Compaq DECforms

Installation Guide for OpenVMS Systems

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Compaq DECforms (formerly DIGITAL DECforms) is a software product for applications, services, and tools that require a structured, forms-based, or menu-based user interface. DECforms is the first commercial implementation of an ANSI/ISO standard for forms-based interfaces, the CODASYL Form Interface Management System (FIMS).

Revision/Update Information:	This is a revised manual.
Operating System:	Compaq OpenVMS Alpha Version 6.2 or higher Compaq OpenVMS VAX Version 6.2 or higher
Software Version:	Compaq DECforms Version 3.1

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This document is available on CD-ROM.

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Preface

This manual describes how to install *Compaq DECforms* Version 3.1 and how to verify the installation.

This manual refers to some Compaq products by their abbreviated names:

- Compaq DECforms software is referred to as DECforms.
- DEC Language-Sensitive Editor software is referred to as DEC LSE.

Who Should Use This Guide

This manual is for those who install and maintain DECforms software. You should read this manual before installing DECforms.

Structure of This Guide

This manual has three chapters and three appendixes.

Chapter 1	Describes the preparations and requirements for installing DECforms.
Chapter 2	Describes the installation procedure.
Chapter 3	Describes the tasks you should do after installing DECforms.
Appendix A	Reproduces typical installation sessions on VAX systems.
Appendix B	Reproduces typical installation sessions on Alpha systems.
Appendix C	Lists the files that are installed or modified and the logical names that are defined or modified during the installation procedure.

For More Information

See the online help, the online release notes, and the following documents for more information about DECforms:

- *DIGITAL DECforms Guide to Commands and Utilities*—Describes the DECforms FORMS commands and utilities.
- *DIGITAL DECforms IFDL Reference Manual*—Describes the syntax of the DECforms Independent Form Description Language.
- *DIGITAL DECforms Style Guide for Character-Cell Devices*—Describes how to develop Motif style user interfaces for DECforms applications for character-cell terminals.
- *DIGITAL DECforms Programmer's Reference Manual*—Describes how DECforms software operates at run time and how to call the DECforms requests from an application program.
- *DIGITAL DECforms Guide to Developing an Application*—Part I explains for the beginning DECforms programmer how to create a DECforms application, including both the form and the program. Part II contains additional guidelines and examples for more experienced DECforms programmers.
- *Compaq DECforms Guide to the Web Connector*—Describes how to use the DECforms Web Connector to use DECforms applications on the World Wide Web.
- *DIGITAL DECforms Guide to Demonstration Forms and Applications*—Describes how to use various demonstration forms and applications. This guide is contained in online files named `forms$demo_guide.txt` and `forms$demo_guide.ps` in the FORMS$EXAMPLES directory on *OpenVMS* systems. If you cannot find this document, ask your system manager to install it in the appropriate directory.

  For information about displaying these forms, see the *DIGITAL DECforms Guide to Developing an Application*.
- *DIGITAL DECforms Guide to Converting FMS Applications*—Describes how to convert a VAX FMS or DEC FMS application to a DECforms application.

For further information on other topics covered in this guide, see the following:

- DEC LSE documentation for information on how to use DEC LSE
- Oracle CDD documentation set for information on CDD definitions
- *ISO IS 11730:1994* for information on the standard of which DECforms is an implementation (see the Acknowledgment section)

For additional information on installing DECforms, see the OpenVMS operating system documentation for these topics:

- VMSINSTAL procedure
- Install Utility (INSTALL)
- System management and operations

Send Us Your Comments

We welcome your comments on this or any other DECforms manual. If you have suggestions for improving a particular section or find any errors, please indicate the chapter, section, and page number (if available). We also welcome more general comments. Your input is valuable in improving future releases of our documentation.

You can send comments to us at the following Internet address:

```
decforms@compaq.com
```

If you have a customer support contract and have comments or questions about DECforms software, contact the Compaq North American Customer Support Center (CSC), preferably using electronic means such as DSNlink. In the United States, customers can call the CSC at 1-800-354-9000. In other countries, look at http://www.alf.dec.com/unix/other_csc.html to find out which CSC to contact.

Conventions

Table 1 lists the conventions used in this guide.

Table 1 Conventions Used in the Guide

Symbol or Term	Meaning
Ctrl/X	In procedures, a sequence such as Ctrl/X indicates that you must hold down the key labeled Ctrl while you press another key.
KPn	Key names that begin with KP indicate keys on the numeric keypad on the right side of the terminal keyboard. For example, KP4 and KP. are keys on the numeric keypad.
PF1-x	A sequence such as PF1-x indicates that you must first press and release the key labeled PF1, and then press and release another key.
. . .	In examples, horizontal ellipsis points indicate one of the following possibilities: • Additional optional arguments in a statement have been omitted. • The preceding item or items can be repeated one or more times. • Additional parameters, values, or other information can be entered.
. . .	Vertical ellipsis points indicate the omission of items from a code example or command format; the items are omitted because they are not important to the topic being discussed.
( )	In format descriptions, parentheses indicate that if you choose more than one option, you must enclose the choices in parentheses.
[ ]	In format descriptions, brackets indicate that whatever is enclosed is optional; you can select none, one, or all of the choices.
{ }	In format descriptions, braces surround a required choice of options; you must choose one of the options listed.
$ **user input**	User input is shown in **bold**.
Bold	DECforms terms are shown in bold where introduced or explained.

(continued on next page)

Table 1 (Cont.) Conventions Used in the Guide

Symbol or Term	Meaning
$	The dollar sign is used to indicate the user prompt on OpenVMS systems.

Unless otherwise specified, you terminate commands by pressing the Return key.

Acknowledgment

DECforms is the Compaq implementation of a Form Interface Management System (FIMS) ANSI/ISO standard prepared by the CODASYL Form Interface Management System Committee and ISO/IEC JTC1/SC22 Working Group 18. The FIMS standard is documented in *ISO IS 11730:1994* and can be purchased from the International Organization for Standardization or American National Standards Institute.

1
Preparing to Install DECforms Software

This chapter discusses the preparations and requirements for installing *Compaq DECforms* software.

Your bill of materials (BOM) and indented bills report (BIL) specify the number of media in your kit and the contents of your kit. Make sure you compare your kit with this information. If your kit is damaged or incomplete, contact your Compaq representative.

DECforms provides online release notes. You can read or print the release notes before you begin the DECforms installation.

Recommendation

Compaq Computer Corporation strongly recommends that you read the release notes before you proceed with the installation. For more information about the release notes that ship with your kit, see Section 2.1.

1.1 Required Operating System Components

To install DECforms, you must have certain operating system components. The components you need depend on whether you are installing the DECforms full development kit or the run-time kit.

The DECforms full development kit contains the DECforms run-time system and development utilities. To install this kit, you must have installed the following OpenVMS classes:

- OpenVMS required save set
- Programming support (for STARLET.OLB and IMAGELIB.OLB)
- Utilities (for HELPLIB.OLB)

The DECforms run-time kit contains only the DECforms run-time system. To install the DECforms run-time kit, you must have installed the OpenVMS required save set class.

1.2 Required and Optional Software

This section discusses the software that must already be installed on your system before installing DECforms. The section also includes information about optional software that you can use with DECforms.

To install DECforms, you must have installed on your system:

- A valid OpenVMS operating system configuration, OpenVMS Version 6.2 or higher
- Oracle CDD/Repository Version 5.3 or higher, if you intend to store definitions in Oracle CDD/Repository software
- DEC LSE Version 2.3 or higher if you intend to use the DEC Language-Sensitive Editor (DEC LSE) templates for the DECforms Independent Form Description Language (IFDL)
- DECwindows Motif Version 1.1 or higher if you intend to use DECwindows Motif support in DECforms

If you are going to use the *Compaq DECforms Web Connector* on your OpenVMS system, you must also have installed on your system:

- Compaq TCP/IP Services for OpenVMS, Version 4.1 plus ECO 8 or Version 4.2 or higher
- RPC run-time component from Compaq Distributed Computing Environment (DCE) for OpenVMS Version 1.4 or higher

For a complete list of the products that are compatible with this version of DECforms, see the Software Product Description.

Note

DECforms Version 3.1 software can be used with Compaq ACMS Version 4.1 or higher.

1.3 Required Hardware

DECforms supports Compaq VT100-, VT200-, VT300-, VT400-, VT500-series terminals, DECwindows Motif VAX workstations, and PCs that use the Windows NT operating system.

1.4 License Registration

You must register the DECforms software license with the OpenVMS License Management Facility (LMF). The LMF is available with Version 5.0 of the OpenVMS operating system.

The Product Authorization Key (PAK) that is shipped with DECforms contains the license registration information you need. The PAK is a paper certificate that contains information about the license you have purchased to run a particular piece of software.

During the installation, you are asked whether you have registered the DECforms license and loaded the appropriate authorization keys. It is therefore best to register your DECforms license *before* you do the installation.

If you have not registered the DECforms license and loaded the appropriate authorization keys, you can complete the installation; however, you cannot run either the DECforms software or its Installation Verification Procedure (IVP). Once you register the license and load an authorization key, you can run the IVP and use DECforms.

To register a license under Version 5.5 or higher of the OpenVMS operating system, log in to the system manager's account, SYSTEM. You then can register a license in one of the following ways:

- Run the SYS$UPDATE:VMSLICENSE.COM procedure. When the procedure prompts you for information, enter data from your PAK.
- Enter the LICENSE REGISTER command with the appropriate qualifiers that correspond to information on the PAK.

If you are installing DECforms on an OpenVMS Cluster system, you must register your license on each licensed node in the OpenVMS Cluster system.

For complete information on using LMF, see the section in the OpenVMS documentation set on the License Management Facility.

1.5 Installation Requirements

The following sections discuss various requirements for installing DECforms.

1.5.1 Time

Installing DECforms and running the IVP requires approximately 5 to 35 minutes, depending on your system configuration and the distribution media you are using.

1.5.2 Privileges

To install DECforms, you must be logged into an account that has SETPRV or the following privileges:

- CMKRNL
- WORLD
- SYSPRV

VMSINSTAL turns off BYPASS privilege at the start of the installation.

1.5.3 Disk Space

Installing DECforms requires a certain amount of free storage space before and after the installation, as shown in Table 1–1.

Table 1–1 Disk Space Requirements

DECforms Kit	Blocks During Installation	Blocks After Installation
VAX Run-Time Kit	3,000	2,500
VAX Full Development Kit	33,500	32,500 (with sample and demo applications) 18,000 (without sample and demo applications)
Alpha Run-Time Kit	5,300	5000
Alpha Full Development Kit	41,000	40,000 (with sample and demo applications) 21,000 (without sample and demo applications)

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

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

1.5.4 System Parameters

Installing DECforms requires certain system parameter settings, as shown in Table 1–2.

Table 1–2 Minimum Required System Parameter Values

System	GBLSECTIONS	GBLPAGES
VAX Run-Time	16	1615
VAX Full Development	45	5649
Alpha Run-Time	13	3288
Alpha Full Development	35	11934

The numbers shown in Table 1–2 represent the required number of unused global pages and global sections on your system for the DECforms installation to process. If your system has less than the required number, you must increase these values to the amount indicated.

To find the number of unused global pages and global sections, use the WRITE command with the F$GETSYI lexical function, as shown in the following example:

```
$ WRITE SYS$OUTPUT F$GETSYI("FREE_GBLPAGES")
3420
$ WRITE SYS$OUTPUT F$GETSYI("FREE_GBLSECTS")
24
```

If the value of free global pages or global sections is *less* than the value in Table 1–2, you must increase the system parameter setting.

Changing System Parameters

Use the AUTOGEN command procedure to change system parameters. AUTOGEN automatically adjusts values for parameters that are associated with the values that you reset manually.

To change system parameters with AUTOGEN, use the following procedure:

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

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

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

   WSMAX = 1024

To modify incremental parameters such as GBLPAGES and GBLSECTIONS, use ADD_. For example, the following line increases the global page setting by 2000:

ADD_GBLPAGES = 2000

When you set the page file quota, do not use a value that exceeds the amount of page file space available on the system.

2. Execute the AUTOGEN procedure to recalculate your system parameters. After you have made all your changes, exit the editor and then enter the following command at the DCL prompt:

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

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

AUTOGEN automatically adjusts some of the SYSGEN parameters based on the consumption of resources since the last restart. If you do not want to take advantage of this automatic adjustment, include the NOFEEDBACK qualifier on the AUTOGEN command line.

For more information about using AUTOGEN, see the OpenVMS System Management Subkit.

1.5.5 VMSINSTAL Requirements

When you run VMSINSTAL, it checks whether:

- You are logged in to a privileged account.
- You have adequate quotas for installation.
- DECnet is up and running.
- Any users are logged in to the system.

If VMSINSTAL detects any problems during the installation, it notifies you and asks whether you want to continue the installation. In some instances, you can enter YES to continue. To stop the installation and correct the situation, enter NO or press Return. Correct the problem and restart the installation.

For more information about VMSINSTAL, see the *Compaq OpenVMS System Management Utilities Reference Manual*.

1.5.6 Backing Up Your System Disk

At the beginning of the installation, VMSINSTAL asks whether you have backed up your system disk. Compaq recommends that you back up your system disk before installing any software.

Use the backup procedures that have been established at your site. For details on backing up your disk, see the section on the Backup Utility in the OpenVMS documentation set.

2
Installing DECforms Software

This chapter describes how to install Compaq DECforms software. Section 2.5 contains a step-by-step description of the installation procedure.

2.1 Accessing the Online Release Notes

You should review the Release Notes that DECforms provides; they might contain information about changes in the installation procedures. If you specify OPTIONS N when you run VMSINSTAL, the installation procedure asks you whether you want to display or print the release notes. Compaq recommends that you print the release notes.

After you install DECforms, you can find the OpenVMS Alpha release notes located in SYS$HELP:FORMSA031.RELEASE_NOTES.

The release notes for OpenVMS VAX are located in SYS$HELP:FORMS031.RELEASE_NOTES.

2.2 Determining the Files and Logical Names Added to the System

The DECforms installation procedure adds a number of files to your system. It also modifies some files and defines some logical names. Appendix C lists the changes that the DECforms installation procedure makes to your system.

2.3 Running the Installation Verification Procedure

The IVP for DECforms verifies the installation. DECforms provides two IVPs, one for the full development kit and one for the run-time kit.

When you are installing the DECforms kit, the installation procedure asks whether you want to run the IVP as part of the installation. If you respond YES, VMSINSTAL runs the appropriate IVP. You should run the IVP to verify that DECforms is installed correctly.

Should you need to run the IVP at any time after installation, enter the following command on a VT100-, VT200-, VT300-, VT400-, or VT500-series terminal or on a corresponding workstation terminal emulator:

Run-Time Kit IVP

```
$ @SYS$TEST:FORMS$RT_IVP.COM
```

Full Development Kit IVP

```
$ @SYS$TEST:FORMS$IVP.COM
```

2.4 Aborting the Installation

To abort the installation procedure at any time, press Ctrl/Y. The installation procedure deletes all files that it has created and exits. You can start the installation again.

2.5 Running the Installation Procedure

The DECforms installation procedure consists of a series of questions and informational messages. The following sections explain how to run the VMSINSTAL procedure and answer the installation questions. These sections also explain the informational messages displayed by the procedure.

2.5.1 Running VMSINSTAL

To start the installation, run the VMSINSTAL command procedure from a privileged account, such as the SYSTEM account. VMSINSTAL is in the SYS$UPDATE directory.

To set default to the SYS$UPDATE directory, enter the following command:

```
$ SET DEFAULT SYS$UPDATE
```

To run VMSINSTAL, enter a command with the following syntax:

@VMSINSTAL [product-name device-name options-list]

If you omit the parameters from the command line, VMSINSTAL asks you for this information later.

The following list defines the elements of the VMSINSTAL procedure.

product-name
The installation name for the product. For the DECforms full development kit running on Alpha, use the installation name FORMSA031. For the DECforms full development kit running on VAX, use the installation name FORMS031.

For the DECforms run-time kit running on Alpha, use the installation name FORMSRTA031. For the DECforms run-time kit running on VAX, use the installation name FORMSRT031.

device-name

The name of the device on which you plan to mount the media or the directory where you copied the savesets. For example, MTA0: is the device name for a tape drive; DKA0:[MYDIRECTORY] the name for a disk drive. You do not need to use the console drive for this installation. If you do use the console drive, once the installation is complete, you should replace any media you removed.

options-list

The word OPTIONS followed by one or more of the available options designators, including the following:

- Display or print release notes (N)

  Indicates you want to see the installation question on release notes. If you do not include the OPTIONS N parameter, VMSINSTAL *does not* ask you about the release notes. You should review the release notes before proceeding with the installation in case they contain additional information about the installation.

  If you are restarting the installation and have already reviewed the release notes, you do not need to specify OPTIONS N.

- Alternate root option (R)

  Lets you install the product to a system root other than that of the running system.

To specify more than one option, separate the options with commas (OPTIONS N,R).

VMSINSTAL has several other options; for more information, see the *Compaq OpenVMS System Management Utilities Reference Manual* section on software installation.

The following example shows the command that runs VMSINSTAL to install DECforms from tape drive MTA0: and the system response. This example uses the OPTIONS N parameter to print or display release notes.

```
$ @VMSINSTAL FORMS031 MTA0: OPTIONS N

      VAX/VMS Software Product Installation Procedure V6.2


It is 15-OCT-1999 at 15:46.
Enter a question mark (?) at any time for help.
```

2.5.2 Answering Installation Questions

This section discusses the questions that appear during the installation. Except where noted, the questions are the same for both the full development kit and the run-time kit options. For sample installation procedures, see Appendix A.

An asterisk (*) marks the beginning of each question. Some questions show the default response in brackets, for example [YES]. To choose the default response, press Return.

1. **Display system status.**

```
%VMSINSTAL-W-ACTIVE, The following processes are still active:
   .
   .
   .
* Do you want to continue anyway [NO]?
```

VMSINSTAL displays a list of active processes. The procedure asks whether you want to continue the installation.

NO is the default response to the question. To stop the installation, press Return. Once all active processes are stopped, restart the installation procedure.

2. **Confirm system backup.**

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

Always back up your system disk before doing an installation. VMSINSTAL asks whether you are satisfied with your system backup. If you are satisfied with the backup of your system disk, press Return. Otherwise, enter NO to stop the installation. After you back up your system disk, you can restart the installation.

3. **Mount the media.**

```
Please mount the first volume of the set on MTA0:.
* Are you ready? YES
%MOUNT-I-MOUNTED, FORMS MOUNTED ON _$$MTA0:
The following products will be processed:
  FORMS V3.1

    Beginning installation of FORMS V3.1 at 15:46

%VMSINSTAL-I-RESTORE, Restoring product saveset A...
```

Mount the first distribution volume on the device that you specified when you ran VMSIN STAL. If you are installing from a directory on a disk, you will be asked the following:

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

Then VMSINSTAL asks whether you are ready to continue the installation.

If you respond YES to indicate that you are ready, VMSINSTAL displays a message that the media containing DECforms has been mounted on the specified device and that the installation has begun.

If you entered the wrong device name when you ran VMSINSTAL and need to restart the installation, enter NO in response to the ''Are you ready?'' question. To stop the installation for other reasons, press Ctrl/Y.

4. **Select a Release Notes option.**

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

Additional Release Notes Options:

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

* Select option [2]:
```

If you specified OPTIONS N when you ran VMSINSTAL, you have four options for reviewing the release notes.

Option 1 displays the release notes immediately on the console terminal. To terminate the display at any time, press Ctrl/C.

Option 2 prompts you for the name of the print queue that you want to use:

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

Press Return to print the release notes on SYS$PRINT or enter a queue name and press Return. Option 2 is the default.

Option 3 both displays and prints the release notes.

Option 4 lets you select none of the above. However, Compaq does not recommend this.

5. **Continue the installation.**

```
* Do you want to continue the installation [N]?:  Y
%VMSINSTAL-I-RELMOVED, Product's Release Notes have been moved to SYS$HELP.
```

The installation procedure asks whether you want to continue the installation. To continue, enter YES. Otherwise, press Return. In either case, the release notes are copied to the file SYS$HELP:FORMS031.RELEASE_NOTES on VAX systems, or to the SYS$HELP:FORMSA031.RELEASE_NOTES file on Alpha systems. The software version number is represented in this file name by the *nnn* designation (031 for Version 3.1).

Note

The name of the release notes file installed by VMSINSTAL consists of the current product name and version number. Do not delete previous versions of DECforms Release Notes.

6. **Install the main kit.**

```
* Do you wish to install the main kit (16000 blocks) [YES]?
```

If you are installing the full development kit, the procedure asks whether you want to install the main kit. (The procedure omits this question if you are installing the run-time kit.) The main kit contains all DECforms software except the sample and demo application programs and support for DEC LSE.

7. **Respond to license registration queries.**

```
Product:      FORMS
Producer:     DEC
Version:      3.1
Release Date: 06-DEC-1999

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

The installation procedure displays license information about your product and asks whether you have registered the license for DECforms. If you have registered the license for DECforms, answer YES. If you have not registered the license, you must answer NO.

If you answer NO, the installation continues; however, if you did not register your DECforms license before you started the installation procedure, you cannot run the IVP during the installation. You should run the IVP after you install DECforms and register and load its PAK.

Section 1.4 describes registering your DECforms license and Section 2.3 describes verifying the installation of DECforms.

8. **Choose an Installation Verification Procedure (IVP) option.**

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

The installation procedure asks whether you want to run the IVP. The IVP for DECforms verifies a successful installation. Compaq recommends that you run the IVP.

9. **Install optional DECforms software.**

```
* Do you wish to install Sample Application Programs (3000 blocks) [YES]?

* Do you wish to install the demonstration package (12000 blocks) [YES]?

* Do you wish to install LSEDIT support (250 blocks) [YES]?

* Do you wish to install modifiable message file procedures (600 blocks)
   [YES]?
* Do you wish to register DECforms for Oracle TRACE support (50 blocks) [YES]?

* Do you wish to install DECforms Web Connector support [YES]?
```

These six installation questions ask whether you want to install the following (if you are installing the run-time kit, the procedure omits all but the Oracle TRACE and Web Connector support queries):

- Sample application programs that demonstrate using DECforms.
- Demonstration programs that also demonstrate using DECforms.
- LSEDIT support that includes DEC LSE templates for the DECforms Independent Form Description Language (IFDL).

  For systems running Version 2.3 of DEC LSE software, the following messages may appear when you install DEC LSE support:

  ```
  %TPU-W-NOTPUVAR, section file missing variable LSE$$HIGLIGHT
  required by editor.
  %FORMS-I-INSLSEEND, installation of LSE support completed
  ```

  The warning message does not affect the DECforms installation or DEC LSE support.
- Modifiable message file procedures that allow you to translate DECforms run-time messages from English to the language of your choice. DECFORMS_MESSAGE.TXT explains how to use these procedures. The file is located in SYS$COMMON:[SYSHLP.EXAMPLES.FORMS.MESSAGES].
- Oracle TRACE support that includes a binary definition of DECforms Oracle TRACE events.

- DECforms Web Connector support, which allows you to run DECforms applications using a Web browser.

10. **Purge files.**

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

You can purge files from previous versions of DECforms that this installation supersedes. Purging is recommended.

To keep files from the previous version, enter NO.

2.5.3 Informational Messages

The installation procedure displays a number of informational messages that report on the progress of the installation. There are no further questions. If the installation has been successful, VMSINSTAL moves the new or modified files to their target directories, updates help files, purges appropriate files, and updates DCL tables, if necessary. The procedure displays the following message:

```
%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target
   directories...
```

2.5.4 Running the Installation Verification Procedure

If you chose to run the IVP, VMSINSTAL runs it now. The procedure displays the following messages for the full development kit:

```
Starting DECforms V3.1 Installation Verification Procedure.
DECforms V3.1 Installation Verification Procedure beginning.
DECforms V3.1 Installation Verification Procedure completed successfully.

  The Installation Verification Procedure has completed successfully.
  Refer to the Installation Guide for further verification procedures
```

The procedure displays the following messages for the run-time kit:

```
   Starting Installation Verification Procedure (IVP)

          for DECforms V3.1 run-time Manager

   DECforms Interactive Installation Verification Procedure Starting.

         [IVP panel displayed here]

   DECforms Interactive Installation Verification Procedure Complete.

   The Installation Verification Procedure has completed successfully.
   Refer to the Installation Guide for further verification procedures
```

For information on running the IVP after you have installed DECforms, see Section 2.3.

2.5.5 Completing the Installation Procedure

The following messages indicate that the installation is complete:

```
   Installation of FORMS031 V3.1 completed at 10:47

Enter the products to be processed from the next distribution volume set.
* Products: ^Z

       VMSINSTAL procedure done at 10:47
```

VMSINSTAL deletes or changes entries in the process symbol tables during the installation. Therefore, to continue to use the system manager's account and these symbols, log out and log in again.

2.6 Error Recovery

If errors occur during the installation or when the IVP is running, VMSINSTAL displays failure messages. If the installation fails, the procedure displays the following message:

```
%VMSINSTAL-E-INSFAIL, The installation of DECforms V3.1 has failed.
```

If the IVP fails, the procedure displays the following messages:

```
The DECforms V3.1 Installation Verification Procedure failed.

%VMSINSTAL-E-IVPFAIL, The IVP for DECforms V3.1 has failed.
```

Errors might occur during the installation if any of the following conditions exists:

- The version of the operating system is incorrect.
- A required software version is incorrect.
- Quotas are insufficient.
- System parameter values are insufficient.
- The OpenVMS Help library is being used.
- The product license has not been registered and loaded.

For descriptions of the error messages generated by these conditions, see the OpenVMS documentation on system messages and recovery procedures. Take the appropriate action as described in the message. (You might need to change a system parameter or increase an authorized quota value.)

For information on installation requirements, see Chapter 1.

3
After Installing DECforms Software

After installing DECforms software, you might need to do the following tasks:

- Edit the system startup file to include the DECforms startup procedure.
- Access the Hebrew run-time message file.
- Set user account privileges and quotas.
- Set system parameters.
- Make DECforms available on each licensed node in your OpenVMS Cluster system (if you are installing DECforms on an OpenVMS Cluster).
- Install the form development utilities.

This chapter explains how to do these tasks.

3.1 Editing the System Startup File

You can provide for automatic startup of DECforms when your system is rebooted, and define output formats for dates and times other than the standard OpenVMS format, by editing the system startup file, SYS$STARTUP:SYSTARTUP_VMS.COM.

To cause automatic startup of DECforms, insert the following line in the system startup file:

```
$ @SYS$STARTUP:FORMS$STARTUP.COM
```

Include this line with command lines that start up other products. The command lines should follow the network startup command line, as follows:

```
$ @SYS$MANAGER:STARTNET.COM
      .
      .
      .
$ @SYS$STARTUP:FORMS$STARTUP.COM
```

To have access to date and time formats other than the default standard formats, run a procedure named LIB$DT_STARTUP.COM in your system startup file. If you want this command procedure to define the spellings of non-English date and time elements, you must define the SYS$LANGUAGES logical name before you run the LIB$DT_STARTUP command procedure. The English spellings of date and time elements remain available.

For example, to cause French and German spellings of date and time elements and alternate date and time formats, add the following commands to SYSTARTUP_VMS.COM:

```
$ DEFINE SYS$LANGUAGES FRENCH, GERMAN
$ @SYS$MANAGER:LIB$DT_STARTUP.COM
```

You can add the definition of SYS$LANGUAGES and the command to run LIB$DT_STARTUP.COM directly after the DECforms startup command line.

For more information on the SYS$LANGUAGES logical name and the LIB$DT_STARTUP command procedure, see the OpenVMS documentation on date and time formatting routines.

3.2 Hebrew Installation Notes

The DECforms installation process places the Hebrew run-time message file in:

SYS$MESSAGE:FORMS$MSGMGRSHR_HEBREW.EXE

The English run-time message file is found in:

SYS$MESSAGE:FORMS$MSGMGRSHR.EXE

DECforms uses the English message file by default. To use the Hebrew messages, the system manager should replace the English file with the Hebrew file, and then reinstall the image by performing @SYS$STARTUP:FORMS$STARTUP.

The user also can use the logical name FORMS$MSGMGRSHR to point to the desired language-specific message file.

3.3 User Account Requirements

To use DECforms, user accounts on your system must have the TMPMBX and NETMBX privileges. The accounts also must have the quotas shown in Table 3–1.

Table 3–1 Minimum User Account Quotas for Developing DECforms Applications

Account Quota	Minimum Value
BYTLM	16384
PRCLM	3

User account privileges and quotas are stored in the file SYSUAF.DAT.

To verify and change user account privileges and quotas, use the Authorize Utility as follows:

1. Set your directory to SYS$SYSTEM and run the Authorize Utility:

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

2. To check a particular account, at the Authorize Utility prompt (UAF>) enter the SHOW command with an account name. For example:

   ```
   UAF> SHOW SMITH
   ```

3. To change a privilege or quota, enter the MODIFY command in the following syntax:

   MODIFY account-name /PRIVILEGES=privilege-name/quota-name=nnnn

   The following example adds the NETMBX privilege, modifies the BYTLM quota for the SMITH account, and exits the utility:

   ```
   UAF> MODIFY SMITH /PRIVILEGES=NETMBX /BYTLM=16384
   UAF> EXIT
   ```

   After you exit the utility, the OpenVMS operating system displays messages indicating whether changes were made. Once you have made the changes, users must log out and log in again for the new privileges and quotas to take effect.

For more information on modifying account privileges and quotas, see the *Compaq OpenVMS System Management Utilities Reference Manual*.

3.4 System Parameters

Table 3–2 shows the minimum values to which certain system parameters should be set when users develop DECforms applications on your system.

Table 3–2 Minimum System Parameter Values for Developing DECforms Applications

System Parameter	Minimum Value
PQL_MBYTLM	16384
PQL_MPRCLM	3
MAXBUF[1]	4096

[1]This value applies to both the full development kit and the run-time kit.

To change system parameters, do the following:

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

   To change the value of a parameter that is listed in the MODPARAMS.DAT file, use an editor to locate the line containing that parameter. Delete the current value associated with that parameter and enter the new value.

   To add a new value, add a line to the MODPARAMS.DAT file. Make sure you include both the name of the parameter and its value in the new line. For example, to include a setting for the PQL_MBYTLM and PQL_MPRCLM parameters, add the following lines to the MODPARAMS.DAT file:

   ```
   PQL_MBYTLM=16384
   PQL_MPRCLM=3
   ```

2. Run the AUTOGEN procedure to recalculate your system parameters.

   After you have modified the MODPARAMS.DAT file and exited the editor, enter the following command:

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

   AUTOGEN does an automatic system shutdown and reboots once it has finished. Rebooting your system activates the new parameter values. For more information about using AUTOGEN, see the instructions on modifying system parameters in the OpenVMS documentation on system management and operations.

3.5 Cluster Considerations

After you install DECforms on an OpenVMS Cluster system, you must do the following tasks on each licensed node in the OpenVMS Cluster system:

- Run the DECforms startup command procedure.
- Install DCLTABLES.EXE.
- Register the license for DECforms.
- Run the full development kit IVP (if you are installing the full development kit) and the run-time kit IVP.

To run the startup command procedure, log into a node in the OpenVMS Cluster system and enter the following command:

```
$ @SYS$STARTUP:FORMS$STARTUP.COM
```

To install DCLTABLES.EXE, enter the following command:

```
$ INSTALL REPLACE SYS$SHARE:DCLTABLES.EXE/OPEN/SHARE/HEADER
```

To register the DECforms license on a node, see Section 1.4. To run the full development kit and run-time kit IVPs, see Section 2.3.

3.6 Installing the Form Development Utilities as Shared Images

DECforms provides the following form development utilities:

- Form Development Environment (FDE)
- Character-cell Panel Editor (CCPED)
- Motif-based Panel Editor (MPED)
- IFDL Translator
- Back Translator
- Layout Converter
- Extract Utility
- Test Utility
- FMS Converter

If you use these form development utilities extensively on your system, you can install them as shared images to reduce the system overhead and memory requirements.

To install the form development utilities as shared images, do the following:

1. Determine the number of available global pages and global sections on your system. For information on how to verify and modify the number of global pages and global sections, see Section 1.5.4.

   To install the form development utilities as shared images, you must increase the number of global pages by 6000 and the number of global sections by 30. These are increases over what is required during installation. Install the utilities just after you start your system. The available space in the global page table is less likely to be fragmented.

2. To install the form development utilities as shared images on a currently running system, enter the following command:

   ```
   $ @SYS$STARTUP:FORMS$STARTUP.COM  DEVELOP
   ```

   To install the utilities as shared images each time your system is rebooted, add the DEVELOP parameter to the line you added to the system startup file, SYS$STARTUP:SYSTARTUP_VMS.COM (see Section 3.1), as follows:

   ```
   $ @SYS$MANAGER:STARTNET.COM
        .
        .
        .
   $ @SYS$STARTUP:FORMS$STARTUP.COM  DEVELOP
   ```

To install selected form utilities, use the OpenVMS Install Utility (INSTALL). For example, to install only the Character-cell Panel Editor as a shared image, enter the following commands:

```
$ INSTALL
INSTALL> ADD SYS$LIBRARY:FORMS$FSESHR.EXE /OPEN /SHARED /HEADER
INSTALL> ADD SYS$LIBRARY:FORMS$PEDSHR.EXE /OPEN /SHARED /HEADER
INSTALL> ADD SYS$MESSAGE:FORMS$MSGPRDSHR.EXE /OPEN /SHARED /HEADER
INSTALL> ADD SYS$LIBRARY:FORMS$PEDVTEXEC.EXE /OPEN /SHARED /HEADER
INSTALL> EXIT
```

Note

You must install FORMS$FSESHR.EXE and FORMS$MSGPRDSHR.EXE with the first form development utility that you install. Once you have installed these two images, you need not reinstall them to add other form development utilities.

3.7 Determining and Reporting Problems

If an error occurs while DECforms is being used and you believe that a problem with DECforms is causing the error, take one of the following actions:

- If you have a BASIC or DECsupport Software Agreement, call your Customer Support Center.
- If you have a Self-Maintenance Software Agreement, submit a Software Performance Report (SPR).
- If you purchased DECforms within the past 90 days and you think a software error is causing the error, submit an SPR.

If you find an error in the DECforms documentation, please see the *Send Us Your Comments* section in the Preface for instructions.

A

VAX Systems Sample Installation

This appendix contains a sample installation of Compaq DECforms software. Depending on which layered products you have on your system, you might see additional messages and questions when you install Compaq DECforms software.

The sample installation assumes the following:

- DECnet has been shut down.[1]
- No users are logged in to the system.
- The installation kit is in SYS$UPDATE.
- OPTIONS N is specified during the full development kit installation to print the release notes, but not during the run-time kit installation.
- The Installation Verification Procedure (IVP) runs after each kit has been installed.

A.1 Full Development Kit

Example A–1 contains a sample installation for the DECforms full development kit on a VAX system.

[1] Although it is not necessary to shut down DECnet to perform a successful DECforms installation, VMSINSTAL checks to see if DECnet is shut down.

Example A–1 VAX Sample Full Development Kit Installation

```
$  @vmsinstal forms031

        OpenVMS VAX Software Product Installation Procedure V7.1

It is 18-NOV-1999 at 14:52.

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

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

* Where will the distribution volumes be mounted: MYDISK:[MYDIRECTORY]

Enter the products to be processed from the first distribution volume set.

* Products: FORMS031
* Enter installation options you wish to use (none):

The following products will be processed:
  FORMS V3.1

        Beginning installation of FORMS V3.1 at 14:52

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


  FORMS V3.1

        Beginning installation of FORMS V3.1 at 14:52

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

    ******************************************************************
    *                                                                *
    *                    D E C f o r m s    V 3 . 1                  *
    *                ===================================             *
    *                      Full Development Kit                      *
    *                                                                *
    *                   Copyright (C) 1989 - 1999 by                 *
    *              Digital Equipment Corporation, Maynard, MA        *
    *                       All Rights Reserved.                     *
    *                                                                *
    ******************************************************************


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

      The installation of this kit will supersede any prior version of
                DECforms that may be installed on this system.

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

* Do you wish to install the main kit (16000 blocks) [YES]? ?
```

(continued on next page)

Example A–1 (Cont.) VAX Sample Full Development Kit Installation

```
        Product:      FORMS
        Producer:     DEC
        Version:      3.1
        Release Date: 06-DEC-1999

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

    This product requires that a Product Authorization Key (PAK) be
    registered and loaded in order to execute.

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

     This kit contains an Installation Verification Procedure (IVP)
     to  verify the correct installation of DECforms.  It can be run
     prior to the conclusion of this procedure by answering "YES" to
     the IVP prompt or invoked after the installation as follows:
           @SYS$TEST:FORMS$IVP.COM

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

* Do you wish to install Sample Application Programs (3000 blocks) [YES]?

* Do you wish to install the demonstration package (12000 blocks) [YES]?

* Do you wish to install LSEDIT support (250 blocks) [YES]?

* Do you wish to install modifiable message file procedures (600 blocks) [YES]?

* Do you wish to register DECforms for Oracle TRACE support (50 blocks) [YES]?

     ************************************************************************
     *                                                                      *
     *   ***** Compaq DECforms Web Connector V2.0 Available Now *****       *
     *                                                                      *
     *    This software product provides transparent Web access to          *
     *    existing DECforms applications running on OpenVMS systems         *
     *               including ACMS-based applications.                     *
     *                                                                      *
     *           For more information visit our web page at                 *
     * http://www.openvms.digital.com/commercial/webconnector/index.htm.    *
     *                                                                      *
     ************************************************************************

* Do you wish to install DECforms Web Connector support [YES]?

     The FORMS_WATCHDOG and FORMS_SERVER processes are already running.
     They provide DECforms Web Connector access. It is recommended that
     these processes be restarted as part of this kit installation.

* Do you want to restart these processes [YES]? y

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

    The remainder of the installation is expected to take
    between 5 and 35 minutes.

    No further questions will be asked during this installation.
```

(continued on next page)

Example A–1 (Cont.) VAX Sample Full Development Kit Installation

```
%FORMS-I-MAINKITBEGIN, restoring main kit.
%VMSINSTAL-I-RESTORE, Restoring product save set B ...
%FORMS-I-MAINKITEND, main kit restored.

%FORMS-I-SMPKITSTART, restoring Sample Application package.
%VMSINSTAL-I-RESTORE, Restoring product save set C ...
%FORMS-I-SMPKITEND, Sample Application package restored.

%FORMS-I-DEMKITSTART, restoring Demonstration Package.
%VMSINSTAL-I-RESTORE, Restoring product save set D ...
%FORMS-I-DEMKITEND, Demonstration Package restored.

%FORMS-I-TRACEADDED, DECforms Oracle TRACE definition successfully added to
 the Oracle TRACE registrar.

%FORMS-I-INSMAINSTART, beginning installation of main kit.
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
 VMI$ROOT:[SYSTEST.FORMS].
%CREATE-I-EXISTS, VMI$ROOT:[SYSTEST.FORMS] already exists
%FORMS-I-INSMAINEND, installation of main kit complete.

%VMSINSTAL-I-SYSDIR, This product creates system disk directory
 VMI$ROOT:[SYSHLP.EXAMPLES.FORMS].
%CREATE-I-EXISTS, VMI$ROOT:[SYSHLP.EXAMPLES.FORMS] already exists
%FORMS-I-INSSMPSTART, beginning installation of Sample Application.
%FORMS-I-INSSMPEND, installation of Sample Application complete.

%FORMS-I-INSDEMSTART, beginning installation of Demonstration Package.
%FORMS-I-INSDEMEND, installation of Demonstration Package completed..

%FORMS-I-INSLSESTART, beginning installation of LSEDIT support.
%TPU-S-SAVEENV, environment written to
 $255$DUA3:[SYSFE.SYSUPD.FORMS031]LSE$SYSTEM_ENVIRONMENT.ENV;1
%FORMS-I-INSLSEEND, installation of LSEDIT support completed.

%FORMS-I-INSDEMSTART, beginning installation of message support.
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
 VMI$ROOT:[SYSHLP.EXAMPLES.FORMS.MESSAGES].
%CREATE-I-EXISTS, VMI$ROOT:[SYSHLP.EXAMPLES.FORMS.MESSAGES] already exists
%FORMS-I-INSDEMEND, installation of message support completed.


  All files installed have names beginning with the product
  facility code (FORMS$).
  The following system areas are updated by this installation:

        [SYSEXE]               - added FORMS$*.EXE
        [SYSLIB]               - added FORMS$*.EXE files
                               - added language definition files
        [SYSHLP]               - added Forms component help files
        [SYSMSG]               - added message files
        [SYS$STARTUP]          - added FORMS$STARTUP.COM
        [DECW$DEFAULTS]        - added Forms development environment initialization files.
        [SYSTEST]              - added IVP procedures
        [SYSTEST.FORMS]        - added IVP files
```

(continued on next page)

Example A–1 (Cont.) VAX Sample Full Development Kit Installation

```
       [SYSHLP.EXAMPLES.FORMS] - added sample application files
       [SYSHLP.EXAMPLES.FORMS] - added Demonstration Package
       [SYSHLP.EXAMPLES.FORMS.MESSAGES] - added modifiable message file procedures

  These files are modified:

       [SYSLIB]STARLET.OLB      for FORMS$MGR_OBJECT_TABLES*.OBJ
       [SYSLIB]IMAGELIB.OLB     for FORMS$MANAGER.EXE
       [SYSLIB]DCLTABLES.EXE    for FORMS$DCL_COMMAND_TABLE.CLD
       [SYSHLP]HELPLIB.LIB      for Forms help
       [SYSLIB]LSE$SYSTEM_ENVIRONMENT.ENV for Forms IFDL environment
       [SYSLIB]EPC$FACILITY.TLB for Forms Oracle TRACE facility definition.


  The final part of the installation process will now occur.
  Upon completion of this installation, please be sure to edit the system
  startup file in order to run FORMS$STARTUP.COM

  Please read the release notes before using DECforms. They contain important
  information for this release.

  They are located in SYS$HELP:FORMS031.RELEASE_NOTES.

%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target
directories...

Starting DECforms V3.1 Installation Verification Procedure.


   ************************************************************************
   ***                                                                  ***
   ***                            DECforms V3.1                         ***
   ***                                                                  ***
   ***                 Installation Verification Procedure              ***
   ***                                                                  ***
   ************************************************************************


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```

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Example A–1 (Cont.) VAX Sample Full Development Kit Installation

```
DECforms V3.1 Installation Verification Procedure beginning.
DECforms V3.1 Installation Verification Procedure completed successfully.

  The Installation Verification Procedure has completed successfully.
  Refer to the Installation Guide for further verification procedures
        Installation of FORMS V3.1 completed at 15:05

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

    Creating installation data file: VMI$ROOT:[SYSUPD]FORMS031.VMI_DATA

        VMSINSTAL procedure done at 15:05

$ logout
 SYSTEM logged out at  18-NOV-1999 15:05:11:23
```

A.2 Run-Time Kit

Example A–2 contains a sample installation for the DECforms run-time kit.

Example A–2 VAX Sample Run-Time Kit Installation

```
$ @vmsinstal formsrt031

        OpenVMS VAX Software Product Installation Procedure V7.1

It is 18-NOV-1999 at 09:50.

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

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

* Where will the distribution volumes be mounted: MYDISK:[MYDIRECTORY]

Enter the products to be processed from the first distribution volume set.

* Products: FORMSRT031

* Enter installation options you wish to use [NONE]?

The following products will be processed:

  FORMSRT V3.1

        Beginning installation of FORMSRT V3.1 at 09:50

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

    ******************************************************************
    *                                                                *
    *                    D E C f o r m s    V 3 . 1                  *
    *                ==================================              *
    *                           Runtime Kit                          *
    *                                                                *
    *                  Copyright (C) 1989 - 1999 by                  *
    *            Digital Equipment Corporation, Maynard, MA          *
    *                     All Rights Reserved.                       *
    *                                                                *
    ******************************************************************

        Product:      FORMS-RT
        Producer:     DEC
        Version:      3.1
        Release Date: 01-DEC-1999

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

(continued on next page)

Example A–2 (Cont.) VAX Sample Run-Time Kit Installation

```
           This kit contains an Installation Verification Procedure (IVP)
           to  verify the correct installation of DECforms.  Because the
           IVP requires interactive operator input, it must be run using a
           VT100, VT200, VT300, VT400, or VT500 compatible video terminal.
           If you are using one of these terminal types, you may run the
           procedure immediately after installation by answering "YES" to
           the IVP prompt. Or you may choose to invoke it later using
           the following:

           @SYS$TEST:FORMS$RT_IVP.COM

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

* Do you wish to register DECforms for Oracle TRACE support (50 blocks) [YES]?

%FORMSRT-I-TRACEADDED, DECforms Oracle TRACE definition successfully added to
 the Oracle TRACE registrar.

     ************************************************************************
     *                                                                      *
     *   ***** Compaq DECforms Web Connector V2.0 Available Now *****       *
     *                                                                      *
     *    This software product provides transparent Web access to          *
     *    existing DECforms applications running on OpenVMS systems         *
     *                including ACMS-based applications.                    *
     *                                                                      *
     *           For more information visit our web page at                 *
     * http://www.openvms.digital.com/commercial/webconnector/index.htm.    *
     *                                                                      *
     ************************************************************************


* Do you wish to install DECforms Web Connector support [YES]?

        The FORMS_WATCHDOG and FORMS_SERVER processes are already running.
        They provide DECforms Web Connector access. It is recommended that
        these processes be restarted as part of this kit installation.

* Do you want to restart these processes [YES]?

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

  No further questions will be asked during this installation.

%VMSINSTAL-I-SYSDIR, This product creates system disk directory  VMI$ROOT:[SYSTTEST.FORMS].
%CREATE-I-EXISTS, VMI$ROOT:[SYSTEST.FORMS] already exists

           The following files are added by this installation:
```

(continued on next page)

Example A–2 (Cont.) VAX Sample Run-Time Kit Installation

```
           SYS$LIBRARY:FORMS$MANAGER.EXE
           SYS$LIBRARY:FORMS$SDA.EXE
           SYS$LIBRARY:FORMS$MGRXMSHR.EXE
           SYS$LIBRARY:FORMS$MGRWEBSHR.EXE
           SYS$LIBRARY:FORMS$MGRDDIFSHR.EXE
           SYS$LIBRARY:FORMS$CIOSHR.EXE
           SYS$LIBRARY:FORMS$PORTABLE_API.EXE
           SYS$SYSTEM:FORMS_SWO_SERVER.EXE
           SYS$SYSTEM:FORMS_SWO_AGENT.EXE
           SYS$SYSTEM:FORMS_SWO_WATCHDOG.EXE
           SYS$MESSAGE:FORMS$MSGMGRSHR.EXE
           SYS$MESSAGE:FORMS$MSGMGRSHR_HEBREW.EXE
           SYS$STARTUP:FORMS$STARTUP.COM
           SYS$STARTUP:FORMS_SWO_STARTUP.COM
           SYS$STARTUP:FORMS_SWO_WATCHDOG.COM
           SYS$TEST:FORMS$RT_IVP.COM
           SYS$COMMON:[SYSTEST.FORMS]FORMS$RT_IVP.EXE

           The following files have been updated:

           SYS$LIBRARY:STARLET.OLB (inserted FORMS$MGR_OBJECT_TABLES*.OBJ)
           SYS$LIBRARY:IMAGELIB.OLB (inserted FORMS$MANAGER.EXE)
%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target directories...


Starting Installation Verification Procedure (IVP)

       for DECforms V3.1 run-time Manager

DECforms Installation Verification Procedure

  If you are reading this panel, it indicates that DECforms has
  successfully Enabled a form.

  Press Ctrl/Z or F10 to complete the Installation verification
  Procedure.  If you do not receive any failure messages, the
  Procedure has successfully disabled this form.

  The Installation Verification Procedure has completed successfully.
  Refer to the Installation Guide for further verification procedures
        Installation of FORMSRT V3.1 completed at 09:56


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

    Creating installation data file: VMI$ROOT:[SYSUPD]FORMSRT031.VMI_DATA

        VMSINSTAL procedure done at 09:56

$ logout
  SYSTEM       logged out at  18-NOV-1999 09:56:07.21
```

B

Alpha Systems Sample Installation

This appendix contains a sample installation of Compaq DECforms software. Depending on which layered products you have on your system, you might see additional messages and questions when you install Compaq DECforms software.

The sample installation assumes the following:

- DECnet has been shut down.[1]
- No users are logged in to the system.
- The installation kit is in SYS$UPDATE.
- OPTIONS N is specified during the full development kit installation to print the release notes, but not during the run-time kit installation.
- The Installation Verification Procedure (IVP) runs after each kit has been installed.

B.1 Full Development Kit

Example B–1 contains a sample installation for the DECforms full development kit on an Alpha system.

[1] Although it is not necessary to shut down DECnet to perform a successful DECforms installation, VMSINSTAL checks to see if DECnet is shut down.

Example B–1 Alpha Sample Full Development Kit Installation

```
$  @vmsinstal formsa031

        OpenVMS AXP Software Product Installation Procedure V7.2


It is 17-NOV-1999 at 14:50.

Enter a question mark (?) at any time for help.
%VMSINSTAL-W-ACTIVE, The following processes are still active:
       DCE$RPCD
       NOTES$00AA_0*
       UCX$ESNMP
       UCX$OS_MIBS
       UCX$HR_MIB
* Do you want to continue anyway [NO]? y
* Are you satisfied with the backup of your system disk [YES]? y
* Where will the distribution volumes be mounted: MYDISK:[MYDIRECTORY]

Enter the products to be processed from the first distribution volume set.
* Products: FORMSA031
* Enter installation options you wish to use (none):
The following products will be processed:
  FORMSA V3.1

        Beginning installation of FORMSA V3.1 at 14:52

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


    ******************************************************************
    *                                                                *
    *                    D E C f o r m s    V 3 . 1                  *
    *                ==================================              *
    *                      Full Development Kit                      *
    *                                                                *
    *                   Copyright (C) 1989 - 1999 by                 *
    *               Digital Equipment Corporation, Maynard, MA       *
    *                         All Rights Reserved.                   *
    *                                                                *
    ******************************************************************


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

      The installation of this kit will supersede any prior version of
                DECforms that may be installed on this system.

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


* Do you wish to install the main kit (16000 blocks) [YES]? ?
```

(continued on next page)

Example B–1 (Cont.) Alpha Sample Full Development Kit Installation

```
        Product:      FORMS
        Producer:     DEC
        Version:      3.1
        Release Date: 06-DEC-1999

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

           This kit contains an Installation Verification Procedure (IVP)
           to  verify the correct installation of DECforms. It can be run
           prior to the conclusion of this procedure by answering "YES" to
           the IVP prompt or invoked after the installation as follows:

           @SYS$TEST:FORMS$IVP.COM

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

* Do you wish to install Sample Application Programs (3000 blocks) [YES]?

* Do you wish to install the demonstration package (12000 blocks) [YES]?

* Do you wish to install LSEDIT support (250 blocks) [YES]?

* Do you wish to install modifiable message file procedures (600 blocks) [YES]?

* Do you wish to register DECforms for Oracle TRACE support (50 blocks) [YES]?

     ************************************************************************
     *                                                                      *
     *   ***** Compaq DECforms Web Connector V2.0 Available Now *****       *
     *                                                                      *
     *    This software product provides transparent Web access to          *
     *    existing DECforms applications running on OpenVMS systems         *
     *               including ACMS-based applications.                     *
     *                                                                      *
     *           For more information visit our web page at                 *
     * http://www.openvms.digital.com/commercial/webconnector/index.htm.    *
     *                                                                      *
     ************************************************************************

* Do you wish to install DECforms Web Connector support [YES]?

     The FORMS_WATCHDOG and FORMS_SERVER processes are already running.
     They provide DECforms Web Connector access. It is recommended that
     these processes be restarted as part of this kit installation.

* Do you want to restart these processes [YES]? y

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

   The remainder of the installation is expected to take between
   5 and 35 minutes.

   No further questions will be asked during this installation.
```

(continued on next page)

Example B–1 (Cont.) Alpha Sample Full Development Kit Installation

```
%FORMSA-I-MAINKITBEGIN, restoring main kit.
%VMSINSTAL-I-RESTORE, Restoring product save set B ...
%FORMSA-I-MAINKITEND, main kit restored.

%FORMSA-I-SMPKITSTART, restoring Sample Application package.
%VMSINSTAL-I-RESTORE, Restoring product save set C ...
%FORMSA-I-SMPKITEND, Sample Application package restored.

%FORMSA-I-DEMKITSTART, restoring Demonstration Package.
%VMSINSTAL-I-RESTORE, Restoring product save set D ...
%FORMSA-I-DEMKITEND, Demonstration Package restored.

%FORMSA-I-TRACEADDED, DECforms Oracle TRACE definition successfully added to
 the Oracle TRACE registrar.

%FORMSA-I-INSMAINSTART, beginning installation of main kit.
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
 VMI$ROOT:[SYSTEST.FORMS].
%CREATE-I-EXISTS, VMI$ROOT:[SYSTEST.FORMS] already exists
%FORMSA-I-INSMAINEND, installation of main kit complete.

%VMSINSTAL-I-SYSDIR, This product creates system disk directory
 VMI$ROOT:[SYSHLP.EXAMPLES.FORMS].
%CREATE-I-EXISTS, VMI$ROOT:[SYSHLP.EXAMPLES.FORMS] already exists
%FORMSA-I-INSSMPSTART, beginning installation of Sample Application.
%FORMSA-I-INSSMPEND, installation of Sample Application complete.

%FORMSA-I-INSDEMSTART, beginning installation of Demonstration Package.
%FORMSA-I-INSDEMEND, installation of Demonstration Package completed..

%FORMSA-I-INSLSESTART, beginning installation of LSEDIT support.
%TPU-S-SAVEENV, environment written to $255$DUA3:[SYSFE.SYSUPD.FORMSA031]
  LSE$SYSTEM_ENVIRONMENT.ENV;1
%FORMSA-I-INSLSEEND, installation of LSEDIT support completed.

%FORMSA-I-INSDEMSTART, beginning installation of message support.
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
  VMI$ROOT:[SYSHLP.EXAMPLES.FORMS.MESSAGES].
%CREATE-I-EXISTS, VMI$ROOT:[SYSHLP.EXAMPLES.FORMS.MESSAGES] already exists
%FORMSA-I-INSDEMEND, installation of message support completed.


  All files installed have names beginning with the product
  facility code (FORMS$).
  The following system areas are updated by this installation:

        [SYSEXE]               - added FORMS$*.EXE
        [SYSLIB]               - added FORMS$*.EXE files
                               - added language definition files
        [SYSHLP]               - added Forms component help files
        [SYSMSG]               - added message files
        [SYS$STARTUP]          - added FORMS$STARTUP.COM
        [DECW$DEFAULTS]        - added Forms development environment initialization files.
        [SYSTEST]              - added IVP procedures
        [SYSTEST.FORMS]        - added IVP files
```

(continued on next page)

Example B–1 (Cont.) Alpha Sample Full Development Kit Installation

```
       [SYSHLP.EXAMPLES.FORMS] - added sample application files
       [SYSHLP.EXAMPLES.FORMS] - added Demonstration Package
       [SYSHLP.EXAMPLES.FORMS.MESSAGES] - added modifiable message file procedures

  These files are modified:

       [SYSLIB]STARLET.OLB      for FORMS$MGR_OBJECT_TABLES*.OBJ
       [SYSLIB]IMAGELIB.OLB     for FORMS$MANAGER.EXE
       [SYSLIB]DCLTABLES.EXE    for FORMS$DCL_COMMAND_TABLE.CLD
       [SYSHLP]HELPLIB.LIB      for Forms help
       [SYSLIB]LSE$SYSTEM_ENVIRONMENT.ENV for Forms IFDL environment
       [SYSLIB]EPC$FACILITY.TLB for Forms Oracle TRACE facility definition.


  The final part of the installation process will now occur.
  Upon completion of this installation, please be sure to edit the system
  startup file in order to run FORMS$STARTUP.COM

  Please read the release notes before using DECforms. They contain important
  information for this release.

  They are located in SYS$HELP:FORMSA031.RELEASE_NOTES.

%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target
directories...

Starting DECforms V3.1 Installation Verification Procedure.


   ************************************************************************
   ***                                                                  ***
   ***                            DECforms V3.1                         ***
   ***                                                                  ***
   ***                 Installation Verification Procedure              ***
   ***                                                                  ***
   ************************************************************************


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```

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Example B–1 (Cont.) Alpha Sample Full Development Kit Installation

```
DECforms V3.1 Installation Verification Procedure beginning.
DECforms V3.1 Installation Verification Procedure completed successfully.

  The Installation Verification Procedure has completed successfully.
  Refer to the Installation Guide for further verification procedures

        Installation of FORMSA V3.1 completed at 15:53

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

    Creating installation data file: VMI$ROOT:[SYSUPD]FORMSA031.VMI_DATA

        VMSINSTAL procedure done at 15:53

$ logout
 SYSTEM logged out at  18-NOV-1999 15:53:11:23
```

B.2 Run-Time Kit

Example B–2 contains a sample installation for the DECforms run-time kit. The sample installation is a standard run-time installation, with instructions on how to start and stop the FORMS_WATCHDOG and FORMS_SERVER processes.

Example B–2 Alpha Sample Run-Time Kit Installation

```
$ @vmsinstal formsrta031

        OpenVMS AXP Software Product Installation Procedure V7.2

It is 18-NOV-1999 at 09:50.

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

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

* Where will the distribution volumes be mounted: MYDISK:[MYDIRECTORY]
Enter the products to be processed from the next distribution volume set.
* Products: FORMSRTA031
Enter installation options you wish to use [NONE]?
The following products will be processed:
  FORMSRTA V3.1

        Beginning installation of FORMSRTA V3.1 at 9:50

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

    ******************************************************************
    *                                                                *
    *                   D E C f o r m s    V 3 . 1                   *
    *                ===================================             *
    *                           Runtime Kit                          *
    *                                                                *
    *                  Copyright (C) 1989 - 1999 by                  *
    *            Digital Equipment Corporation, Maynard, MA          *
    *                     All Rights Reserved.                       *
    *                                                                *
    ******************************************************************

        Product:      FORMS-RT
        Producer:     DEC
        Version:      3.1
        Release Date: 06-DEC-1999

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

(continued on next page)

Example B–2 (Cont.) Alpha Sample Run-Time Kit Installation

```
           This kit contains an Installation Verification Procedure (IVP)
           to  verify the correct installation of DECforms. Because the
           IVP requires interactive operator input, it must be run using a
           VT100, VT200, VT300, VT400, or VT500 compatible video terminal.
           If you are using one of these terminal types, you may run the
           procedure immediately after installation by answering "YES" to
           the IVP prompt. O you may choose to invoke it later using
           the following:

           @SYS$TEST:FORMS$RT_IVP.COM

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

* Do you wish to register DECforms for Oracle TRACE support (50 blocks) [YES]?

%FORMSRTA-I-TRACEADDED, DECforms Oracle TRACE definition successfully added
to the Oracle TRACE registrar.

     ************************************************************************
     *                                                                      *
     *   ***** Compaq DECforms Web Connector V2.0 Available Now *****       *
     *                                                                      *
     *    This software product provides transparent Web access to          *
     *    existing DECforms applications running on OpenVMS systems         *
     *                including ACMS-based applications.                    *
     *                                                                      *
     *           For more information visit our web page at                 *
     * http://www.openvms.digital.com/commercial/webconnector/index.htm.    *
     *                                                                      *
     ************************************************************************


* Do you wish to install DECforms Web Connector support [YES]?

        The FORMS_WATCHDOG and FORMS_SERVER processes are already running.
        They provide DECforms Web Connector access. It is recommended that
        these processes be restarted as part of this kit installation.

* Do you want to restart these processes [YES]?

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

  No further questions will be asked during this installation.

%VMSINSTAL-I-SYSDIR, This product creates system disk directory
VMI$ROOT:[SYSTEST.FORMS]
%CREATE-I-EXISTS, VMI$ROOT:[SYSTEST.FORMS] already exists

           The following files are added by this installation:
```

(continued on next page)

Example B–2 (Cont.) Alpha Sample Run-Time Kit Installation

```
           SYS$LIBRARY:FORMS$MANAGER.EXE
           SYS$LIBRARY:FORMS$SDA.EXE
           SYS$LIBRARY:FORMS$MGRXMSHR.EXE
           SYS$LIBRARY:FORMS$MGRWEBSHR.EXE
           SYS$LIBRARY:FORMS$MGRDDIFSHR.EXE
           SYS$LIBRARY:FORMS$CIOSHR.EXE
           SYS$LIBRARY:FORMS$PORTABLE_API.EXE
           SYS$SYSTEM:FORMS_SWO_SERVER.EXE
           SYS$SYSTEM:FORMS_SWO_AGENT.EXE
           SYS$SYSTEM:FORMS_SWO_WATCHDOG.EXE
           SYS$MESSAGE:FORMS$MSGMGRSHR.EXE
           SYS$MESSAGE:FORMS$MSGMGRSHR_HEBREW.EXE
           SYS$STARTUP:FORMS$STARTUP.COM
           SYS$STARTUP:FORMS_SWO_STARTUP.COM
           SYS$STARTUP:FORMS_SWO_WATCHDOG.COM
           SYS$TEST:FORMS$RT_IVP.COM
           SYS$COMMON:[SYSTEST.FORMS]FORMS$RT_IVP.EXE

           The following files have been updated:

           SYS$LIBRARY:STARLET.OLB (inserted FORMS$MGR_OBJECT_TABLES*.OBJ)
           SYS$LIBRARY:IMAGELIB.OLB (inserted FORMS$MANAGER.EXE)
%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target directories...


Starting Installation Verification Procedure (IVP)

       for DECforms V3.1 run-time Manager

DECforms Installation verification Procedure
  If you are reading this panel, it indicates that DECforms has
  successfully Enabled a form.

  Press Ctrl/Z or F10 to complete the Installation Verification
  Procedure.  If you do not receive any failure messages, the
  Procedire has successfully disabled this form.

  The Installation Verification Procedure has completed successfully.
  Refer to the Installation Guide for further verification procedures
        Installation of FORMSRTA V3.1 completed at 09:56


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

    Creating installation data file: VMI$ROOT:[SYSUPD]FORMSRTA031.VMI_DATA

        VMSINSTAL procedure done at 09:56

$ logout
  SYSTEM       logged out at  18-NOV-1999 09:56:07.21
```

If you do not have the Compaq Distributed Computing Environment (DCE) installed, you will see the following message during the installation:

```
* Do you wish to install DECforms Web Connector support [YES]?
%FORMSRTA-I-NODCE, $
-FORMSRTA-I-NODCE, DECforms requires DCE RPC runtime support to use
the DECforms Web Connector

        ********************************************************************
        * The DECforms Web Connector files will be installed on your system.*
        * After installing DCE RPC runtime support, edit                    *
        * SYS$STARTUP:FORMS$STARTUP.COM to comment out the line             *
        * $ GOTO NO_WEB_CONNECTOR                                           *
        * and execute SYS$STARTUP:FORMS$STARTUP.COM from the SYSTEM account *
        ********************************************************************
```

After installing the DECforms Web Connector, install DCE and edit SYS$STARTUP as directed.

C

Files and Logical Names Installed on Your System

The DECforms installation procedure installs a number of files on your system and defines some logical names. Section C.1 lists the files installed or modified by the DECforms full development kit. Section C.2 lists the files installed or modified by the DECforms run-time kit. Section C.3 describes the logical names the installation procedure defines.

C.1 Files Added and Modified by the Full Development Kit

The following list contains the names of all files installed on your system when you install the DECforms full development kit:

- Directory SYS$COMMON:[DECW$DEFAULTS]

  FORMS_MPE.DAT
  FORMS_MPE_COLOR.DAT
  FORMS_MPE_DECFORMS.WMD
  FORMS_MPE_VUIT.UID

- Directory SYS$COMMON:[SYSTEST]

  FORMS$IVP.COM
  FORMS$RT_IVP.COM

- Directory SYS$COMMON:[SYSTEST.FORMS]

  FORMS$RT_IVP.EXE

- Directory SYS$SYSROOT:[SYSEXE]

  FORMS$DISPATCH.EXE
  FORMS$TEXTEDIT.EXE
  FORMS_SWO_AGENT.EXE
  FORMS_SWO_SERVER.EXE
  FORMS_SWO_WATCHDOG.EXE

- Directory SYS$SYSROOT:[SYSHLP]

  FORMS$FDE_HELP.HLB
  FORMS$HELPLIB.HLB
  FORMS$PEDVTHELP.HLB
  FORMS_MPE_HELP.DECW$BOOK
  FORMSnnn.RELEASE_NOTES
  FORMSAnnn.RELEASE_NOTES

- Directory SYS$SYSROOT:[SYSHLP.EXAMPLES.FORMS]

  FORMS$CHECKING.EXE
  FORMS$CHECKING_ADA.ADA
  FORMS$CHECKING_BASIC.BAS
  FORMS$CHECKING_BASIC_COMMON.BAS
  FORMS$CHECKING_C.C
  FORMS$CHECKING_COBOL.COB
  FORMS$CHECKING_DATA.DAT
  FORMS$CHECKING_DIBOL.DBL — VAX only
  FORMS$CHECKING_FORM.FORM
  FORMS$CHECKING_FORM.IFDL
  FORMS$CHECKING_FORTRAN.FOR
  FORMS$CHECKING_GETSYSINFO.C
  FORMS$CHECKING_GETSYSINFO.OBJ
  FORMS$CHECKING_PASCAL.PAS
  FORMS$CHECKING_PLI.PLI
  FORMS$DEMO.COM
  FORMS$DEMO_CALCULATOR_FORM.EXE
  FORMS$DEMO_CALCULATOR_FORM.IFDL
  FORMS$DEMO_CALLS.COB
  FORMS$DEMO_CALLS.EXE
  FORMS$DEMO_CALLS.FORM
  FORMS$DEMO_CALLS.IFDL
  FORMS$DEMO_COMMAND_RECALL_FORM.EXE
  FORMS$DEMO_COMMAND_RECALL_FORM.IFDL
  FORMS$DEMO_COPYCAT_FORM.EXE
  FORMS$DEMO_COPYCAT_FORM.IFDL
  FORMS$DEMO_ENABLE.BAS
  FORMS$DEMO_ENABLE.EXE
  FORMS$DEMO_GLOBE_FORM.EXE
  FORMS$DEMO_GLOBE_FORM.IFDL
  FORMS$DEMO_GUIDE.PS
  FORMS$DEMO_GUIDE.TXT
  FORMS$DEMO_MRF_C.C

FORMS$DEMO_MRF_DEF.F
FORMS$DEMO_MRF.EXE
FORMS$DEMO_MRF_FOR.FOR
FORMS$DEMO_MRF_FORM.IFDL
FORMS$DEMO_ORDER_ENTRY_FORM.EXE
FORMS$DEMO_ORDER_ENTRY_FORM.IFDL
FORMS$DEMO_PHONE.EXE
FORMS$DEMO_PHONE.IFDL
FORMS$DEMO_PHONE.PAS
FORMS$DEMO_PHONE_FILE.DAT
FORMS$DEMO_RULE_FORM.EXE
FORMS$DEMO_RULE_FORM.IFDL
FORMS$DEMO_SHOW_TEXTLIB.COB
FORMS$DEMO_SHOW_TEXTLIB.EXE
FORMS$DEMO_SHOW_TEXTLIB.FORM
FORMS$DEMO_SHOW_TEXTLIB.IFDL
FORMS$DEMO_TEXTLIB.COB
FORMS$DEMO_TIMER.EXE
FORMS$DEMO_TIMER_AST.COB
FORMS$DEMO_TIMER_AST_ROUTINE.COB
FORMS$DEMO_TIMER_CHECK_STATUS.COB
FORMS$DEMO_TIMER_COMP_ROUTINE.COB
FORMS$DEMO_TIMER_FORM.IFDL
FORMS$DEMO_TIMER_SET_TIMER.COB
FORMS$DEMO_TM.C
FORMS$DEMO_TM.EXE
FORMS$DEMO_TM_FORM.IFDL
FORMS$DEMO_TRACK_AND_FIELD.C
FORMS$DEMO_TRACK_AND_FIELD.EXE
FORMS$DEMO_TRACK_AND_FIELD.IFDL
FORMS$DEMO_WINDOWS_FORM.EXE
FORMS$DEMO_WINDOWS_FORM.IFDL
FORMS$GETSYSINFO_DIBOL.DBL — VAX only
FORMS$SAMPLE_FORM.FORM
FORMS$SAMPLE_FORM.IFDL
FORMS$SAMPLE_PROGRAM.EXE
FORMS$SAMPLE_PROGRAM_API.EXE
FORMS$SAMPLE_PROGRAM_API.FOR
FORMS$SAMPLE_PROGRAM_C.EXE
FORMS$SAMPLE_PROGRAM_C.C
FORMS$SAMPLE_PROGRAM_FORTRAN.EXE
FORMS$SAMPLE_PROGRAM_FORTRAN.FOR
FORMS_CHECKING_COMMON.F

FORMS_CHECKING_GETSYSINFO.F

- Directory SYS$SYSROOT:[SYSHLP.EXAMPLES.FORMS.MESSAGES]

  DECFORMS_MESSAGES.TXT
  FORMS$MSG_BUILD.COM
  FORMS$MSG_RUN_TIME.MSG

- Directory SYS$SYSROOT:[SYSLIB]

  FORMSDEF.H
  FORMS$ADA_DEFINITIONS.ADA
  FORMS$BAS_DEFINITIONS.BAS
  FORMS$BLISS_DEFINITIONS.R32
  FORMS$CIOSHR.EXE
  FORMS$CNVSHR.EXE
  FORMS$COB_DEFINITIONS.LIB
  FORMS$C_DEFINITIONS.H
  FORMS$DBL_DEFINITIONS.DBL — VAX only
  FORMS$FDESHR.EXE
  FORMS$FDE_EDIT.TPU
  FORMS$FDE_SUBPROC.COM
  FORMS$FOR_DEFINITIONS.FOR
  FORMS$FSESHR.EXE
  FORMS$FSTSHR.EXE
  FORMS$MANAGER.EXE
  FORMS$MGRDDIFSHR.EXE
  FORMS$MGRWEBSHR.EXE
  FORMS$MGRXMSHR.EXE
  FORMS$MPESHR.EXE
  FORMS$PAS_DEFINITIONS.PAS
  FORMS$PEDSHR.EXE
  FORMS$PEDVTEXEC.EXE
  FORMS$PLI_DEFINTIONS.PLI
  FORMS$PORTABLE_API.EXE
  FORMS$TRNSHR.EXE
  FORMS$UTLBCKSHR.EXE
  FORMS$UTLEXOSHR.EXE
  FORMS$UTLEXTSHR.EXE
  FORMS$UTLTSTSHR.EXE
  FORMS_DEF.F
  FORMS_DEF.H
  FORMSDEF.F
  FORMSDEF.H

- Directory SYS$SYSROOT:[SYSMSG]

  FORMS$MSGMGRSHR.EXE
  FORMS$MSGMGRSHR_HEBREW.EXE
  FORMS$MSGPRDSHR.EXE

- Directory SYS$SYSROOT:[SYS$STARTUP]

  FORMS$STARTUP.COM
  FORMS_SWO_STARTUP.EXE
  FORMS_SWO_WATCHDOG.EXE

The following list contains the names of and changes to all files modified by the DECforms installation procedure when you install the full development kit:

- SYS$LIBRARY:DCLTABLES.EXE—FORMS DCL command is added.
- SYS$LIBRARY:STARLET.OLB—DECforms object tables are added.
- SYS$LIBRARY:IMAGELIB.OLB—FORMS$MANAGER.EXE is added.
- SYS$LIBRARY:LSE$SYSTEM_ENVIRONMENT.ENV—DECforms LSE support (optional) is added.
- SYS$HELP:HELPLIB.HLB—DECforms Help is added.
- EPC$DATABASE.DIR:EPC$ADMIN_DB.RDB—DECforms is registered in the Oracle TRACE database.

C.2 Files Added and Modified by the Run-Time Kit

The following list contains the names of all files installed on your system when you install the DECforms run-time kit:

- Directory SYS$COMMON:[SYSTEST]

  FORMS$RT_IVP.COM

- Directory SYS$COMMON:[SYSTEST.FORMS]

  FORMS$RT_IVP.EXE

- Directory SYS$SYSROOT:[SYSEXE]

  FORMS_SWO_AGENT.EXE
  FORMS_SWO_SERVER.EXE
  FORMS_SWO_WATCHDOG.EXE

- Directory SYS$SYSROOT:[SYSLIB]

  FORMS$CIOSHR.EXE
  FORMS$MANAGER.EXE

FORMS$MGRXMSHR.EXE
FORMS$MGRDDIFSHR.EXE
FORMS$MGRWEBSHR.EXE
FORMS$PORTABLE_API.EXE

- Directory SYS$SYSROOT:[SYSMSG]

  FORMS$MSGMGRSHR.EXE
  FORMS$MSGMGRSHR_HEBREW.EXE

- Directory SYS$SYSROOT:[SYS$STARTUP]

  FORMS$STARTUP.COM
  FORMS_SWO_STARTUP.COM
  FORMS_SWO_WATCHDOG.COM

- Directory SYS$SYSROOT:[SYSHLP]

  FORMSnnn.RELEASE_NOTES
  FORMSAnnn.RELEASE_NOTES

The following list contains the names of and changes to all files modified by the DECforms installation procedure when you install the run-time kit:

- SYS$LIBRARY:STARLET.OLB—DECforms object tables are added.
- SYS$LIBRARY:IMAGELIB.OLB—FORMS$MANAGER.EXE is added.

C.3 Logical Names Added

When you install DECforms, three logical names are entered into the system logical name table. These names are stored in the DECforms startup file and are entered automatically into the system logical name table whenever the system reboots or whenever you run the software.

The logical names are listed in Table C–1.

Table C–1 Logical Names

Logical	Defined As
FORMS$EXAMPLES	SYS$SYSROOT:[SYSHELP.EXAMPLES.FORMS]
FORMS$MPEUID	DECW$SYSTEM_DEFAULTS:FORMS_MPE_VUIT.UID
FORMS$MPWMD	DECW$SYSTEM_DEFAULTS:FORMS_MPE_DECFORMS.WMD