DECimage Character Recognition Services for VMS Installation Guide

Order Number: AA-PFFNA-TE

This guide contains instructions for installing the DECimage Character Recognition Services product.

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Preface

This guide describes how to install the DECimage™ Character Recognition Services (DCRS) product.

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 DCRS product for any reason.
- The DCRS product provides online release notes. To access the online release notes, you must specify OPTIONS N when you invoke VMSINSTAL. See Section 2.1 for more information on accessing 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 manual has 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, and installation procedure requirements.
Chapter 2	Describes general information for accessing online release notes and installing the DECimage Character Recognition Services product. Also explains the installation and error recovery procedures.
Chapter 3	Describes the user account requirements. Also explains how to install DCRS as a shared image and determine and report problems.
Appendix A	Contains a sample installation of the DECimage Character Recognition Services product.
Appendix B	Contains a list of the files created or modified by the installation procedure.

Related Documents

The DECimage Character Recognition Services documentation set contains the following documentation:

- *DECimage Character Recognition Services Installation Guide*
- *DECimage Character Recognition Services Programmer's Reference Manual*

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 VMS system management documentation.

For more information on using the LMF, see the manual on the License Management Facility in the VMS system management documentation.

For more information on system support, refer to the *DECimage Character Recognition Services System Support Addendum*.

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

Conventions

The following conventions are used throughout this manual:

Convention	Meaning
UPPERCASE	Uppercase words and letters indicate logical names, file names, and commands.
italicized text	Text printed in italics indicates manual titles and emphasis of words.
red ink	Indicates information that you must enter. For online versions, user input is shown in bold.
. . .	A horizontal ellipsis indicates that the preceding item or items can be repeated one or more times. For example, argument, argument_ i, ...

Chapter 1

Preparing to Install DECimage Character Recognition Services

This chapter discusses the requirements necessary for installing DECimage Character Recognition Services (DCRS).

DCRS is an optional component for the DECimage Application Services for VMS product. DCRS lets you incorporate optical character recognition (OCR) capabilities into your applications and provides language-independent, run-time support for OCR processing.

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.

DCRS provides online release notes. Digital recommends that you read the release notes once you have installed them. See Section 2.1 for information on accessing release notes.

1.1 Required Operating System Components

The VMS operating system comes with a variety of classes. Classes include such features as networking and VAX RMS™ (Record Management Services) journaling. To use DCRS, your system must be running VMS Version 5.3 with the following classes:

- VMS Required Saveset
- Programming Support
- System Programming Support
- CDA Toolkit Support

For a complete list of the required classes, see the Software Support Addendum (SSA), which comes with the Software Product Description (SPD).

1.2 Prerequisite Hardware

There is no requirement for specialized hardware. See the SSA for supported system configurations. Performance varies depending on the system configuration.

1.3 Optional Software

You can use the following optional software with DCRS:

- DECimage Application Services
- DECwindows™
- DECimage Scan Software
- VAX Ada™
- VAX BASIC™
- VAX BLISS™
- VAX C™
- VAX FORTRAN™
- VAX MACRO™
- VAX Pascal™
- VAX PL/I™

1.4 License Registration

You must register the DCRS license through the VMS License Management Facility (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 DCRS. The PAK is a paper certificate that contains information about the license to run a particular piece of software.

During the installation, the system asks whether you have registered the DCRS license and loaded the appropriate PAK. To run the Installation Verification Procedure (IVP) and use the software, you must register and load your license for DCRS *before* you start the installation.

To register a license under VMS, 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, enter the LICENSE REGISTER command with the appropriate qualifiers that correspond to PAK information.

If you plan to use DCRS on more than one node in a VAXcluster™, you will need to register the DCRS license on the other nodes after you complete this installation.

For complete information on using LMF, see the manual on the License Management Utility in the VMS documentation set.

1.5 Installation Procedure Requirements

This section discusses the various requirements for installing DCRS.

1.5.1 Installation Time

The installation takes approximately 5 to 10 minutes, depending on your type of media and your system configuration.

1.5.2 Privileges

To install DCRS, you must be logged in to an account that has either SETPRV or 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 DCRS requires a certain amount of free disk storage space during the installation. Table 1–1 summarizes the storage requirements for DCRS.

Table 1–1: Disk Space Requirements

Kit	Blocks During Installation	Blocks After Installation
DCRS Version 1.0	8,000	3,000

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 DCRS, 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 might need higher values for some settings.

Table 1–2: Recommended System Parameter Values

System Parameter	Minimum Value
CLISYMTBL[1]	250
GBLPAGES[2]	30,000

[1]The CLISYMTBL dynamic system parameter must be set to a minimum value of 250 during the installation procedure. You can change the setting to its original value once the installation is finished.
[2]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.

(continued on next page)

Table 1–2 (Cont.): Recommended System Parameter Values

System Parameter	Minimum Value
GBLPAGFIL	5,000
GBLSECTIONS[2]	440
LOCKIDTBL_MAX[3]	65,535
MAXBUF[3]	2,048
PQL_DASTLM[3]	24
PQL_DBIOLM[3]	18
PQL_DDIOLM[3]	18
RESHASHTBL	512
SRPCOUNTV	800
VIRTUALPAGECNT	24,000
WSMAX	4,096

[2]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.
[3]These dynamic system parameters must be set permanently to values equal to or greater than the values listed. Do not lower these values after the installation.

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 (SYSGEN):

```
$  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 system parameter listed in Table 1–2. The following example displays the value for the WSMAX system parameter:

```
SYSGEN>  SHOW WSMAX
```

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

1.5.4.2 Calculating the Values for GBLPAGES and GBLSECTIONS

To install and run DCRS, 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. Section 1.5.4.3 describes the procedures for changing these values using AUTOGEN.

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 reset manually. To change system parameters with AUTOGEN, 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.

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 = 4096
```

To modify incremental parameters such as GBLPAGES and GBLSECTS, use the prefix ADD_. The following example increases the global page setting by 2000:

```
ADD_GBLPAGES = 2000
```

Note that the page file quota cannot exceed the amount of page file space available to the system.

After you make all your changes, exit from the editor and execute the AUTOGEN procedure to recalculate your system parameters by entering the following command at the DCL prompt:

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

When you specify REBOOT, AUTOGEN performs an automatic system shutdown and then reboots the system. Any users logged on to 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 manual in the VMS 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 ACTIVE 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 be reset automatically the next time you reboot your system.

Table 1–3 shows the dynamic parameter value that DCRS requires.

Table 1–3: Recommended Dynamic Parameter Value

Dynamic Parameter	Value
CLISYMTBL	250

If the dynamic parameter value on your system is less than the value previously listed, use the following series of commands to change the value. The following example changes the CLISYMTBL value to 250.

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

1.5.5 Process Account Quotas

The account you use to install DCRS must have sufficient quotas to enable you to perform the installation. Table 1–4 summarizes the process quotas required for the installing account.

Table 1–4: Process Account Quotas for the Installing Account

Account Quota	Value
ASTLM	24
BIOLM	18
BYTLM	18,000
DIOLM	18
ENQLM	30
FILLM	20
PRCLM	2
WSDEF	1024[1]

[1]The values for WSEXT 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. Use the VMS Authorize Utility (AUTHORIZE) 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 UAF> prompt, enter the SHOW command with an account name to check a particular account. For example:

```
UAF>  SHOW SMITH
```

To change a quota, enter the MODIFY command. The following example changes the FILLM quota for the SMITH account and then exits from the utility:

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

After you exit from the utility, the system displays messages indicating whether or not changes were made. Once the changes have been made to a user account, you 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 System Management manual in the VMS documentation set.

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 any users are logged in to the system
- Whether the DECnet™ software is running
- Whether you have adequate quotas for installation

For a list of the minimum account quotas required for VMSINSTAL, refer to Table 1–4.

If VMSINSTAL detects any problems during the installation, it notifies you and asks if you want to continue the installation. In some instances, 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. You can 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 are established at your site. For details on performing a system disk backup, see the section on the Backup Utility in the VMS System Management manual in the VMS documentation set.

Chapter 2

Installing DECimage Character Recognition Services for VMS

This chapter describes the tasks required to install DCRS. These tasks include the following:

- Accessing online release notes
- Determining the files added to your system
- Running the Installation Verification Procedure (IVP)
- Building the DCRS sample DECwindows application (optional)

This chapter also explains the following:

- How to abort the installation
- How to use the installation procedure
- How to use the error recovery procedures

2.1 Accessing the Online Release Notes

DCRS provides online release notes. To access the online release notes, you must specify OPTIONS N when you invoke VMSINSTAL. 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 DCRS has been installed, the release notes are located in the following file:

```
SYS$HELP:DCRS010.RELEASE_NOTES
```

2.2 Determining the Files Added to the System

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

2.3 Running the Installation Verification Program (IVP)

The Installation Verification Program verifies the successful installation of DCRS. 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. It is recommended that you run the IVP to make sure that DCRS is installed correctly.

After DCRS 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 DCRS.

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

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

2.4 Aborting the Installation

To abort the installation procedure at any time, press Ctrl/Y. You can then start the installation again.

2.5 The Installation Procedure

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

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 paragraphs define the elements of the VMSINSTAL command procedure:

saveset-name
The installation name for the component. For DCRS, use the following installation name:

```
DCRS010
```

device-name
The name of the device on which you plan to mount the media. For example, MUA0: is the device name for a 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 manual for detailed information on these options. If you specify more than one option, separate the options with commas, for example, OPTIONS A,N.

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

```
$  @SYS$UPDATE:VMSINSTAL DCRS010 MUA0: OPTIONS N

      VAX/VMS Software Product Installation Procedure V5.3


It is 24-SEP-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 in the installation procedure. VMSINSTAL does not prompt you for any options, so be sure to include OPTIONS N on the VMSINSTAL command line if you want 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. **System backup**

   VMSINSTAL asks if you are satisfied with your system backup:

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

2. **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:   DCRS010
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. 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, DCRS mounted on _SUSHI$MUA0:
The following products will be processed:
  DECimage Character Recognition Services V1.0

Beginning installation of DECimage Character Recognition Services V1.0
     at 05:23

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

If you respond Yes to indicate that you are ready, VMSINSTAL displays a message that the media containing DCRS 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 ''Are you ready?'' question. To abort the installation for other reasons, press Ctrl/Y.

3. **Mounting additional media volumes**

   If your installation kit contains more than one volume, VMSINSTAL prompts you to mount 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:
```

4. **Selecting a release notes option**

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

```
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 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:

```
* 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.

5. **Continuing the installation**

   The installation procedure now asks if you want to continue the installation. To continue the installation, type Yes. Otherwise, press Return. 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:DCRS010.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 DCRS.

6. **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 DCRS. For example:

```
Product:        IMAGE-OCR-SERV-V
Producer:       DEC
Version:        1.0
Release Date:   03-JUN-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 need 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, register and load your product authorization key, and then restart the installation.

7. **Choosing to purge files**

   You have the option to purge files from previous versions of DCRS 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. **Choosing to run the Installation Verification Procedure (IVP)**

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

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

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. There are no further questions. If the installation procedure has been successful up to this point, VMSINSTAL begins moving files to their target directories, updates help files, and updates DCL tables, if necessary. If you chose to have files purged, that work is done now. The following message is displayed:

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

2.5.4 Running the Installation Verification Procedure (IVP)

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

```
DECimage Character Recognition Services V1.0
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 Character Recognition Services V1.0 completed
at 10:55

   VMSINSTAL procedure done at 10:55
```

You can now log out of the privileged account:

```
$  LOGOUT
SYSTEM     logged out at 24-SEP-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 back in again.

2.6 Error Recovery

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

```
%VMSINSTAL-E-INSFAIL, The installation of DECimage Character
     Recognition Services V1.0 has failed.
```

If the IVP fails, you see these messages:

```
The DECimage Character Recognition Services V1.0 Installation
            Verification Procedure failed.

%VMSINSTAL-E-IVPFAIL, The IVP for DECimage Character Recognition
                                    Services V1.0 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 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, 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.

2.7 Building the Sample DECwindows Application

Before you attempt to link the sample application, you must define a logical called IRS$EXAMPLES which points to the directory where the sample application files reside. The following example defines the logical IRS$EXAMPLES which points to the directory SYS$COMMON:[SYSHLP.EXAMPLES.DCRS]:

```
$ DEFINE IRS$EXAMPLES SYS$COMMON:[SYSHLP.EXAMPLES.DCRS]
```

You can then execute IRS$DECW_DEMO.COM to link the sample application:

```
$ @IRS$EXAMPLES:IRS$DECW_DEMO.COM
```

When this is complete you can run your sample application as follows:

```
$ RUN IRS$EXAMPLES:IRS$DECW_DEMO.EXE
```

Chapter 3

After Installing DECimage Character Recognition Services

This chapter describes the tasks that take place after installing DCRS. These tasks include the following:

- Running the Installation Verification Procedure (IVP) independently
- Modifying system parameter settings
- Setting user account quotas
- Reporting problems

3.1 Running the IVP After Installation

After DCRS 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 make sure users can access DCRS.

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

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

3.2 Modifying System Parameters

The installation for DCRS requires that you raise the values of the CLISYMTBL and CTLPAGES system parameters. Once the installation is complete, lower these values to ensure efficient system performance. Table 1–2 contains the minimum recommended parameter values for the installation.

3.3 User Account Requirements

To work with DCRS, user accounts on your system must have certain privileges and quotas. Section 3.3.1 and Section 3.3.2 contain information on these requirements.

3.3.1 Privileges

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

3.3.2 User Account Quotas

You must make sure that the appropriate user accounts have sufficient quotas to be able to use DCRS. Table 3–1 summarizes the recommended user account quotas.

Table 3–1: User Account Quotas for DCRS

Account Quota	Value
WSDEF	1024[1]
WSQUOTA	2048[1]
WSEXT	6144[1]

[1]The values for WSEXT and WSQUOTA must be equal to or greater than the WSDEF value. (See Table 1–4 for the WSDEF value.)

See Section 1.5.5 for a description of how to verify and change process account quotas.

To set up user accounts, you must define the terminal characteristics for the accounts.

3.3.3 Installing DCRS as a Shared Image

After you install DCRS, you can adjust your system to enhance performance or lower the use of some system resources.

If you expect DCRS to be used extensively on your system, you can reduce the system overhead and memory requirements by installing it as a shared image. If your system has been rebooted recently, you can reduce possible fragmentation of the global page table by installing DCRS as a shared image. To install DCRS as a shared image on a system that is currently running, use the VMS Install Utility (INSTALL).

To install DCRS as a shared image, first determine the number of available global pages and global sections on your system. See Section 1.5.4.2 for information on how to verify and modify the number of global pages and global sections. Table 1–2 contains the guidelines for setting these parameters.

Once you have reset the system parameter values, invoke the VMS Install Utility from a privileged account and then install DCRS as a shared image, as follows:

```
$  INSTALL
INSTALL>  ADD SYS$SHARE:IRS$SHRLIB.EXE /OPEN /SHARED
INSTALL>  EXIT
```

Now, add the following lines to the appropriate system startup command file so that DCRS is available as a shared image each time the system is started. (If your site has modularized its startup procedures, be sure you add the lines to the correct file.) The default startup command file is SYS$MANAGER:SYSTARTUP_V5.COM.

```
$  INSTALL ADD SYS$SHARE:IRS$SHRLIB.EXE /OPEN /SHARED
```

3.3.4 Installing DCRS on a VAXcluster

If you plan to use DCRS on more than one node in a VAXcluster, you will need to register the DCRS license on the other nodes after you complete this installation.

3.4 Determining and Reporting Problems

If an error occurs while DCRS is being used and you believe the error is caused by a problem with DCRS, 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 DCRS 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 DCRS documentation fill out and submit a Reader's Comments form. The forms are at the back of each manual. Be sure to use the form from the document in which you found the error. Please include the section and page number.

Appendix A

Sample Installation

This appendix contains a sample installation of the DCRS full development kit. This sample was run on a system that had no previous version of DCRS installed.

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

```
Username: SYSTEM
Password:

$  SET DEFAULT SYS$UPDATE
$  @VMSINSTAL DCRS010 MUA0: OPTIONS N

 VAX/VMS Software Product Installation Procedure V5.3

It is 30-JAN-1991 at 10:03

Enter a question mark (?) at any time for help.
* Are you satisfied with the backup of your system disk [YES]? Yes
* Where will the distribution volumes be mounted:  MUA0:

Enter the products to be processed from the first distribution volume set.
* Products:  dcrs010
* Enter installation options you wish to use (none):  n
Please mount the first volume of the set on  MUA0:.
* Are you ready? y
%MOUNT-I-MOUNTED, DCRS mounted on _SUSHI$MUA0:
The following products will be processed:
  DCRS V1.0

 Beginning installation of DCRS V1.0 at 10:05

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

    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]:  4
* Do you want to continue the installation [NO]?  y
%VMSINSTAL-I-RELMOVED, The product's release notes have been successfully
moved to SYS$HELP.

    Product:      IMAGE-OCR-SERV-V
    Producer:     DEC        Version:      1.0
    Release Date: 03-MAR-1991

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

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

```
YES

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

 The DECimage Character Recognition Services Installation Verification
 Procedure (IVP) has been provided in SYS$COMMON:[SYSTEST]

$  @SYS$TEST:DCRS$IVP.COM

You have answered all the questions required for this installation. The
installation will now continue for about 5 to 10 minutes without further
intervention, depending on your system's configuration, the installation
media, and the options you have selected.

%VMSINSTAL-I-SYSDIR, This product creates system disk directory
                                                VMI$ROOT:[SYSTEST.DCRS].

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

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

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

DECimage Character Recognition Services V1.0
Installation Verification Procedure is beginning...

Verifying that all files were provided successfully

Linking the IVP

Running the IVP...

DECimage Character Recognition Services V1.0
Installation Verification Procedure completed successfully

 Installation of DCRS V1.0 completed at 10:14

Enter the products to be processed from the next distribution volume set.
* Products:
 VMSINSTAL procedure done at 10:15


$  LOGOUT
  SYSTEM       logged out at 30-JAN-1991 10:30:05.65
```

Appendix B

Files Installed on Your System

The DCRS installation procedure installs a number of files on your system. The following list contains the names of these files.

SYS$LIBRARY:

IRS$SHRLIB.EXE

IRSDEF.ADA
IRSDEF.BAS
IRSDEF.FOR
IRSDEF.H
IRSDEF.MAR
IRSDEF.PAS
IRSDEF.PLI
IRSDEF.R32

IRSENTRY.ADA
IRSENTRY.BAS
IRSENTRY.FOR
IRSENTRY.H
IRSENTRY.MAR
IRSENTRY.PAS
IRSENTRY.PLI
IRSENTRY.R32

IRSSTATUSCODES.ADA
IRSSTATUSCODES.BAS
IRSSTATUSCODES.FOR
IRSSTATUSCODES.H
IRSSTATUSCODES.MAR
IRSSTATUSCODES.PAS
IRSSTATUSCODES.PLI
IRSSTATUSCODES.R32

SYS$TEST:

DCRS$IVP.COM

SYS$TEST:[.DCRS]

DCRS$IVP.C
DCRS$IVP.DDIF
DCRS$IVP.EXE
DCRS$IVP.OBJ

SYS$COMMON:[SYSHLP.EXAMPLES.DCRS]

IRS$DECW_DEMO.C
IRS$DECW_DEMO.COM
IRS$DECW_DEMO.HLB
IRS$DECW_DEMO.HLP
IRS$DECW_DEMO.OBJ
IRS$DECW_DEMO.OPT
IRS$DECW_DEMO.UIL
IDSDEF.UIL
IDSIMAGE.UIL
IMGDEF.UIL
OFS_DIALOG.UIL

SYS$HELP:

DCRS010.RELEASE_NOTES