA$LIBRARY, and DECW$SYSTEM_DEFAULTS directories are all language-switched directories. DECwrite files for the American English kit will be placed in the top-level directory. Files for language variant kits will be placed in the [.xx_yy] subdirectories of these directories.
3. The names of the files installed depend on the DECwrite language variant.
4. For font-only installations, only the binary screen fonts (*.decw$font) are installed. Note also that OpenVMS DECwindows Motif already includes the DECwrite Equation Editor fonts (dutch*.decw$font) and the DECpresent Bullets font (present_bullets*.decw$font).

A.2 Files Installed on OpenVMS AXP Systems

This section lists the files that are installed during a DECwrite installation on an OpenVMS AXP system.

Files Installed in the SYS$SYSTEM Directory

```
decwrite.exe
write$fontutil.exe
write$equation.exe
```

A.2 Files Installed on OpenVMS AXP Systems

Files Installed in the SYS$LIBRARY Directory

write$prolog.ps
write$prolog1.ps
write$dnhyp01.ram
write$duhyp01.ram
write$encd01e.dsk
write$encd01g.ram
write$fnhyp01.ram
write$grhyp01.ram
write$hyp01.ram
write$ithyp01.ram
write$nbhyp01.ram
write$pohyp01.ram
write$sphyp01.ram
write$swhyp01.ram
write$ua2005l.dsk
write$ua2005l.ram
write$thesaurus.dsk
write$ail_shr.exe
xdps$dpsclientshr.exe
xdps$dpslibshr.exe
dtif$read_calcgrd.exe
ddif$write_dx.exe
write$fonts.ini

Files Installed in the CDA$LIBRARY Directory

wr_dir.doc_style
wr_examp.doc_style
wr_genrl.doc_style
wr_lettr.doc_style
wr_man.doc_style
wr_man2.doc_style
wr_memo.doc_style
wr_milsp.doc_style
wr_news.doc_style
wr_price.doc_style
wr_priv1.doc_style
wr_priv2.doc_style
wr_priv3.doc_style
wr_rpt.doc_style
wr_slidl.doc_style
wr_slidp.doc_style
wr_slidt.doc_style
wr_smemo.doc_style
wr_techj.doc_style
wr_tmemo.doc_style

A.2 Files Installed on OpenVMS AXP Systems

```
wr_exmpb.doc_style
wr_genb.doc_style
wr_manb.doc_style
wr_milsb.doc_style
wr_rptb.doc_style
wr_sll2.doc_style
```

Files Installed in the DECW$SYSTEM_DEFAULTS Directory

```
write$ui.uid
write$fontutil.uid
write$equation.uid
```

Files Installed in the SYS$HELP Directory

```
decwrite030.release_notes
decwrite030_ref.ps
write$help.decw$book
write$equation.decw$book
```

Files Installed in the SYS$STARTUP Directory

```
write$startup.com
```

Files Installed in the SYS$MANAGER Directory

```
decw$starti18n.com
```

Files Installed in the SYS$TEST Directory

```
write$ivp.com
lae$ivp.com
lbe$ivp.com
sys$common:[systest.decwrite]writeivp.doc
sys$common:[systest.decwrite]writeivp.chart
sys$common:[systest.decwrite]write$ident.com
```

Files Installed in the WRITE$EXAMPLES Directory

```
tutorial.doc
tutor.chart
tutor.txt
logo.img
offices.doc
orgchart.doc
```

A.2 Files Installed on OpenVMS AXP Systems

```
graphics.doc
ruler.doc
grid.eps
keyboard.doc
eps_art.doc
ds_320.eps
demsa.eps
draft.eps
ln03r.eps
mv3800.eps
lanserve.eps
sa600.eps
vs3100.eps
vax_6310.eps
vt340.eps
std_dev.tex
dx.macros
doc_cnv.ps
tab_cnv.ps
doc_cnv.decw$book
tab_cnv.decw$book
readme.txt
decwrite030_release_notes.decw$book
decwrite030_release_notes.decw$bookshelf
times_roman18.decw$font
times_roman18_100dpi.decw$font
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_extension12_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_italic10_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_italic12_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_italic8_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_symbol10_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_symbol12_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_symbol8_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_extension12_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_italic10_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_italic12_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_italic8_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_symbol10_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_symbol12_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_symbol8_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets8_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets10_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets12_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets14_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets18_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets24_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets36_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets48_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets72_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets8_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets10_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets12_75.bdf
```

A.2 Files Installed on OpenVMS AXP Systems

```
sys$common:[syshlp.examples.decwrite.fonts]present_bullets14_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets18_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets24_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets36_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets48_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets72_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]decbox14_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]decbox18_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]decbox24_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]decbox36_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]decpic14_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]decpic18_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]decpic24_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]decpic36_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]decbox14_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]decbox18_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]decbox24_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]decbox36_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]decpic14_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]decpic18_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]decpic24_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]decpic36_100.bdf
```

Files Installed in the LCI$LEXICONS Directory

```
lci$lexicons:am2878kh.dsk
lci$lexicons:am2878kh.ram
lci$lexicons:lae.scp
lci$lexicons:bs2878kh.dsk
lci$lexicons:bs2878kh.ram
lci$lexicons:lbe.scp
```

Files Installed in the VUE$LIBRARY Directory

```
sys$common:[vue$library.user]write$vue.com
sys$common:[vue$library.user]write$vue_profile.vue$dat
```

Files Installed in the SYS$COMMON:[SYSFONT.DECW.USER_75DPI] Directory

```
present_bullets8_75.decw$font
present_bullets10_75.decw$font
present_bullets12_75.decw$font
present_bullets14_75.decw$font
present_bullets18_75.decw$font
present_bullets24_75.decw$font
present_bullets36_75.decw$font
present_bullets48_75.decw$font
present_bullets72_75.decw$font
decbox14_75.decw$font
decbox18_75.decw$font
decbox24_75.decw$font
```

A.2 Files Installed on OpenVMS AXP Systems

decbox36_75.decw$font
decpic14_75.decw$font
decpic18_75.decw$font
decpic24_75.decw$font
decpic36_75.decw$font

Files Installed in the SYS$COMMON:[SYSFONT.DECW.USER_100DPI] Directory

dutch801_decmath_extension12_100.decw$font
dutch801_decmath_italic8_100.decw$font
dutch801_decmath_italic10_100.decw$font
dutch801_decmath_italic12_100.decw$font
dutch801_decmath_symbol8_100.decw$font
dutch801_decmath_symbol10_100.decw$font
dutch801_decmath_symbol12_100.decw$font
present_bullets8_100.decw$font
present_bullets10_100.decw$font
present_bullets12_100.decw$font
present_bullets14_100.decw$font
present_bullets18_100.decw$font
present_bullets24_100.decw$font
present_bullets36_100.decw$font
present_bullets48_100.decw$font
present_bullets72_100.decw$font
decbox14_100.decw$font
decbox18_100.decw$font
decbox24_100.decw$font
decbox36_100.decw$font
decpic14_100.decw$font
decpic18_100.decw$font
decpic24_100.decw$font
decpic36_100.decw$font

Files Installed in the SYS$PS_FONT_METRICS Directory

sys$common:[sysfont.ps_font_metrics.user]dutch801_italic_decmath_italic.afm
sys$common:[sysfont.ps_font_metrics.user]dutch801_italic_decmath_italic.ps
sys$common:[sysfont.ps_font_metrics.user]dutch801_roman_decmath_extension.ps
sys$common:[sysfont.ps_font_metrics.user]dutch801_roman_decmath_extension.afm
sys$common:[sysfont.ps_font_metrics.user]dutch801_roman_decmath_symbol.afm
sys$common:[sysfont.ps_font_metrics.user]dutch801_roman_decmath_symbol.ps
sys$common:[sysfont.ps_font_metrics.user]terminal_dectech.afm
sys$common:[sysfont.ps_font_metrics.user]terminal_dectech.ps
sys$common:[sysfont.ps_font_metrics.user]present_bullets.afm
sys$common:[sysfont.ps_font_metrics.user]present_bullets.ps
sys$common:[sysfont.ps_font_metrics.user]decwriteboxes.afm
sys$common:[sysfont.ps_font_metrics.user]decwriteboxes.ps
sys$common:[sysfont.ps_font_metrics.user]decwritepictures.afm
sys$common:[sysfont.ps_font_metrics.user]decwritepictures.ps

Files Installed in the SYS$SYSTEM Directory

decchart$motif.exe

A.2 Files Installed on OpenVMS AXP Systems

Files Installed in the CDA$LIBRARY Directory

ch_area100.chart_style
ch_areagrid.chart_style
ch_areasimple.chart_style
ch_area_col.chart_style
ch_bar100.chart_style
ch_barcluster.chart_style
ch_barclustergrid.chart_style
ch_barclustervalue.chart_style
ch_baroverlap.chart_style
ch_barstack.chart_style
ch_col100.chart_style
ch_colcluster.chart_style
ch_colclustergrid.chart_style
ch_colclustervalue.chart_style
ch_coloverlap.chart_style
ch_colstack.chart_style
ch_col_hilo.chart_style
ch_col_line.chart_style
ch_col_scat.chart_style
ch_hilo.chart_style
ch_hiloclose.chart_style
ch_hiloopcl.chart_style
ch_hiloopen.chart_style
ch_hilo_line.chart_style
ch_histo.chart_style
ch_histohgrid.chart_style
ch_histohvgrid.chart_style
ch_histovalue.chart_style
ch_line.chart_style
ch_linehgrid.chart_style
ch_linehvgrid.chart_style
ch_linelog.chart_style
ch_linemarkers.chart_style
ch_line_line.chart_style
ch_line_scat.chart_style
ch_pie.chart_style
ch_pieallexp.chart_style
ch_pieoneexp.chart_style
ch_pievalue.chart_style
ch_scatter.chart_style
ch_scatterdeplog.chart_style
ch_scatterhvgrid.chart_style
ch_scatterlines.chart_style
ch_scatterxylog.chart_style

Files Installed in the DECW$SYSTEM_DEFAULTS Directory

decchart$motif_uid.uid

A.2 Files Installed on OpenVMS AXP Systems

Files Installed in the VUE$LIBRARY Directory

decchart$vue.com
decchart$vue_profile.vue$dat

Files Installed in the SYS$HELP directory

decchart$motif.decw$book

Files Installed in the SYS$STARTUP Directory

chart$startup.com

Files Installed in the SYS$COMMON:[SYSTEST.CHART$IVP] Directory

chart$ident.com

Files Installed in the CHART$EXAMPLES Directory

chart$sample.chart
chart$sample.chart_style
chart$sample.table

Files Installed in the SYS$SYSTEM Directory

cda$convert.exe
ddif$view.exe

Files Installed in the SYS$LIBRARY Directory

cda$access.exe
ddif$viewshr.exe
cda$dtif_to_ddif.exe
ddif$read_text.exe
cda$write_analysis.exe
ddif$write_ps.exe
ddif$write_text.exe
cda$cda_.ada
cda$def.bas
cda$def.for
cda$def.h
cda$def.mar
cda$def.pas
cda$def.pli
cda$def.r32
cda$msg.bas
cda$msg.for
cda$msg.h
cda$msg.mar
cda$msg.pas
cda$msg.pli
cda$msg.r32
cda$typ.h
cda$ptp.h

```
ddif$ddif_.ada
ddif$def.bas
ddif$def.for
ddif$def.h
ddif$def.mar
ddif$def.pas
ddif$def.pli
ddif$def.r32
```

Files Installed in the CDA$LIBRARY Directory

```
defstyle.ddif
```

Files Installed in the DECW$SYSTEM_DEFAULTS Directory

```
ddif$view.uid
ddif$viewwgt.uid
```

Files Installed in the SYS$HELP Directory

```
ddif$view.decw$bookshelf
```

Files Installed in the SYS$MESSAGE Directory

```
cda$accessmsg.exe
ddif$viewmsg.exe
```

A.3 Files Installed on OpenVMS VAX Systems

This section lists the files that are installed during a DECwrite installation on an OpenVMS VAX system.

Files Installed in the SYS$SYSTEM Directory

```
decwrite.exe
write$fontutil.exe
write$equation.exe
```

Files Installed in the SYS$LIBRARY Directory

```
write$prolog.ps
write$prolog1.ps
write$dnhyp01.ram
write$duhyp01.ram
write$encd01e.dsk
write$encd01g.ram
write$fnhyp01.ram
write$grhyp01.ram
write$hyp01.ram
write$ithyp01.ram
write$nbhyp01.ram
write$pohyp01.ram
write$sphyp01.ram
write$swhyp01.ram
```

A.3 Files Installed on OpenVMS VAX Systems

```
write$ua2005l.dsk
write$ua2005l.ram
write$thesaurus.dsk
write$ail_shr.exe
decision$builder_shr.exe
xdps$dpsclientshr.exe
xdps$dpslibshr.exe
dtif$read_ascii_tabular.exe
dtif$read_ascii_field.exe
dtif$read_calcgrd.exe
dtif$read_dif.exe
ddif$read_dx.exe
dtif$read_wk1.exe
dtif$read_wk3.exe
ddif$read_wpl.exe
dtif$write_ascii_tabular.exe
ddif$write_dx.exe
dtif$write_wk1.exe
dtif$write_wk3.exe
ddif$write_wpl.exe
write$fonts.ini
```

Files Installed in the CDA$LIBRARY Directory

```
wr_dir.doc_style
wr_examp.doc_style
wr_genrl.doc_style
wr_lettr.doc_style
wr_man.doc_style
wr_man2.doc_style
wr_memo.doc_style
wr_milsp.doc_style
wr_news.doc_style
wr_price.doc_style
wr_priv1.doc_style
wr_priv2.doc_style
wr_priv3.doc_style
wr_rpt.doc_style
wr_slidl.doc_style
wr_slidp.doc_style
wr_slidt.doc_style
wr_smemo.doc_style
wr_techj.doc_style
wr_tmemo.doc_style
```

A.3 Files Installed on OpenVMS VAX Systems

```
wr_exmpb.doc_style
wr_genb.doc_style
wr_manb.doc_style
wr_milsb.doc_style
wr_rptb.doc_style
wr_sll2.doc_style
dx_guide.doc_style
dx_cour.doc_style
dx_times.doc_style
dx_helv.doc_style
```

Files Installed in the DECW$SYSTEM_DEFAULTS Directory

```
write$ui.uid
write$fontutil.uid
write$equation.uid
```

Files Installed in the SYS$HELP Directory

```
decwrite030.release_notes
decwrite030_ref.ps
write$help.decw$book
write$equation.decw$book
```

Files Installed in the SYS$MESSAGE Directory

```
dtif$read_ascii_tabular_messages.exe
dtif$read_ascii_field_messages.exe
dtif$read_calcgrd_messages.exe
dtif$read_dif_messages.exe
dtif$read_wk1_messages.exe
dtif$read_wk3_messages.exe
dtif$write_ascii_tabular_messages.exe
dtif$write_wk1_messages.exe
dtif$write_wk3_messages.exe
```

Files Installed in the SYS$STARTUP Directory

```
write$startup.com
```

Files Installed in the SYS$MANAGER Directory

```
decw$starti18n.com
```

Files Installed in the SYS$TEST Directory

```
write$ivp.com
lae$ivp.com
lbe$ivp.com
sys$common:[systest.decwrite]writeivp.doc
sys$common:[systest.decwrite]writeivp.chart
sys$common:[systest.decwrite]write$ident.com
```

A.3 Files Installed on OpenVMS VAX Systems

Files Installed in the WRITE$EXAMPLES Directory

```
tutorial.doc
tutor.chart
tutor.txt
logo.img
offices.doc
orgchart.doc
graphics.doc
ruler.doc
grid.eps
keyboard.doc
eps_art.doc
ds_320.eps
demsa.eps
draft.eps
ln03r.eps
mv3800.eps
lanserve.eps
sa600.eps
vs3100.eps
vax_6310.eps
vt340.eps
std_dev.tex
dx.macros
doc_cnv.ps
tab_cnv.ps
doc_cnv.decw$book
tab_cnv.decw$book
readme.txt
decwrite030_release_notes.decw$book
decwrite030_release_notes.decw$bookshelf
times_roman18.decw$font
times_roman18_100dpi.decw$font
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_extension12_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_italic10_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_italic12_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_italic8_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_symbol10_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_symbol12_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_symbol8_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_extension12_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_italic10_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_italic12_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_italic8_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_symbol10_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_symbol12_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]dutch801_decmath_symbol8_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets8_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets10_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets12_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets14_100.bdf
```

A.3 Files Installed on OpenVMS VAX Systems

sys$common:[syshlp.examples.decwrite.fonts]present_bullets18_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets24_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets36_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets48_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets72_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets8_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets10_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets12_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets14_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets18_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets24_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets36_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets48_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]present_bullets72_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]decbox14_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]decbox18_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]decbox24_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]decbox36_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]decpic14_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]decpic18_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]decpic24_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]decpic36_75.bdf
sys$common:[syshlp.examples.decwrite.fonts]decbox14_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]decbox18_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]decbox24_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]decbox36_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]decpic14_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]decpic18_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]decpic24_100.bdf
sys$common:[syshlp.examples.decwrite.fonts]decpic36_100.bdf

Files Installed in the LCI$LEXICONS Directory

lci$lexicons:am2878kh.dsk
lci$lexicons:am2878kh.ram
lci$lexicons:lae.scp
lci$lexicons:bs2878kh.dsk
lci$lexicons:bs2878kh.ram
lci$lexicons:lbe.scp

Files Installed in the VUE$LIBRARY Directory

sys$common:[vue$library.user]write$vue.com
sys$common:[vue$library.user]write$vue_profile.vue$dat

A.3 Files Installed on OpenVMS VAX Systems

Files Installed in the SYS$COMMON:[SYSFONT.DECW.USER_75DPI] Directory

present_bullets8_75.decw$font
present_bullets10_75.decw$font
present_bullets12_75.decw$font
present_bullets14_75.decw$font
present_bullets18_75.decw$font
present_bullets24_75.decw$font
present_bullets36_75.decw$font
present_bullets48_75.decw$font
present_bullets72_75.decw$font
decbox14_75.decw$font
decbox18_75.decw$font
decbox24_75.decw$font
decbox36_75.decw$font
decpic14_75.decw$font
decpic18_75.decw$font
decpic24_75.decw$font
decpic36_75.decw$font

Files Installed in the SYS$COMMON:[SYSFONT.DECW.USER_100DPI] Directory

dutch801_decmath_extension12_100.decw$font
dutch801_decmath_italic8_100.decw$font
dutch801_decmath_italic10_100.decw$font
dutch801_decmath_italic12_100.decw$font
dutch801_decmath_symbol8_100.decw$font
dutch801_decmath_symbol10_100.decw$font
dutch801_decmath_symbol12_100.decw$font
present_bullets8_100.decw$font
present_bullets10_100.decw$font
present_bullets12_100.decw$font
present_bullets14_100.decw$font
present_bullets18_100.decw$font
present_bullets24_100.decw$font
present_bullets36_100.decw$font
present_bullets48_100.decw$font
present_bullets72_100.decw$font
decbox14_100.decw$font
decbox18_100.decw$font
decbox24_100.decw$font
decbox36_100.decw$font
decpic14_100.decw$font
decpic18_100.decw$font
decpic24_100.decw$font
decpic36_100.decw$font

A.3 Files Installed on OpenVMS VAX Systems

Files Installed in the SYS$PS_FONT_METRICS Directory

sys$common:[sysfont.ps_font_metrics.user]dutch801_italic_decmath_italic.afm
sys$common:[sysfont.ps_font_metrics.user]dutch801_italic_decmath_italic.ps
sys$common:[sysfont.ps_font_metrics.user]dutch801_roman_decmath_extension.ps
sys$common:[sysfont.ps_font_metrics.user]dutch801_roman_decmath_extension.afm
sys$common:[sysfont.ps_font_metrics.user]dutch801_roman_decmath_symbol.afm
sys$common:[sysfont.ps_font_metrics.user]dutch801_roman_decmath_symbol.ps
sys$common:[sysfont.ps_font_metrics.user]terminal_dectech.afm
sys$common:[sysfont.ps_font_metrics.user]terminal_dectech.ps
sys$common:[sysfont.ps_font_metrics.user]present_bullets.afm
sys$common:[sysfont.ps_font_metrics.user]present_bullets.ps
sys$common:[sysfont.ps_font_metrics.user]decwriteboxes.afm
sys$common:[sysfont.ps_font_metrics.user]decwriteboxes.ps
sys$common:[sysfont.ps_font_metrics.user]decwritepictures.afm
sys$common:[sysfont.ps_font_metrics.user]decwritepictures.ps

DECchart Files Installed in the SYS$SYSTEM Directory

decchart$motif.exe

DECchart Files Installed in the CDA$LIBRARY Directory

ch_area100.chart_style
ch_areagrid.chart_style
ch_areasimple.chart_style
ch_area_col.chart_style
ch_bar100.chart_style
ch_barcluster.chart_style

A.3 Files Installed on OpenVMS VAX Systems

```
ch_barclustergrid.chart_style
ch_barclustervalue.chart_style
ch_baroverlap.chart_style
ch_barstack.chart_style
ch_col100.chart_style
ch_colcluster.chart_style
ch_colclustergrid.chart_style
ch_colclustervalue.chart_style
ch_coloverlap.chart_style
ch_colstack.chart_style
ch_col_hilo.chart_style
ch_col_line.chart_style
ch_col_scat.chart_style
ch_hilo.chart_style
ch_hiloclose.chart_style
ch_hiloopcl.chart_style
ch_hiloopen.chart_style
ch_hilo_line.chart_style
ch_histo.chart_style
ch_histohgrid.chart_style
ch_histohvgrid.chart_style
ch_histovalue.chart_style
ch_line.chart_style
ch_linehgrid.chart_style
ch_linehvgrid.chart_style
ch_linelog.chart_style
ch_linemarkers.chart_style
ch_line_line.chart_style
ch_line_scat.chart_style
ch_pie.chart_style
ch_pieallexp.chart_style
ch_pieoneexp.chart_style
ch_pievalue.chart_style
ch_scatter.chart_style
ch_scatterdeplog.chart_style
ch_scatterhvgrid.chart_style
ch_scatterlines.chart_style
ch_scatterxylog.chart_style
```

DECchart Files Installed in the DECW$SYSTEM_DEFAULTS Directory

```
decchart$motif_uid.uid
```

Files Installed in the VUE$LIBRARY Directory

```
decchart$vue.com
decchart$vue_profile.vue$dat
```

DECchart Files Installed in the SYS$HELP directory

```
decchart$motif.decw$book
```

DECchart Files Installed in the SYS$STARTUP Directory

```
chart$startup.com
```

A.3 Files Installed on OpenVMS VAX Systems

DECchart Files Installed in the SYS$COMMON:[SYSTEST.CHART$IVP] Directory

chart$ident.com

DECchart Files Installed in the CHART$EXAMPLES Directory

chart$sample.chart
chart$sample.chart_style
chart$sample.table

CDA Base System Files Installed in the SYS$SYSTEM Directory

cda$convert.exe
ddif$view.exe

CDA Base System Files Installed in the SYS$LIBRARY Directory

cda$access.exe
ddif$viewshr.exe
cda$dtif_to_ddif.exe
ddif$read_text.exe
cda$write_analysis.exe
ddif$write_ps.exe
ddif$write_text.exe
cda$cda_.ada
cda$def.bas
cda$def.for
cda$def.h
cda$def.mar
cda$def.pas
cda$def.pli
cda$def.r32
cda$msg.bas
cda$msg.for
cda$msg.h
cda$msg.mar
cda$msg.pas
cda$msg.pli
cda$msg.r32
cda$typ.h
cda$ptp.h
ddif$ddif_.ada
ddif$def.bas
ddif$def.for
ddif$def.h
ddif$def.mar
ddif$def.pas
ddif$def.pli
ddif$def.r32

CDA Base System Files Installed in the CDA$LIBRARY Directory

defstyle.ddif

A.3 Files Installed on OpenVMS VAX Systems

CDA Base System Files Installed in the DECW$SYSTEM_DEFAULTS Directory

```
ddif$view.uid
ddif$viewwgt.uid
```

CDA Base System Files Installed in the SYS$HELP Directory

```
ddif$view.decw$bookshelf
```

CDA Base System Files Installed in the SYS$MESSAGE Directory

```
cda$accessmsg.exe
ddif$viewmsg.exe
cnv_msg.dat
```

Sample Converter Option Files in the SYS$EXAMPLES Directory

```
example_ascii_tabular.cda$options
example_read_ascii_field.cda$options
example_read_ascii_tabular.cda$options
example_read_calcgrd.cda$options
example_read_dif.cda$options
example_read_dx.cda$options
example_read_wk1.cda$options
example_read_wk3.cda$options
example_read_wpl.cda$options
example_write_ascii_tabular.cda$options
example_write_dx.cda$options
example_write_wk1.cda$options
example_write_wk3.cda$options
example_write_wpl.cda$options
```

B

Sample DECwrite Installation

This appendix contains a printout of a typical DECwrite installation procedure. The example in this appendix shows a full installation of the British English version of DECwrite on an OpenVMS AXP system.

To perform a successful installation, you must:

1. Prepare your system by completing the procedure in Chapter 1.
2. Install DECwrite by completing the installation procedure described in Chapter 2.
3. Perform any needed postinstallation procedures described in Chapter 3.

B.1 Full Installation on an OpenVMS AXP System

This sample installation printout shows the user responses and system messages on an OpenVMS AXP Version 1.5 system where DECwindows Motif for VMS Version 1.1 and all the appropriate licenses have been installed.

```
$ @sys$update:vmsinstal

 OpenVMS AXP Software Product Installation Procedure V1.5


It is 28-JAN-1994 at 10:20.

Enter a question mark (?) at any time for help.
* Are you satisfied with the backup of your system disk [YES]? YES
* Where will the distribution volumes be mounted: AUSTEN$DKA400

Enter the products to be processed from the first distribution volume set.
* Products: DECWRITE030
* Enter installation options you wish to use (none):
The following products will be processed:
  DECWRITE V3.0

 Beginning installation of DECWRITE V3.0 at 10:20

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

                DECwrite V3.0 Installation Procedure
```

B.1 Full Installation on an OpenVMS AXP System

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

     You can install the DECwrite kit completely or just the
     additional screen fonts used by DECwrite and the
     DECwrite Equation Editor.

     If you are installing this kit for use on a workstation, or on a
     VMScluster that includes workstations, then you should install
     the entire kit. This requires 62000 blocks.

     If you are installing this kit on a workstation that will only run
     DECwrite from a remote system, then only the screen font files are
     needed. This requires 1268 blocks.

* Do you want to install the entire kit [YES]? Y

     This kit contains the user interface for both DECwrite/American
     English and DECwrite/British English. You should install the
     appropriate user interface  according the type of DECwrite
     license you have purchased.

     Choose one of the following:

         1) DECwrite/American English user interface
         2) DECwrite/British English user interface
```

B.1 Full Installation on an OpenVMS AXP System

```
* Enter choice [1]: 2
     Installing DECwrite/British English...
     Installing DECwrite/Motif...

     This kit contains an optional clipart library composed of Encapsulated
     PostScript pictures, DDIF pictures, and DDIF images. Its total
     size is 10240 blocks.

* Do you want to install the clip art library [YES]? Y

Specify a device and directory on which to install the clip art library

* Device and directory [sys$sysdevice:[clipart]]:
  You have chosen the device and directory SYS$SYSDEVICE:[CLIPART]

* Is this correct [YES]? Y

    ************************************************************

    Note: This installation will replace the DECwrite supplied
    style files in CDA$LIBRARY. If you have made modifications to
    these files, make backup copies before continuing. For
    example:

     $ backup/log cda$library:wr_*.doc_style style_files.bck/sav

    ************************************************************

* Do you want to continue [YES]? Y

    This kit requires DECchart V1.6 or later.

    ************************************************************

    DECchart V1.6 will be installed since it does
    not exist on your system.

    ************************************************************


     This kit requires the DECwrite Equation Editor V3.0-2 or later.

     ************************************************************

     The DECwrite Equation Editor V3.0-2 will be installed
     since it does not exist on your system.

     ************************************************************


%VMSINSTAL-I-DIREXISTS, The spell check lexicon directory already exists:
-VMSINSTAL-I-DIREXISTS,              SYS$SYSDEVICE:[LCI.LEXICONS]
-VMSINSTAL-I-DIREXISTS, The British-English lexicon will be installed there.

     Checking/registering INTL-LEXICON-BRITISH-ENG  Product Authorization Key...

%LICENSE-I-LOADED, DEC INTL-LEXICON-BRITISH-ENG was successfully loaded with 0 units
* Do you want to run the IVP after the installation [YES]? Y

%VMSINSTAL-W-NODISPLAY, Workstation display not defined
```

B.1 Full Installation on an OpenVMS AXP System

```
Enter the node name of the workstation on which to display the IVP
or press Return to continue and not run the IVP

* Node name: AUSTEN

     The language in the Language dialog box on the Session
     Manager's Customize/Options menu must be set to British English
     in order to run the IVP. Ensure the language is set accordingly
     before continuing.

* Press Return when ready to continue:

* Do you want to purge files replaced by this installation [YES]? Y

    To complete the installation on a standalone DEC 3000 Model 500
    will take approximately:

        50 minutes to install
        10 minutes to run the IVP

    All required questions have been asked.
    You can terminate the installation procedure at this time.

* Do you want to continue the installation [YES]? YES
%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 I ...
%VMSINSTAL-I-RESTORE, Restoring product save set K ...
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
VMI$ROOT:[SYSHLP.EXAMPLES.DECWRITE].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
VMI$ROOT:[SYSHLP.EXAMPLES.EN_GB.DECWRITE].

     The on-line demonstration document, tutorial.doc and the
     documents used in the Getting Started exercises are in:

          VMI$ROOT:[SYSHLP.EXAMPLES.EN_GB.DECWRITE]
```

B.1 Full Installation on an OpenVMS AXP System

```
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
VMI$ROOT:[SYSHLP.EXAMPLES.DECWRITE.FONTS].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  VMI$ROOT:[SYSTEST.DECWRITE].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  AUSTEN$DKA400:[CLIPART].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[EPS].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[ARROWS].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[BUILDING].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[COMMUNIC].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[ENERGY].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[SPORTS].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[FIGURES].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[FINANCE].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[GOVERNMT].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[SCIENCE].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_BLDG].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_BORDR].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_BUSNS].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_COMM].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_DOM].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_FIN].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_FLAGS].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_MISC].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_NATUR].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_PEOPL].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_SCI].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_SPORT].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_SYMBL].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_TOONS].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_TRANS].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_USMAP].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  WRITE$CLIPART:[PR_WDMAP].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
VMI$ROOT:[SYSHLP.EXAMPLES.DECCHART].

     The following commands must be added to the system startup
     command file SYS$MANAGER:SYSTARTUP_VMS.COM for all nodes that will
     be running DECwrite:

          @sys$startup:write$startup  EN_GB
          @sys$manager:decw$starti18n EN_GB
          @sys$startup:lci$startup.com     ! British-English lexicon

     If you are installing this kit on a workstation, you should
     restart DECwindows after the installation has completed:

          @sys$startup:decw$startup restart


%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target directories...
%VMSINSTAL-I-FONTS, Updating font directories
Write$startup: Defining cda$library logical for EN_GB
%VMSINSTAL-I-RUNIVP, Executing installation verification procedure(s)
```

B.1 Full Installation on an OpenVMS AXP System

```
Executing IVP for: DECwrite V3.0

    The IVP edits a sample document. If the document looks the same as
    the illustration in the installation guide, then the installation
    has been successful. After the document window appears, click the
    mouse in the window to assign input focus, and type Alt/Q (hold
    down the Compose Character or "Alt" key and press Q) to exit
    DECwrite and complete the DECwrite portion of the IVP.

    Note that when executing this IVP for a particular DECwrite language
    variant, make sure to set the appropriate language in the Language
    dialog box on the Session Manager's Customization menu. See the
    installation guide for details.

    Set your language now before continuing with the IVP.

     Press return when ready:

     Starting DECwrite....

        ************************************

        DECwrite V3.0

        IVP COMPLETED SUCCESSFULLY

        ************************************

IVP completed for: DECwrite V3.0


Executing IVP for:  International Lexicon/British English for VMS V1.0

 ************************************************

 International Lexicon/British English for VMS V1.0

 IVP COMPLETED SUCCESSFULLY

 ************************************************

IVP completed for:  International Lexicon/British English for VMS V1.0
 Installation of DECWRITE V3.0 completed at 11:09

    Adding history entry in VMI$ROOT:[SYSUPD]VMSINSTAL.HISTORY

    Creating installation data file: VMI$ROOT:[SYSUPD]DECWRITE030.VMI_DATA

Enter the products to be processed from the next distribution volume set.
* Products:
 VMSINSTAL procedure done at 11:12
$ log
  SYSTEM       logged out at 28-JAN-1994 11:12:49.63
```

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