DECimage Application Services for VMS Installation Guide

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This guide describes how to install the DECimage Application Services product on the VMS operating system.

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Preface

This guide describes how to install the DECimage™ Application Services product on the VMS™ operating system.

Before continuing with this guide, please note the following:

- Keep this guide with your distribution kit. You will need to refer to it again if you reinstall the DECimage Application Services product for any reason.
- The DECimage Application Services product provides both hardcopy and online release notes.

Intended Audience

This guide is for VMS system managers who have experience with installing layered products on VMS systems. In addition, system managers must have experience with the following VMS utilities:

- VMSINSTAL
- SYSGEN
- AUTHORIZE

Document Structure

This guide contains the following chapters and appendixes:

Chapter 1	Describes the required operating system components, prerequisite and optional software, prerequisite hardware, information on the VMS License Management Facility, special requirements for installing DECimage Application Services, and installation procedure requirements.
Chapter 2	Describes general information for installing the DECimage Application Services product, the installation procedure, and error recovery.
Chapter 3	Describes editing the system startup file, special cluster considerations, user account requirements, and determining and reporting problems.
Appendix A	Contains a sample installation of the DECimage Application Services product.
Appendix B	Contains a list of the files created or modified by the installation procedure.

Related Documents

The DECimage Application Services for VMS documentation set contains the following documentation:

- *Release Notes*
- *Installation Guide*
- *Programmer's Overview*
- *Condition Handling Facility Programmer's Reference Manual*
- *Image Input Services Programmer's Reference Manual*
- *Image Input Services Device Reference Manual*
- *Image Services Library Programmer's Reference Manual*
- *Image Display Services Programmer's Reference Manual*
- *X Image Extension Programmer's Reference Manual*
- *Master Index*

For more information on installing VMS layered products, see the VMS installation guide for your processor.

For more information on VMS system management, see the *DECimage Application Services for VMS System Support Addendum*.

For more information on using the License Management Facility, see the *Guide to Setting Up a VMS System* in the VMS System Management documentation set.

For more information on DDIF™, refer to the VMS Compound Architecture (CDA™) manual.

Conventions

The following conventions are used throughout this manual:

Convention	Meaning
UPPERCASE	Uppercase words and letters indicate routine names, symbolic names, image attributes, commands, and acronyms.
italicized text	Text printed in italics indicates title of manuals and emphasis of words.
red ink	Indicates information that you must enter. For online versions, user input is shown in bold.

Chapter 1

Preparing to Install DECimage Application Services for VMS

This chapter discusses the preparations and requirements necessary for installing DECimage Application Services for VMS.

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

DECimage Application Services provides both hardcopy and online release notes. Digital recommends that you read the release notes before proceeding with the installation.

1.1 Required Operating System Components

The DECimage Application Services product requires the VMS operating system, Version 5.4, and the DECnet™ software.

1.2 Prerequisite and Optional Software

This section discusses the software you must have installed on your system before installing DECimage Application Services. This section also describes the optional software you can use with with DECimage Application Services. Please refer to the System Software Addendum (SSA) for a complete list of compatible products and their required version numbers. The SSA is part of the Software Product Description (SPD).

1.2.1 Prerequisite Software

The DECimage Application Services product requires the following VMS layered products:

- VMS DECwindows™ Motif® Version 1.0
- DECnet Phase IV for remote image acquisition

1.2.2 Optional Software

You can use the following optional software with DECimage Application Services:

- DECimage Scan Software
- DECimage Storage Manager
- VAX Ada™
- VAX BASIC™
- VAX BLISS™
- VAX FORTRAN™
- VAX MACRO™
- VAX Pascal™
- VAX PL/I™
- VAX C™

To use DECimage Application Services, you must have access to the compiler for the language in which you are programming.

The SSA contains a complete list of the products that are compatible with this version of DECimage Application Services.

1.3 Prerequisite Hardware

The DECimage Application Services product requires the following hardware:

- A supported VAX™ processor

  For a list of supported VAX processors, see the SSA.

- A workstation running DECwindows software

If you want to attach a scanner to the system on which you install the DECimage Application Services product, you also need the following hardware:

- A Q-bus™ and the LNV21 scanner interface board (if you are using an MD300™ scanner)
- A SCSI-bus and the SCSI scanner class driver (if you are using an MD410™ scanner)

1.4 VMS License Management Facility

The VMS License Management Facility (LMF) is available with Version 5.3 of the VMS operating system.

You must register the DECimage Application Services license through the LMF in accordance with the license agreement signed by your site. The license registration information you need is contained in the Product Authorization Key (PAK) that is shipped with DECimage Application Services. The PAK is a paper certificate that contains information about the license you need to run a particular piece of software.

During the installation, the system asks whether you have registered the DECimage Application Services license and loaded the appropriate authorization key. To run the IVP and use the software, register and load your license for DECimage Application Services *before* you start the installation.

To register a license, first log in to the system manager's account, SYSTEM. Then choose one of the following ways to perform the registration:

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

For complete information on using LMF, see the *Guide to Setting Up a VMS System* in the VMS System Management documentation set.

1.5 Installation Procedure Requirements

This section describes the following requirements for installing DECimage Application Services:

- Installation time
- System privileges
- Disk space
- System parameters
- Account quotas
- VMSINSTAL

1.5.1 Installation Time

The installation takes approximately 20 to 30 minutes, depending on your type of media and your system configuration.

1.5.2 System Privileges

To install DECimage Application Services, you must be logged in to the SYSTEM account or an account that has SETPRV or at least the following privileges:

- CMKRNL
- WORLD
- SYSPRV

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

1.5.3 Disk Space

Installing DECimage Application Services requires a certain amount of free storage disk space during the installation. Once DECimage Application Services is installed, less storage space is required. Table 1–1 summarizes the disk space requirements for DECimage Application Services.

Table 1–1: Disk Space Requirements

Kit	Blocks During Installation	Blocks After Installation
DECimage Application Services (sample images)	20,200	11,500
DECimage Application Services (without sample images)	14,200	5,500

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

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

1.5.4 System Parameters

When installing DECimage Application Services, certain system parameter settings are recommended. Table 1–2 lists the minimum recommended system parameter values for the installation. Depending on the kinds of programs and applications running at your site, you may need higher values for some settings.

Table 1–2: Recommended System Parameter Values

System Parameter	Minimum Value
GBLPAGES[1]	30,000
GBLPAGFIL	6024
GBLSECTS[1]	450
RESHASHTBL	512
SPTREQ	Increase the current value by 7304
SRPCOUNTV	3696
VIRTUALPAGECNT	40,000
WSMAX	18,000

[1]The values listed for these system parameters represent the number of free global pages and global sections recommended for the installation, not the total number you need to run your system and other software. (See Section 1.5.4.2.)

NOTE

The minimum setting for the page file quota is 40,000. When you are setting this quota, do not use a value that exceeds the amount of page file space available on the system.

1.5.4.1 Checking System Parameter Values

To check the values of your system parameters, enter the following command at the DCL prompt to invoke the System Generation Utility:

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

At the SYSGEN> prompt, enter the SHOW command to display the value of a system parameter. The values displayed should equal or exceed the value of each parameter listed in Table 1–2. The following command displays the value for the WSMAX system parameter:

```
SYSGEN>  SHOW WSMAX
```

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

1.5.4.2 Calculating the Values for GBLPAGES and GBLSECTS

To install and run DECimage Application Services, it is recommended that you have sufficient free global pages and global sections. To find out how many free global pages and global sections you have on your system, use the WRITE command with the F$GETSYI lexical function. The following example shows how to get this information at your terminal (the default for SYS$OUTPUT):

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

If the values displayed by the system are greater than the values in Table 1–2, you do not need to increase the values for these parameters. If the value of free global pages or global sections is less than the value in Table 1–2, it is recommended that you change the system parameter setting using the AUTOGEN command procedure.

1.5.4.3 Changing System Parameter Values with AUTOGEN

Use the AUTOGEN command procedure to change system parameters. AUTOGEN automatically adjusts values for parameters that are associated with the values you set manually. To change system parameters with AUTOGEN, you must edit the following file:

```
SYS$SYSTEM:MODPARAMS.DAT
```

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

It is recommended that you include the minimum values for the system parameters in the MODPARAMS.DAT file. To specify the minimum values, use MIN_. The following example sets a minimum value of 18,000 for the WSMAX parameter.

```
MIN_WSMAX = 18000
```

To modify incremental parameters such as GBLPAGES and GBLSECTS, use ADD_. The following example increases the global page setting by 2,000:

```
ADD_GBLPAGES = 2000
```

When you modify a system parameter using ADD_, the parameter value increases each time the AUTOGEN procedure is executed. To avoid this accumulation, you must delete the parameter from the MODPARAMS.DAT file after AUTOGEN has executed.

After you make all your changes, exit from the editor and execute the AUTOGEN procedure using the following command line:

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

Next, you must check the SYS$SYSTEM:AGEN$PARAMS.REPORT file to verify that AUTOGEN calculated your system parameter values correctly. If there are no errors, enter the following command line at the DCL prompt:

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

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

The AUTOGEN Utility automatically adjusts some of the SYSGEN parameters based on the consumption of resources since the last reboot. 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 VMS System Management documentation set.

1.5.4.4 Setting Dynamic System Parameter Values

Use the System Generation Utility (SYSGEN) to set dynamic parameters. Dynamic parameters changed with the SYSGEN WRITE CURRENT command become active immediately without rebooting your system. In fact, rebooting returns dynamic system parameter values to their previous settings.

Once you change dynamic parameter values, you can complete the installation before rebooting the system. After you finish with the installation, you can reset the dynamic parameters to their previous values or let them reset automatically the next time you reboot your system.

To change the dynamic parameter values on your system, use the following series of commands. This example changes the CLISYMTBL value to 250.

```
$  RUN SYS$SYSTEM:SYSGEN
SYSGEN>  USE CURRENT
SYSGEN>  SET CLISYMTBL 250
SYSGEN>  WRITE CURRENT
SYSGEN>  EXIT
```

For more information on SYSGEN, refer to the SYSGEN Utility manual in the VMS System Management documentation set.

1.5.5 Process Account Quotas for the Installing Account

The account you use to install DECimage Application Services must have sufficient quotas to enable you to perform the installation. Table 1–3 summarizes the process quotas recommended for the installing account.

Table 1–3: Process Account Quotas for the Installing Account

Account Quota	Value
ASTLM	24
BIOLM	18
BYTLM	18,000

(continued on next page)

Table 1–3 (Cont.): Process Account Quotas for the Installing Account

Account Quota	Value
DIOLM	18
ENQLM	30
FILLM	20
WSDEF	300[1]

[1]The values for WSEXTENT and WSQUO (see Table 3–1) must be equal to or greater than the WSDEF value.

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

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

At the Authorize Utility 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=NNN

The following example changes the FILLM quota for the SMITH account and then exits from the Authorize Utility.

```
UAF>  MODIFY SMITH/FILLM=50
UAF>  EXIT
```

After you exit from the Authorize Utility, the VMS system displays messages indicating whether or not changes were made. Once the changes have been made, the owner of the altered account must log out and then log in again for the new quotas to take effect.

For more information on modifying account quotas, see the description of the Authorize Utility in the VMS System Management documentation.

1.5.6 VMSINSTAL Requirements

When you invoke VMSINSTAL, it checks the following:

- Whether you have set your default device and directory to SYS$UPDATE
- Whether you are logged in to a privileged account
- Whether the DECnet software is running
- Whether any users are logged in to the system
- Whether you have adequate quotas for installation

Refer to Table 1–3 for a list of the minimum account quotas recommended for VMSINSTAL.

If VMSINSTAL detects any problems during the installation, it notifies you and asks if you want to continue the installation. You can type Y for Yes to continue. To stop the installation process and correct the situation, type N for No, or press the Return key. Then correct the problem and restart the installation.

1.5.7 Backing Up Your System Disk

At the beginning of the installation, VMSINSTAL asks if you have backed up your system disk. Digital recommends that you do a system disk backup before installing any software.

Use the backup procedures that have been established at your site. For details on performing a system disk backup, see the section on the Backup Utility in the VMS System Management documentation.

Chapter 2

Installing DECimage Application Services for VMS

This chapter describes the tasks required to install DECimage Application Services for VMS. These tasks include the following:

- Accessing online release notes
- Determining the files added to your system
- Running the Installation Verification Procedure (IVP)
- Aborting the installation

This chapter also contains a step-by-step description of the installation procedure, and explains error recovery procedures.

2.1 Accessing the Online Release Notes

DECimage Application Services provides online release notes. You must specify OPTIONS N when you invoke VMSINSTAL to see the question about online release notes. This option is displayed near the beginning of the installation.

Review the release notes in case they contain any information about changes in the installation procedure. If you are starting the installation over and have already reviewed the release notes, you do not need to specify OPTIONS N.

Once DECimage Application Services has been installed, the release notes are located in the following file:

```
SYS$HELP:IMG$030.RELEASE_NOTES
```

Online help also directs you to the release notes file. After the installation, you can enter the following command to review the release notes through the Help facility:

```
$  HELP IMAGE RELEASE_NOTES
```

2.2 Determining the Files Added to the System

The DECimage Application Services installation procedure installs a number of files. For a complete list of these files, see Appendix B.

2.3 Running the Installation Verification Procedure (IVP)

The Installation Verification Procedure (IVP) verifies the installation. The IVP performs the following steps:

1. Compiles and links sample programs in VAX C, VAX BASIC, and VAX FORTRAN. For each language compiler that is not installed on your system, the IVP links a precompiled sample program distributed with the installation kit. For example, if your system has the VAX C compiler, but not the VAX BASIC or VAX FORTRAN compilers, the IVP compiles and links the VAX C source program, and links the VAX BASIC and VAX FORTRAN object files distributed on the kit.
2. Renders a sample image for display on workstation using the DCL IMAGE component of DECimage Application Services.

During the installation, you are asked if you want to run the IVP as part of the installation. If you respond Yes, VMSINSTAL runs the IVP. Digital recommends that you run the IVP to be sure that DECimage Application Services is installed correctly.

After DECimage Application Services is installed, you can run the IVP independently to verify that the software is available on your system. You can also run the IVP after a system failure to be sure that users can access DECimage Application Services.

To run the IVP after installation, type the following command at the DCL prompt:

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

2.4 Aborting the Installation

To abort the installation procedure at any time, press Ctrl/Y. When you abort the installation procedure, it does not delete files created up to that point. You must delete these files interactively. (See Appendix B for a list of files and directories created during the installation procedure.)

2.5 Installation Procedure

The DECimage Application Services installation process consists of a series of questions and informational messages. The following sections explain how to respond to these questions and messages. These sections also describe how to run the IVP and complete the installation procedure. See Appendix A for a sample installation.

2.5.1 Invoking VMSINSTAL

To start the installation, invoke the VMSINSTAL command procedure from a privileged account, such as the SYSTEM account. VMSINSTAL is in the SYS$UPDATE directory. Use the following syntax to invoke VMSINSTAL:

@SYS$UPDATE:VMSINSTAL saveset-name device-name OPTIONS N

The following information defines the elements of the VMSINSTAL command procedure:

saveset-name

The installation name for the component. For DECimage Application Services, use the following installation name:

```
IMG030
```

device-name

The name of the device on which you plan to mount the media. For example, MUA0: is the device name for a TK50 tape drive. It is not necessary to use the console drive for this installation. However, if you do use the console drive, you should replace any media you removed once the installation is complete.

OPTIONS N

An optional parameter that indicates you want to see the release notes question. If you do not include the OPTIONS N parameter, VMSINSTAL does not ask you about the release notes. You can 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.

Note that there are several other options you can select when you invoke VMSINSTAL.

- Auto answer option (A): Creates a file that contains your answers to VMSINSTAL questions and prompts. You can then use the option (and the answer file) to save time during a reinstallation (usually after upgrading your system).
- Get save set option (G): Lets you store product save sets temporarily on a magnetic tape or in a disk directory.
- File log option (L): Logs all activity to the terminal during installation.
- Alternate root option (R): Lets you install the product to a system root other than that of the running system.

See the VMS documentation on software installation in the VMS System Management documentation for information on these options. If you specify more than one option, separate the options with commas (OPTIONS A,N).

The following example displays the command to invoke VMSINSTAL to install DECimage Application Services from tape drive MUA0: and shows the system response. This example uses the OPTIONS N release note parameter.

```
$  @SYS$UPDATE:VMSINSTAL IMG030  MUA0: OPTIONS N

      VAX/VMS Software Product Installation Procedure V5.4


It is 26-NOV-1990 at 05:22
Enter a question mark (?) at any time for help.
```

If you do not supply either the product name or the device name, VMSINSTAL prompts you for this information later on in the installation procedure. VMSINSTAL does not prompt you for any options, so be sure to include OPTIONS N on the VMSINSTAL command line to access the release notes during the installation.

2.5.2 Installation Questions

This section discusses the questions that appear during the installation. Each question in the installation is marked with an asterisk (*) at the beginning of the line. Some questions show the default response in brackets, for example [YES]. If you want to use the default response, press the Return key.

For an example of how to answer these questions, see the sample installation procedure in Appendix A.

1. **Verifying DECnet status**

   VMSINSTAL notifies you if the DECnet software is running and displays a list of all active processes. It then asks if you want to continue the installation. You should install DECimage Application Services on a standalone system or cluster with DECnet shut down. The default response to the question is No.

```
%VMSINSTAL-W-DECNET, Your DECnet network is up and running.
    .
    .
    .
* Do you want to continue anyway [NO]?
```

2. **System backup**

   VMSINSTAL asks if you are satisfied with your system backup:

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

   You should always back up your system disk before performing an installation. If you are satisfied with the backup of your system disk, press the Return key. Otherwise, type No to discontinue the installation. After you back up your system disk, you can restart the installation.

3. **Mounting the media**

   VMS will ask you for the intended location for the distribution volumes:

```
* Where will the distribution volumes be mounted: MUA0:

Enter the products to be processed from the first distribution
volume set.
* Products: IMG030
Enter installation options you wish to use [NONE]:
```

   You should now mount the first distribution volume on the device you specified when you invoked VMSINSTAL. The device name appears in the line preceding the question. VMSINSTAL then asks you if you are ready to continue with the installation, as shown in the following example:

```
Please mount the first volume of the set on MUA0:.
* Are you ready?  YES
%MOUNT-I-MOUNTED, IMG MOUNTED ON _$$MUA0:
The following products will be processed:
  IMG V3.0

    Beginning installation of IMG V3.0 at 05:23

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

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

   If you entered the wrong device name when you invoked VMSINSTAL and need to restart the installation, type No in response to the question, ‘‘Are you ready?’’. To abort the installation for other reasons, press Ctrl/Y.

4. **Mounting additional media volumes**

   If your installation kit contains more than one volume, VMSINSTAL prompts you to insert the additional volumes and then asks you to indicate that you are ready for the installation to proceed, for example:

```
%BACKUP-I-READYREAD, mount volume 2 on _MUA0: for reading

Enter "YES" when ready:
```

5. **Selecting the release notes option**

   If you specified OPTIONS N when you invoked VMSINSTAL, you are now asked to choose one of the four options for reviewing the release notes.

```
Release Notes Options:

 1.  Display release notes
 2.  Print release notes
 3.  Both 1 and 2
 4.  Copy release notes to SYS$HELP

* Select option [2]:
```

   If you select option 1, VMSINSTAL displays the release notes immediately on the console terminal. You can terminate the display at any time by pressing Ctrl/C.

   If you select option 2, VMSINSTAL prompts you for the name of the print queue that you want to use, for example:

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

   You can press the Return key to send the file to the default output print device or you can enter another queue name.

   If you select option 3, VMSINSTAL displays the release notes immediately on the console terminal and then prompts you for a queue name for the printed version.

   Select option 4 if you have already reviewed the release notes and are restarting the installation.

   Note that hardcopy release notes are included with the documentation set for DECimage Application Services.

6. **Continuing the installation**

   The installation procedure now asks if you want to continue the installation. To continue, type Yes. Otherwise, press the Return key. In either case, the release notes are copied to a file in the SYS$HELP directory. For example:

```
* Do you want to continue the installation [N]?:  YES
%VMSINSTAL-I-RELMOVED, The product's release notes have been
successfully moved to SYS$HELP.
```

   The release notes are located in the following file:

```
SYS$HELP:IMG$030.RELEASE_NOTES
```

NOTE

The name of the release notes file installed by VMSINSTAL consists of the current product name and version number. Do not delete release notes for previous versions of DECimage Application Services.

7. **Choosing to purge files**

   You have the option to purge files from previous versions of DECimage Application Services that are superseded by this installation. Purging is recommended; however, if you need to keep files from the previous version, type No in response to the question.

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

8. **Running the Installation Verification Procedure (IVP)**

   The installation procedure now asks if you want to run the IVP. The IVP checks to be sure that the installation is successful. It is recommended that you run the IVP.

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

9. **Installing sample images**

   The installation procedure indicates the number of sample images and their space requirements, and asks if you want these sample images installed. You will need an extra 6,000 blocks to install all the sample images.

```
* Would you like sample images installed [YES]?
```

10. **Responding to license registration queries**

    The installation procedure displays license information about your product and then asks if you have registered and loaded your authorization key for DECimage Application Services. For example:

```
Product:       IMAGE-SERVICES
Producer:      DEC
Version:       V3.0
Release Date:  1-JUL-1991

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

    If you have not registered and loaded your authorization key, you must answer No to this question. (A No answer continues the installation, but does not run the IVP.) You have to register and load your product authorization key to run the IVP. If you have not done so and you answered Yes to running the IVP, then you should stop the installation with Ctrl/Y. Next, you must register and load your product authorization key, and then restart the installation.

2.5.3 Informational Messages

At this point, the installation procedure displays a number of informational messages that report on the progress of the installation. (Refer to the sample installation in Appendix A). There are no further questions. If the installation procedure has been successful up to this point, VMSINSTAL begins moving files to their target directories.

After VMSINSTAL restores saveset C, it displays a warning message. This warning occurs because of the linking of the scanner driver, and is a normal part of the installation procedure. If you are using the MD300 scanner, the LDDriver is linked and the following warning message is displayed:

```
Linking LDDRIVER

NOTE: The following warning message is expected for the LDDRIVER:
     "LINK-W-USRTFR, image VMI$ROOT:[SYSUPD.IMG030]LDDRIVER.EXE
      has no user transfer address"

%LINK-W-USRTFR, image VMI$ROOT:[SYSUPD.IMG030]LDDRIVER.EXE;1 has no
     user transfer address
```

If you are using the MD410 scanner, the LKDriver is linked and the following message is displayed:

```
Linking LKDRIVER

NOTE: The following warning message is expected for the LKDRIVER:
     "LINK-W-USRTFR, image VMI$ROOT:[SYSUPD.IMG030]LKDRIVER.EXE
      has no user transfer address"

%LINK-W-USRTFR, image VMI$ROOT:[SYSUPD.IMG030]LKDRIVER.EXE;1 has no
     user transfer address
```

VMSINSTAL continues to move files to their target directories, updates the help files, and updates DCL tables, if necessary. If you asked for files to be purged, that work is done now. The following message is displayed:

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

If your system parameters and quotas must be increased, VMSINSTAL displays the following message:

```
Prior to running IIS, system parameters and quotas may have to
be adjusted.  The following are minimums for selected system
parameters:

                    WSMAX = 18000
                    VIRTUALPAGECNT = 40000

Also, the size of the page file should be at least 40,000 and
the system parameter SPTREQ should be increased by 7,304.  The
recommended way to do this is to use AUTOGEN.  Refer to the
installation guide for details on how to do this.

The account that you run IIS from should have the following
quotas as a minimum:

                     WSQUO = 18000
                     WSEXTENT = 18000
                     PGFLQUO = 40000

Refer to the installation guide for details on how to do this.
```

2.5.4 Running the Installation Verification Procedure

If you chose to run the IVP, VMSINSTAL runs it now. When the IVP runs successfully, you see the following display:

```
DECimage Application Services V3.0
Installation Verification Procedure completed successfully
```

2.5.5 Completing the Installation Procedure

The following message indicates that the entire installation procedure is complete:

```
Installation of DECimage Application Services V3.0 completed at 10:55

VMSINSTAL procedure done at 10:55
```

You can now log out of the privileged account:

```
$  LOGOUT
SYSTEM     logged out at 26-NOV-1990 10:56:22.01
```

Note that VMSINSTAL deletes or changes entries in the process symbol tables during the installation. Therefore, if you are going to continue using the system manager's account and you want to restore these symbols, you should log out and log in again.

2.6 Error Recovery

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

```
%VMSINSTAL-E-INSFAIL, The installation of DECimage Application
                                        Services V3.0 has failed.
```

If the IVP fails, you see these messages:

```
The DECimage Application Services V3.0 Installation Verification
                                                  Procedure failed.

%VMSINSTAL-E-IVPFAIL, The IVP for DECimage Application Services V3.0
                                                               has failed.
```

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

- The operating system version is incorrect
- A prerequisite software version is incorrect
- Quotas necessary for successful installation are insufficient
- System parameter values for successful installation are insufficient
- The VMS help library is currently in use
- The product license has not been registered and loaded

For descriptions of the error messages generated by these conditions, see the VMS documentation on system messages, recovery procedures, and VMS software installation. If you are notified that any of these conditions exist, you should 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.

Chapter 3

After Installing DECimage Application Services for VMS

This chapter explains the tasks you must perform after installing DECimage Application Services for VMS. These tasks include the following:

- Defining a logical for the portable C bindings
- Editing the system files
- Running the IVP after the installation
- Setting user account quotas
- Reporting problems

3.1 Defining a Logical for the Portable C Bindings

You must define a logical called IMG$INCLUDE. This logical will point to SYS$SYSROOT:[IMG$INCLUDE]. This is the location where the portable "C" Bindings for DECimage Application Services are kept (IdsImage.h, XieAppl.h, ImgDef.h, and so on).

This must be done before going any further with this installation procedure.

3.2 Editing the System Files

You must edit the system startup and shutdown files to provide for automatic startup of the Image Input Services (IIS) Server when your system is rebooted.

Add the command line that starts DECimage Application Services to the VMS system startup file: SYS$MANAGER:SYSTARTUP_V5.COM. DECimage Application Services cannot start until after the network has started. You must position this new command line *after* the line that invokes the network startup command procedure. The following example shows the network startup command line followed by the startup command line for DECimage Application Services:

```
$  @SYS$MANAGER:STARTNET.COM
      .
      .
      .
$  @SYS$STARTUP:IIS$SERVER_STARTUP.COM
```

The installation deletes the obsolete files SYS$STARTUP:VIS$STARTUP.COM and SYS$STARTUP:IMG$STARTUP.COM. These files should also be removed from SYS$STARTUP_V5.COM.

If you are using an MD410 scanner that is not connected to the standard port (LKb0:), you must edit the SYS$STARTUP:IIS$SERVER_STARTUP.COM file using the following command line:

```
$  MCR SYSGEN CONNECT LKbn00:/NOADAPTER
```

In the preceding command line, the LKbn00 field represents a port identifier. The following list explains what the letters and numbers of the port identifier mean:

LK = the scanner driver
b = the bus identifier
n = the SCSI port identifier set on the DIP switches
00 = the logical unit number, which is always zero

To learn how to verify the port indentifier and list the input devices connected to your system, refer to your workstation owner's manual. One of the devices connected to your system should be the SCSI port, in which your MD410 scanner is attached. If the port identifier for your scanner is incorrect, you must edit the LKbn00 field of the command line.

Before you can use IIS, the IIS server component must be installed and running. The IIS server is an imaging application that is included and installed with the DECimage Application Services for VMS product. To run the server, enter the following command procedure from the system account:

```
$  @SYS$STARTUP:IIS$SERVER_STARTUP.COM
```

3.3 Running the IVP After Installation

The Installation Verification Procedure (IVP) verifies the installation.

It compiles and links sample programs in VAX C, VAX BASIC, and VAX FORTRAN. For each language compiler that is not installed on your system, the IVP links a precompiled sample program that was distributed with the installation kit. For example, if your system has the VAX C compiler, but not the VAX BASIC or VAX FORTRAN compilers, the IVP compiles and links the VAX C source program, and links the VAX BASIC and VAX FORTRAN object files distributed on the kit.

The IVP then renders a sample image for display on the workstation using the DECimage Application Services software.

After DECimage Application Services is installed, you can run the IVP independently to verify that the software is available on your system. You might also want to run the IVP after a system failure to be sure that users can access DECimage Application Services.

To run the IVP after installation, type the following command at the DCL prompt:

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

3.4 Setting User Account Requirements

To work with DECimage Application Services, user accounts on your system must have certain privileges and quotas. The following two sections contain information on these requirements.

3.4.1 Privileges

Each account must have at least the following privileges:

- TMPMBX (for the IIS Server, and for remote scanning)
- NETMBX (for the IIS Server, and for remote scanning)
- SYSNAM (for the IIS Server)

3.4.2 Quotas

You must make sure that the appropriate user accounts have sufficient quotas to be able to use DECimage Application Services. Table 3–1 summarizes the required user account quotas.

Table 3–1: User Account Quotas for DECimage Application Services

Account Quota	Value
PGFLQUO	40,000
WSDEF	512[1]
WSQUO	18,000[1]
WSEXTENT	18,000[1] or greater

[1]The values for WSEXTENT and WSQUO must be equal to or greater than the WSDEF value.

If you are scanning documents in gray scale mode with a higher resolution than 300 dpi (dots per inch) and larger than 8.5 x 11 inches, you must increase the setting for the WSQUO, WSEXTENT, and PGFLQUO account parameters. These parameters can be found in the RUN statement of the SYS$STARTUP:IIS$SERVER_STARTUP.COM system file.

In addition, you must modify the user account quotas that the client runs under. User account quotas are stored in the file SYSUAF.DAT. You use the VMS Authorize Utility to verify and change user account quotas. First set your directory to SYS$SYSTEM and then run AUTHORIZE as follows:

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

At the Authorize Utility prompt (UAF>), enter the SHOW command with an account name to check that particular account, for example:

```
UAF>  SHOW SMITH
```

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

MODIFY account-name /quota-name=NNN

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

```
UAF>  MODIFY SMITH /WSQUO=18000
UAF>  EXIT
```

After you exit from the Authorize Utility, the VMS 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 on modifying account quotas, see the description of the Authorize Utility in the VMS documentation set.

3.5 Determining and Reporting Problems

If an error occurs while DECimage Application Services is being used and you believe the error is caused by a problem with DECimage Application Services, do one of the following:

- Call Digital if your software contract or warranty agreement entitles you to telephone support.
- Submit a Software Performance Report (SPR).
- If you purchased DECimage Application Services within the past 90 days and you think the problem is caused by a software error, you can submit an SPR.
- If you find an error in the DECimage Application Services documentation, fill out and submit the Reader's Comments form. The forms are at the back of each hardcopy manual. Be sure to use the form from the document in which you found the error. Also, please include the section and page number.

Appendix A

Sample Installation

This appendix contains a sample installation of DECimage Application Services.

The sample installation assumes that DECnet software has been shut down, that no users are logged in to your system, and that OPTIONS N is specified. The Installation Verification Procedure (IVP) runs at the end of the installation.

```
Username: SYSTEM
Password:

$  @vmsinstal img030 USERE$:[V3MASD_KITS.VIS.KIT.SAVESETS]

 VAX/VMS Software Product Installation Procedure V5.4

It is 30-APR-1991 at 16:04.

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

%VMSINSTAL-W-ACTIVE, The following processes are still active:
 Dave - FTA14:
 Dave - FTA15:
 DECW$FD
 DECW$TE_02FB
* Do you want to continue anyway [NO]?  y
* Are you satisfied with the backup of your system disk [YES]?  Yes

The following products will be processed:

  IMG V3.0

   Beginning installation of IMG V3.0 at 16:04

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

      *** DECimage Application Services V3.0-0 ***
             Installation Procedure Beginning.

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

                              NOTE:
  This IVP requires that all development include files be installed
  on the system before the IVP begins.  An example of this is
  that if the "C" language is installed, and the RMS include
  files are not installed (as this is an install option in "VAX C").
  Another would be a lack of DECwindows development include files
  for the various languages that the IVP is written in (C, BASIC,)
  and FORTRAN)

 This kit contains an Installation Verification Procedure.

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

 This kit contains 11 sample images which require an additional 7000
 blocks. This system currently has the necessary space available for
 installation of the images. The files would be placed in
 SYS$COMMON:[SYSHLP.EXAMPLES.IMAGES].
```

```
* Would you like sample images installed [YES]?

        Product:      IMAGE-SERVICES
        Producer:     DEC
        Version:      V3.0
        Release Date: 1-JUL-1991

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

  In order to properly utilize an MD300 scanner, please modify
  (using AUTHORIZE) all user accounts which will use the scanner to
  the following MINIMUM quotas:

                 WSDEFAULT >= 512
                 WSQUOTA   >= 1024
                 WSEXTENT  >= 3072

  The DECimage Application Services Installation Verification
  Procedure (IVP) has been provided in SYS$SYSROOT:[SYSTEST].

$ SET DEFAULT SYS$SYSROOT:[SYSTEST]
$ @IMG$IVP

 You have answered all the questions required for this installation.
 The installation will now continue for about one (1) hour without
 further intervention, depending on your system's configuration, the
 installation media, and the options you have selected.

 Please define a logical "IMG$INCLUDE" to point to
 SYS$SYSROOT:[IMG$INCLUDE]. This is where the portable "C" Bindings for
 DECimage Application Services are kept (ie:IdsImage.h, XieAppl.h,)
 ImgDef.h ...etc.

  Copying IMG help file to SYS$HELP

%VMSINSTAL-I-RESTORE, Restoring product save set B ...
 Now we will link a new DAS V2 to V3 Image Conversion program.
 It will allow a user to take V2 images and make them into the
 new DAS V3 Standard format.  This will work on DDIF document
 files.  See the DAS documentation for more information.

Linking IMG$STANDARDIZE_FILE.EXE
%VMSINSTAL-I-RESTORE, Restoring product save set C ...
Linking LDDRIVER

NOTE: The following warning message is expected for the LDDRIVER:
      "LINK-W-USRTFR, image  VMI$ROOT:[SYSUPD.IMG030]LDDRIVER.EXE
      has no user transfer address"

%LINK-W-USRTFR, image $77$DIA0:[SYS0.SYSUPD.IMG030]LDDRIVER.EXE;1 has
no user transfer address
Linking LKDRIVER

NOTE: The following warning message is expected for the LKDRIVER:
      "LINK-W-USRTFR, image  VMI$ROOT:[SYSUPD.IMG030]LKDRIVER.EXE
      has no user transfer address"

%LINK-W-USRTFR, image $77$DIA0:[SYS0.SYSUPD.IMG030]LKDRIVER.EXE;1 has
no user transfer address
Linking IIS Remote Server

Providing IIS specific files

Prior to running IIS, system parameters and quotas may have to be
adjusted. The following are minimums for selected system parameters:

                     WSMAX = 18000
                     VIRTUALPAGECNT = 40000

Also, the size of the page file should be at least 40000 and the
the system parameter SPTREQ should be increased by 7304. The
recommended way to do this is to use AUTOGEN. Refer to the
Installation Guide for details on how to do this.
```

```
The account that you run IIS from should have the following quotas
as a minimum:

                WSQUO = 18000
                WSEXTENT = 18000
                PGFLQUO = 40000

 Refer to the Installation Guide for details on how to do this.

%VMSINSTAL-I-RESTORE, Restoring product save set D ...
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
VMI$ROOT:[SYSHLP.EXAMPLES.IDS].
%CREATE-I-EXISTS, VMI$ROOT:[SYSHLP.EXAMPLES.IDS] already exists
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
VMI$ROOT:[IMG$INCLUDE].
%CREATE-I-EXISTS, VMI$ROOT:[IMG$INCLUDE] already exists
%VMSINSTAL-I-RESTORE, Restoring product save set E ...
 Providing DCL IMAGE command
 Installing help library.
 Linking DCL IMAGE object files
 Copying example images to [SYSHLP.EXAMPLES.IMAGES]
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
VMI$ROOT:[SYSTEST.IMG].
%CREATE-I-EXISTS, VMI$ROOT:[SYSTEST.IMG] already exists

 In order to start up the scanner server when your system boots,
 you should add the following line to SYS$MANAGER:SYSTARTUP_V5.COM:

            $ @SYS$STARTUP:IIS$SERVER_STARTUP.COM

 You can also start the scanner server manually outside of system boot
 process by entering the above command from your System Manager's
 account.

 NOTE: If you have a version of VAXimage Scanning Application or
 VAXimage Application Services on this system, then the IMG$STARTUP.COM
 and/or  VIS$STARTUP.COM files will be deleted from sys$startup during
 this  installation.  Please delete the lines in your
 SYS$MANAGER:SYSTARTUP_V5.COM that reference these obsolete files.

 The release notes are available online by typing

           TYPE SYS$HELP:IMG$030.RELEASE_NOTES

There also is additional documentation by typing
           HELP DECIMAGE

*** DECimage Application Services V3.0-0 ***
              Provide Files Complete.

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

 Beginning the DECimage Application Services V3.0-0
       Installation Verification Procedure.

Verifying that all files were provided successfully

                            DEC

Using VAX C to compile IVP$TEST_C.C
                            DEC
Using VAX FORTRAN to compile IVP$TEST_FOR.FOR
Using IMAGE RENDER to test DCL IMAGE

     DECimage Application Services V3.0-0 Installation Verification
                 Procedure completed successfully.

 Installation of IMG V3.0 completed at 16:17

 VMSINSTAL procedure done at 16:17

$ LOGOUT
SYSTEM       logged out at 30-APR-1991 16:17:50.70
```

Appendix B

Files Installed on Your System

The DECimage Application Services installation procedure installs a number of files on your system. The following list contains the names of all files installed on your system when DECimage Application Services is installed.

IIS Files

SYS$SYSROOT:[SYS$LIB]IIS$DEF.H
SYS$SYSROOT:[SYS$LIB]IIS$DEF.BAS
SYS$SYSROOT:[SYS$LIB]IIS$DEF.FOR
SYS$SYSROOT:[SYS$LIB]IIS$DEF.MAR
SYS$SYSROOT:[SYS$LIB]IIS$DEF.R32
SYS$SYSROOT:[SYS$LIB]IIS$DEF.ADA
SYS$SYSROOT:[SYS$LIB]IIS$DEF.PAS
SYS$SYSROOT:[SYS$LIB]IIS$DEF.PLI
SYS$SYSROOT:[SYS$LIB]IIS$ENTRY.H
SYS$SYSROOT:[SYS$LIB]IIS$ENTRY.R32
SYS$SYSROOT:[SYS$LIB]IIS$ENTRY.ADA
SYS$SYSROOT:[SYS$LIB]IIS$ENTRY.PLI
SYS$SYSROOT:[SYS$LIB]IIS$ENTRY.PAS
SYS$SYSROOT:[SYS$LIB]IIS$ENTRY.BAS
SYS$SYSROOT:[SYS$LIB]IIS$ENTRY.FOR
SYS$SYSROOT:[SYS$LIB]IIS$ENTRY.MAR
SYS$SYSROOT:[SYS$LIB]IIS$STATUS_CODES.MSG
SYS$SYSROOT:[SYS$LIB]IIS$STATUS_CODES.H
SYS$SYSROOT:[SYS$LIB]IIS$STATUS_CODES.FOR
SYS$SYSROOT:[SYS$LIB]IIS$STATUS_CODES.BAS
SYS$SYSROOT:[SYS$LIB]IIS$STATUS_CODES.MAR
SYS$SYSROOT:[SYS$LIB]IIS$STATUS_CODES.R32
SYS$SYSROOT:[SYS$LIB]IIS$STATUS_CODES.ADA
SYS$SYSROOT:[SYS$LIB]IIS$STATUS_CODES.PLI
SYS$SYSROOT:[SYS$LIB]IIS$STATUS_CODES.PAS
SYS$SYSROOT:[SYS$LIB]IIS$OBJLIB.OLB
SYS$SYSROOT:[IMG$INCLUDE]IISSTATUSCODES.H
SYS$SYSROOT:[IMG$INCLUDE]IISDEF.H
SYS$SYSROOT:[IMG$INCLUDE]IISENTRY.H
SYS$SYSROOT:[SYSHLP.EXAMPLES.IIS]IIS$EXAMPLE_C.C
SYS$SYSROOT:[SYSHLP.EXAMPLES.IIS]IIS$EXAMPLE_BASIC.BAS
SYS$SYSROOT:[SYSHLP.EXAMPLES.IIS]IIS$EXAMPLE_FORTRAN.FOR
SYS$SYSROOT:[SYSHLP.EXAMPLES.IIS]IIS$EXAMPLE_OPTION.OPT
SYS$SYSROOT:[SYSHLP.EXAMPLES.IIS]IIS$EXAMPLE_MIT_C.C
SYS$SYSROOT:[SYSHLP.EXAMPLES.IIS]IIS$EXAMPLES.COM

IMG Files

SYS$SYSROOT:[SYS$LIB]IMG$DEF.ADA
SYS$SYSROOT:[SYS$LIB]IMG$DEF.BAS
SYS$SYSROOT:[SYS$LIB]IMG$DEF.FOR
SYS$SYSROOT:[SYS$LIB]IMG$DEF.H
SYS$SYSROOT:[SYS$LIB]IMG$DEF.MAR
SYS$SYSROOT:[SYS$LIB]IMG$DEF.PAS
SYS$SYSROOT:[SYS$LIB]IMG$DEF.PLI
SYS$SYSROOT:[SYS$LIB]IMG$DEF.R32
SYS$SYSROOT:[IMG$INCLUDE]IMGENTRY.H
SYS$SYSROOT:[IMG$INCLUDE]IMGDEF.H
SYS$SYSROOT:[IMG$INCLUDE]IMGSTATUSCODES.H
SYS$SYSROOT:[SYS$LIB]IMG$ENTRY.ADA
SYS$SYSROOT:[SYS$LIB]IMG$ENTRY.BAS
SYS$SYSROOT:[SYS$LIB]IMG$ENTRY.FOR
SYS$SYSROOT:[SYS$LIB]IMG$ENTRY.H
SYS$SYSROOT:[SYS$LIB]IMG$ENTRY.MAR
SYS$SYSROOT:[SYS$LIB]IMG$ENTRY.PAS
SYS$SYSROOT:[SYS$LIB]IMG$ENTRY.PLI
SYS$SYSROOT:[SYS$LIB]IMG$ENTRY.R32
SYS$SYSROOT:[SYS$LIB]IMG$STATUS_CODES.ADA
SYS$SYSROOT:[SYS$LIB]IMG$STATUS_CODES.BAS
SYS$SYSROOT:[SYS$LIB]IMG$STATUS_CODES.FOR
SYS$SYSROOT:[SYS$LIB]IMG$STATUS_CODES.H
SYS$SYSROOT:[SYS$LIB]IMG$STATUS_CODES.MAR
SYS$SYSROOT:[SYS$LIB]IMG$STATUS_CODES.PAS
SYS$SYSROOT:[SYS$LIB]IMG$STATUS_CODES.PLI
SYS$SYSROOT:[SYS$LIB]IMG$STATUS_CODES.R32
SYS$SYSROOT:[SYSHLP.EXAMPLES.IMG]IMG$COMMAND_UTILITY.CLD
SYS$SYSROOT:[SYSHLP.EXAMPLES.IMG]IMG$EXAMPLES.COM
SYS$SYSROOT:[SYSHLP.EXAMPLES.IMG]IMG$COMMAND_UTILITY_C.C
SYS$SYSROOT:[SYSHLP.EXAMPLES.IMG]IMG$COMMAND_UTILITY_
BAS.BAS
SYS$SYSROOT:[SYSHLP.EXAMPLES.IMG]IMG$COMMAND_UTILITY_
FOR.FOR
SYS$SYSROOT:[SYSHLP.EXAMPLES.IMG]IMG$SCREEN_TO_DDIF_C.C
SYS$SYSROOT:[SYSHLP.EXAMPLES.IMG]IMG$SCREEN_TO_DDIF_
BAS.BAS
SYS$SYSROOT:[SYSHLP.EXAMPLES.IMG]IMG$SCREEN_TO_DDIF_
FOR.FOR
SYS$SYSROOT:[SYSHLP.EXAMPLES.IMG]ImgExamples.C
SYS$SYSROOT:[SYSHLP.EXAMPLES.IMG]ImgDataPlaneExamples.C
SYS$SYSROOT:[SYSHLP.EXAMPLES.IMG]Img_Cvt_Frame_Example.C
SYS$SYSROOT:[SYSHLP.EXAMPLES.IMG]Img_V3_Overview_C.C
SYS$SYSROOT:[SYSHLP.EXAMPLES.IMG]Img_V3_Examples.C

IDS Files

SYS$SYSROOT:[SYS$LIB]IDS$IMAGE.ADA
SYS$SYSROOT:[SYS$LIB]IDS$IMAGE.BAS
SYS$SYSROOT:[SYS$LIB]IDS$IMAGE.FOR
SYS$SYSROOT:[SYS$LIB]IDS$IMAGE.H
SYS$SYSROOT:[SYS$LIB]IDS$IMAGE.MAR
SYS$SYSROOT:[SYS$LIB]IDS$IMAGE.PAS
SYS$SYSROOT:[SYS$LIB]IDS$IMAGE.PLI
SYS$SYSROOT:[SYS$LIB]IDS$IMAGE.R32
SYS$SYSROOT:[IMG$INCLUDE]IDSIMAGE.H
SYS$SYSROOT:[SYS$LIB]IDS$ALLOC_COLORS.H
SYS$SYSROOT:[SYS$LIB]IDS$IMAGE.UIL
SYS$SYSROOT:[SYS$LIB]IDS$DEF.UIL
SYS$SYSROOT:[SYS$LIB]IMG$DEF.UIL
SYS$SYSROOT:[SYS$LIB]IDSSTATUSCODES.H
SYS$SYSROOT:[SYS$LIB]IDS$STATUS_CODES.H
SYS$SYSROOT:[SYS$LIB]IDS$STATUS_CODES.ADA
SYS$SYSROOT:[SYS$LIB]IDS$STATUS_CODES.BAS
SYS$SYSROOT:[SYS$LIB]IDS$STATUS_CODES.FOR
SYS$SYSROOT:[SYS$LIB]IDS$STATUS_CODES.MAR
SYS$SYSROOT:[SYS$LIB]IDS$STATUS_CODES.PAS
SYS$SYSROOT:[SYS$LIB]IDS$STATUS_CODES.R32
SYS$SYSROOT:[SYS$LIB]IDS$STATUS_CODES.PLI
SYS$SYSROOT:[IMG$INCLUDE]IDSDEF.UIL
SYS$SYSROOT:[IMG$INCLUDE]IDSIMAGE.UIL
SYS$SYSROOT:[IMG$INCLUDE]IDS_ALLOC_COLORS.H
SYS$SYSROOT:[IMG$INCLUDE]IMGDEF.UIL
SYS$SYSROOT:[IMG$INCLUDE]CHFDEF.H
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$EXAMPLES.COM
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$PAN_C.C
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$PAN_BAS.BAS
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$PAN_PAS.PAS
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$PAN_FOR.FOR
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$PIXMAP_BAS.BAS
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$PIXMAP_C.C
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$PIXMAP_FOR.FOR
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$WIDGET_DEMO.C
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$WIDGET_DEMO.UIL
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$WIDGET_DEMO_MOTIF.C
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$WIDGET_DEMO_
MOTIF.UIL
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$PAN_MOTIF_C.C
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$PAN_MOTIF_PAS.PAS
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$PAN_MOTIF_VMS_C.C
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$PAN_VMS_C.C
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$STATIC_PAS.PAS
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$STATIC_MOTIF_PAS.PAS
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$STATIC_C.C
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$STATIC_MOTIF_C.C
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$STATIC_MOTIF_VMS_C.C
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$STATIC_VMS_C.C
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$XIMAGETOFID_C.C
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$HARDCOPY_C.C
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$PAGE_TURN.C
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$PERF.C
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]IDS$PERF_C.COM

XIE Files

SYS$SYSROOT:[SYS$LIB]XIE$LIB.H
SYS$SYSROOT:[IMG$INCLUDE]XIELIB.H
SYS$SYSROOT:[IMG$INCLUDE]XIEAPPL.H
SYS$SYSROOT:[IMG$INCLUDE]XIEUDPDEF.H
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]XIE$PIPELINED_C.C
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]XIE$ATOMIC_C.C
SYS$SYSROOT:[SYSHLP.EXAMPLES.IDS]XIE$EXAMPLES.COM

Sample Images

All files are on SYS$COMMON:[SYSHLP.EXAMPLES.IMAGES].

V3_CANOE_88_COLOR.IMG
V3_ISO_BOARD_BITONAL.IMG
V3_ISO_BOARD_COLOR.IMG
V3_ISO_BOARD_GRAY.IMG
V3_ISO_BOATS_BITONAL.IMG
V3_ISO_BOATS_COLOR.IMG
V3_ISO_BOATS_GRAY.IMG
V3_MEDICAL_FORM_G42D_BITONAL.IMG
V3_TIGER_4BIT_GRAY.IMG
V3_WINTER_FEEDER_COLOR.IMG
V3_XRAY_GRAY.IMG