DECimage Scan Software for VMS

Installation Guide

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This guide describes how to install DECimage Scan Software for VMS.

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About This Guide

This guide describes how to install the DECimage Scan Software for VMS product. DECimage Scan Software is a scanning program used to acquire digitized images from paper or film originals.

Purpose of This Guide

This guide describes how to install DECimage Scan Software. Keep this guide with your distribution kit, you will need to refer to it again if you reinstall the DECimage Scan Software for VMS product for any reason.

Who Should Use This Guide

This guide is for VMS system managers and assumes experience in installing layered products on VMS systems. In addition, this guide assumes experience with the following VMS utilities:

- VMSINSTAL
- SYSGEN
- AUTHORIZE

Structure of This Guide

Information in this guide is presented as follows:

Chapter 1	Describes the required operating system components, prerequisite and optional software and hardware, License Management Facility, cluster considerations, and installation procedure requirements for installing the DECimage Scan Software for VMS product.
Chapter 2	Describes general information for installing the DECimage Scan Software for VMS product, the installation procedure, and error recovery.
Chapter 3	Describes editing the system startup and shutdown files, modifying system parameters, rebooting the system, registering the license on other systems in the cluster, and determining and reporting problems.
Appendix A	Contains a sample installation of the DECimage Scan Software for VMS product.
Appendix B	Lists files installed on your system with the installation of the DECimage Scan Software for VMS product.
Appendix C	Describes how to connect an MD400 series scanner to your system unit.

For More Information

In addition to this guide, the DECimage Scan Software for VMS documentation set contains the following:

- *DECimage Scan Software for VMS Release Notes*
- *DECimage Scan Software for VMS User's Guide*

Other related documents include:

- *DECwindows User's Guide*
- *DECwindows Installation Guide*
- *VMS License Management Utility Manual*
- *Introduction to VMS System Management*
- *VMS Install Utility Manual*

Conventions

Return	In examples, a key name, enclosed in a box, indicates that you press a key on the keyboard.
Ctrl/Y keys	In text, instructions such as press the Ctrl/Y keys indicate that you must press the Ctrl key and the indicated key simultaneously.
. . .	A vertical ellipsis means that not all the information is shown.
. . .	A horizontal ellipsis means that the command will accept additional parameters, values, or information.
UPPERCASE	Uppercase letters indicate command names, qualifiers, and acronyms.
blue-green ink	In interactive examples, blue-green ink indicates information that you must enter from the keyboard. Black ink in interactive examples indicates the system response.
boldface text	In online versions, boldface text in interactive examples indicates information you must enter from the keyboard.

1

Preparing to Install DECimage Scan Software for VMS

This chapter discusses the preparations and requirements necessary for installing DECimage Scan Software for VMS.

This manual applies to Version 2.1 of DECimage Scan Software for VMS and all subsequent maintenance releases up to the next major product release.

Your bill of materials (BOM) and indented bills report (BIL) specify the number and 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 Scan Software for VMS provides online release notes. Digital strongly recommends that you read the release notes before proceeding with the installation. For information on accessing the online release notes, see Chapter 2.

Required Operating System Components

The VMS operating system comes with a variety of support options, or classes. Classes include such features as networking and RMS journaling.

The DECimage Scan Software for VMS product requires VMS Version 5.4. For VMS Version 5.4 or higher, all classes of VMS are required for full functionality of this layered product.

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

Prerequisite and Optional Hardware

The following sections describe the required and optional hardware for DECimage Scan Software for VMS.

Prerequisite Hardware

DECimage Scan Software runs on all hardware configurations supported by DECwindows Version 2.0. Although 8 MB of processor memory is needed to install DECimage Scan Software, Digital recommends a memory allotment of at least 16 MB memory for maximum image processing efficiency.

Table 1–1 lists the recommended minimum configuration based on the VAXstation II workstation.

Table 1–1 Hardware Requirements for DECimage Scan Software for VMS

Item	Purpose
VAXstation II or higher[1]	For processing image data, running the scanner drivers, and processing the image toolkit
16 MB of processor memory	For running VMS, DECimage Scan Software, and handling image data
One VR series monitor	For viewing images
One mouse	For interacting with the DECwindows interface
One keyboard	For interacting with VMS and the DECwindows interface

[1]If you are installing the software on a standalone system, a TK50 cartridge tape drive is also required.

Note

The DECimage Scan Software for VMS product is not supported by the VAXstation I or VAXstation 8000 workstation.

Optional Hardware

If you want to attach a scanner to the system on which you install the DECimage Scan Software for VMS product, you also need one of the following scanners:

- MD300
- MD400
- MD410

The minimum hardware requirements for any future versions of this product may be different from the minimum hardware requirements for the current version.

Prerequisite Software

This section describes the prerequisite software for use with DECimage Scan Software for VMS.

Table 1–2 provides information on the software you must have installed on your system before installing DECimage Scan Software for VMS.

Table 1–2 Prerequisite Software

Prerequisite Products	Purpose
DECnet/VAX 5.3	For remote image acquisition
VMS Version 5.4	For an operating environment

Refer to the SSA for a complete list of prerequisite software and the associated version numbers.

License Registration

Before you install and run DECimage Scan Software for VMS Version 2.1 on a newly licensed node or cluster, you must first register a License Product Authorization Key (License PAK) using the License Management Facility (LMF). The License PAK is shipped along with the kit if you ordered the license and media together; otherwise, it is shipped separately to a location based on your license order.

If you are installing DECimage Scan Software for VMS as an update on a node or cluster already licensed for this software, you have already completed the License PAK registration requirements.

You must register and load your license for DECimage Scan Software for VMS *before* you start the installation in order to run the Installation Verification Procedure (IVP) and use the software.

To register a license under VMS, first log in to the system manager's account, SYSTEM. You then have a choice of two ways to perform the registration:

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

If you plan to use DECimage Scan Software for VMS on more than one node in a VAXcluster, you will need to perform a license load on the other nodes after you complete this installation. See Chapter 3 for information on registering the license on other systems in the cluster.

For complete information on using LMF, see the *VMS License Management Utility Manual*.

Special Requirements for Installing DECimage Scan Software for VMS

If you plan to install both the DECimage Application Services and the DECimage Scan Software for VMS product, install the DECimage Application Services software first.

VAXcluster Considerations

This layered product is fully supported when installed on any valid and licensed VAXcluster Version 5.4 configuration without restrictions. The Prerequisite Hardware section of this guide describes the special hardware required by the DECimage Scan Software for VMS product.

Refer to Chapter 3 for information specific to VAXcluster IVP and startup procedures.

Installation Procedure Requirements

This section and those that follow discuss various requirements for installing DECimage Scan Software for VMS.

The installation takes approximately 10 to 15 minutes, depending on your type of media and your system configuration.

Installing DECimage Scan Software for VMS and running the IVP on a standalone VAXstation 3100 system takes approximately 10 minutes.

Privileges and Disk Space

To install DECimage Scan Software for VMS, you must be logged in to the system manager's account that has SETPRV or at least the following privileges:

- CMKRNL
- WORLD
- SYSPRV

Note

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

The requirements for free disk storage space for DECimage Scan Software for VMS are different during installation and after installation. Table 1–3 summarizes the storage requirements.

Table 1–3 Disk Space Requirements

Kit	Blocks During Installation	Blocks After Installation
DECimage Scan Software for VMS Version 2.1	3000	400

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
```

System Parameters

Installing DECimage Scan Software for VMS requires certain system parameter settings. Table 1–4 lists the minimum required system parameter values for the installation. Depending on the kinds of programs and applications running at your site, you may need higher values for some settings.

Table 1–4 Minimum Required System Parameter Values

System Parameter[1]	Minimum Value
min_CLISYMTBL[2]	500
min_PROCSECTCNT	48
add_SPTREQ	7304
min_VIRTUALPAGECNT	50000
min_WSMAX[3]	20480

[1]Use VMS AUTOGEN for changing system parameters. Values listed in the table use the _MIN and _ADD prefix. This enables AUTOGEN to size the system correctly.

[2]The CLISYMTBL dynamic system parameter must be set to a minimum value of 500 during the installation procedure. You can change the setting to its original value once the installation is finished.

[3]WSMAX values depend on the type of scanning done on your system. The value shown is the minimum required if scanning an 8.5 by 11 inch document at 300 dpi in Grayscale mode. See the section Calculating the WSMAX Value for further information.

The following sections show you how to:

- Check system parameter values.
- Calculate the value for WSMAX.
- Change parameter values with the VMS AUTOGEN command procedure.
- Set dynamic parameters with the VMS System Generation Utility (SYSGEN).

Checking System Parameter Values

To check the values of your system parameters, enter the following command at the DCL prompt to invoke 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 1–4. The following example displays the value for the VIRTUALPAGECNT system parameter:

```
SYSGEN>  SHOW VIRTUALPAGECNT
```

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

Calculating the WSMAX Value

To correctly set the WSMAX system parameter, you need to know what type of document scanning the system will perform. Factors such as the page size, resolution, and type of images you want to create must be considered. The scanner driver needs to lock into physical memory a buffer large enough to hold the entire scanned image.

Table 1–5 lists the minimum recommended WSMAX system parameter values for scanning A-size bitonal and gray scale documents. The system parameter values correspond to documents scanned at various resolutions. These resolution values are listed in dots per centimeter (dpc) and dots per inch (dpi).

Table 1–5 Recommended Minimum WSMAX System Parameter Values

Resolution (dpc)	Resolution (dpi)	Bitonal Images	Gray Scale Images
79	200	5478	15054
118	300	6159	20480
126	320	6288	21627
157	400	6836	26010

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, you can do one of the following:

- Delete the current value associated with the parameter and enter a new value.
- Use one of the parameter prefixes to increment or set a minimum for the current value.

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

```
WSMAX = 1024
```

To add a new parameter and let AUTOGEN calculate the final optimal system value, use the MIN_ prefix. The following example tells AUTOGEN not to size the working set maximum below 20480. AUTOGEN may, however, determine a value higher than 20480.

```
MIN_WSMAX = 20480
```

To incrementally modify a parameter such as SPTREQ, use the ADD_ prefix. The following example increases the system page table entries by 7304:

```
ADD_SPTREQ = 7304
```

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

```
$ @SYS$UPDATE:AUTOGEN SAVPARAMS GENPARAMS
```

This command instructs AUTOGEN to do the following:

- Save the current feedback information.
- Gather all of the information required for calculations.
- Calculate the system parameter values.
- Generate the feedback report.

- Write the information to SETPARAMS.DAT.

After checking the SETPARAMS.DAT file, execute AUTOGEN a second time by using the following command:

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

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

AUTOGEN 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 Subkit.

Setting Dynamic System Parameter Values

Use SYSGEN to set dynamic parameters. Dynamic parameters changed with the SYSGEN WRITE ACTIVE command become active immediately without any need to reboot your system. In fact, rebooting returns dynamic system parameter values to their previous settings.

Once you change dynamic parameter values, you should 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 when you next reboot your system.

Table 1–6 shows the required dynamic parameter values for DECimage Scan Software for VMS.

Table 1–6 Required Dynamic Parameter Values

Dynamic Parameter	Value
CLISYMTBL	500

If the dynamic parameter values on your system are less than the values previously listed, use the following series of commands

to change the values. The following example changes the CLISYMTBL value to 500:

```
$  RUN SYS$SYSTEM:SYSGEN
SYSGEN>  USE ACTIVE
SYSGEN>  SET CLISYMTBL 500
SYSGEN>  WRITE ACTIVE
SYSGEN>  EXIT
```

Process Account Quotas

The account you use to install the DECimage Scan Software for VMS product must have sufficient quotas to enable you to perform the installation. Table 1–7 summarizes the minimum process quotas required for the installation account.

Table 1–7 Process Account Quotas for the Installing Account

Account Quota	Minimum Value
ASTLM	24
BIOLM	18
BYTLM	18000
DIOLM	18
ENQLM	30
FILLM	20
WSDEF[1]	256
WSEXT	2048
WSQUO	512

[1]The values for WSEXT and WSQUO 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:

```
$  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, 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 Subkit.

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

VMSINSTAL requires that the installation account have a minimum of the following quotas:

ASTLM = 24
BIOLM = 18
BYTLM = 18,000
DIOLM = 18
ENQLM = 30
FILLM = 20
WSDEF = 256
WSEXT = 2,048
WSQUO = 512

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 enter YES to continue. To stop the installation process and correct the situation, enter NO or press the Return key. Then correct the problem and restart the installation.

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 Subkit.

DECimage Scan Software for VMS Requirements

There must be at least 3,000 blocks of free disk space in order to proceed with the installation procedure.

2

Installing DECimage Scan Software for VMS

This chapter explains how to install DECimage Scan Software for VMS. The section Installation Procedure contains a step-by-step description of the installation procedure.

Installation Procedure

The DECimage Scan Software for VMS installation procedure consists of a series of questions and informational messages. See Appendix A for a sample installation.

To abort the installation procedure at any time, press the Ctrl/Y keys. When you press Ctrl/Y, the installation procedure deletes all files it has created up to that point and exits. You can then start the installation again.

1. **Invoke VMSINSTAL.**

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

   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. The following list defines the elements of the VMSINSTAL command procedure:

   saveset-name
   The installation name for the component. For DECimage Scan Software for VMS, use the following installation name:

   ```
   @SYS$UPDATE:VMSINSTAL ISA021 MTA0: OPTIONS N
   ```

device-name
The name of the device on which you plan to mount the media. For example, MTA0: 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 question on release notes. If you do not include the OPTIONS N parameter, VMSINSTAL does not ask you about the release notes. You should review the release notes before proceeding with the installation in case they contain additional information about the installation. If you are restarting the installation and have already reviewed the release notes, you do not need to specify OPTIONS N.

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

- Auto_answer option (A): Initially 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 (typically 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 Subkit for detailed information on these options. If you specify more than one option, separate the options with commas (OPTIONS A,N).

The following example invokes VMSINSTAL to install DECimage Scan Software for VMS from tape drive MTA0: and shows the system response. This example uses the OPTIONS N release notes parameter.

```
$  @SYS$UPDATE:VMSINSTAL ISA021 MTA0: OPTIONS N

      VMS Software Product Installation Procedure V5.4


It is 5-JAN-1991 at 14:33.
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 to access the release notes during the installation.

2. **Confirm DECnet status.**

   If you are installing on VMS Version 5.4 or higher, VMSINSTAL does not check the DECnet status. You can install DECimage Scan Software for VMS while DECnet is up and running.

3. **Confirm system backup.**

   ```
   * Are you satisfied with the backup of your system disk?
   ```
   Return

   VMSINSTAL asks if you are satisfied with your system backup. 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, enter NO to discontinue the installation. After you back up your system disk, you can restart the installation.

4. **Mount the media.**

   ```
   Please mount the first volume of the set on MTA0:.
   * Are you ready?  YES
   %MOUNT-I-MOUNTED, DSS021 MOUNTED ON _$$MTA0:  (NODE 1)
   The following products will be processed:
         ISA V2.1

       Beginning installation of ISA V2.1 at 14:34

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

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.

If you respond YES to indicate that you are ready, VMSINSTAL displays a message that the media containing DECimage Scan Software for VMS 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, enter NO in response to the ''Are you ready?'' question. To abort the installation for other reasons, press the Ctrl/Y keys.

5. **Mount additional media volumes.**

```
%BACKUP-I-READYREAD, mount volume 2 on _MTA0: for reading

Enter "YES" when ready:  YES
```

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

6. **Select a release notes option.**

If you specified OPTIONS N when you started the installation, VMSINSTAL asks a question on release notes. You have the following four options for handling the release notes under VMS Version 5.4:

```
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 the Ctrl/C keys.

If you select option 2, VMSINSTAL prompts you for the name of the print queue:

```
* 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.

If you select option 4, VMSINSTAL copies the release notes to the system help directory. Select option 4 if you reviewed the release notes and are restarting the installation.

Note that hardcopy release notes are included with the documentation set for DECimage Scan Software for VMS.

Next, VMSINSTAL displays the following question:

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

To continue the installation, enter YES. Otherwise, press the Return key. In either case, the release notes are copied to a file in the SYS$HELP directory:

```
SYS$HELP:ISA021.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 Scan Software for VMS.

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

```
Product:       IMAGE-SCAN
Producer:      DEC
Version:       V2.1
Release Date:  10-JUN-1991

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

The installation procedure displays license information about your product and then asks if you have registered and loaded your Product Authorization Key (PAK).

If you have not registered and loaded your PAK, you must answer NO to this question. You have to register and load your PAK to successfully complete the installation. If you have not done so, you should stop the installation, register and load your PAK, and then restart the installation.

8. **Respond to local scanner information.**

   The installation procedure prints information about quotas you should modify for accounts that use a scanner.

```
In order to properly utilize all scanners and the IIS server,
please modify (using AUTHORIZE) all user accounts which will be
using the DECimage Scan Software to the following MINIMUM
quotas:

                BYTLM     >= 80000
                PGFLQUO   >= 50000
                WSQUOTA   >= 4096
                WSEXTENT  >= 16384
```

9. **Purge files.**

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

   You have the option to purge files from previous versions of DECimage Scan Software for VMS that are superseded by this installation. Purging is recommended; however, if you need to keep files from the previous version, enter NO in response to the question.

10. **Choose the Installation Verification Procedure (IVP) option.**

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

    The installation procedure now asks if you want to run the IVP. The IVP for DECimage Scan Software for VMS checks to be sure that the installation is successful. Digital recommends that you run the IVP.

    After DECimage Scan Software for VMS is installed, you can run the IVP independently to verify that the software is available on your system. You may need to run the IVP after

a system failure to make sure that users can access DECimage Scan Software for VMS.

11. **Read 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 moves the new or modified 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...
```

12. **Observe 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 display:

```
Starting the Installation Verification Procedure for:
    DECimage Scan Software
    .
    .
    .
    The ISA Installation Verification Procedure completed.
```

13. **End the installation procedure.**

```
  Installation of ISA V2.1 completed at 14:55

     VMSINSTAL procedure done at 15:01
```

    The previous messages indicate that the entire installation procedure is complete.

    You can now log out of the privileged account:

```
$  LOGOUT
SYSTEM     logged out at 5-JAN-1991 15:06:52.63
```

Note

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.

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 ISA V2.1 has failed.

Please consult the DECimage Scan Software Installation
Guide for further information.
```

If the IVP fails, you see these messages:

```
The ISA V2.1 Installation Verification Procedure failed.

%VMSINSTAL-E-IVPFAIL, The IVP for ISA V2.1 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. For information on installation requirements, see Chapter 1.

3

After Installing DECimage Scan Software for VMS

The following tasks take place after installing DECimage Scan Software for VMS:

- Running the Installation Verification Procedure separately
- Editing the system startup and shutdown files
- Rebooting the system
- Registering the license on other systems in the cluster
- Setting user account quotas
- Reporting problems

Running the Installation Verification Procedure Separately

You usually run the IVP during installation. If you want to run the IVP separately to ensure the integrity of installed files should system problems occur, execute the following command procedure:

```
$  SET DEFAULT SYS$SYSROOT:[SYSTEST]
$  @ISA$IVP
```

When running IVP in a cluster environment, you must run the following command procedure for each node in the cluster:

```
$  SET DEFAULT SYS$COMMON:[SYSTEST]
$  @ISA$IVP
```

Editing the System Files

The installation procedure deletes the following obsolete files. Delete any lines in SYS$MANAGER:SYSTARTUP_V5.COM that refer to these files:

- SYS$STARTUP:IMG$STARTUP.COM
- SYS$STARTUP:VIS$STARTUP.COM

You must edit the system startup and shutdown files to provide for automatic startup and shutdown of DECimage Scan Software for VMS when your system is rebooted. To provide for automatic startup of the scanner server, add the following line to SYS$MANAGER:SYSTARTUP_V5.COM:

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

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 DECimage Scan Software for VMS startup command line:

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

If you are using an MD400 or MD410 scanner that is not connected to the default port (LKb0:), you must edit the SYS$STARTUP:IIS$SERVER_STARTUP.COM file using the following command line:

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

In that 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 Small Computer System Interface (SCSI) port identifier set on the DIP switches
00 = the logical unit number, which is always zero

Refer to the owner's manual of your system to learn how to verify the port identifier and list the input devices connected to your system. One of the devices connected to your system should be the SCSI port, to which your MD400 or MD410 scanner is attached. If the port identifier for your scanner is incorrect, you must edit the LKbn00 field of the command line.

Refer to Appendix C to learn how to connect a MD400 series scanner to a SCSI class port.

If you plan to operate your scanner as a local device, proceed directly to rebooting your system. If you plan to use your scanner as a remote device, the IIS server component must first be installed and running. To run the server, enter the following command procedure from the system account:

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

In a VAXcluster environment, you must execute the following startup procedure for each satellite node that has a scanner:

1. Copy the startup file from the following directory:

   ```
   $ COPY  SYS$COMMON:[SYS$STARTUP]IIS$SERVER_STARTUP.COM
   To:  SYS$SPECIFIC:[SYS$STARTUP]
   ```

2. Edit the startup file, using the MCR command line, as described in the previous section.

3. Enter the following command procedure from the system account:

   ```
   $  @SYS$SPECIFIC:[SYS$STARTUP]IIS$SERVER_STARTUP.COM
   ```

4. Proceed to rebooting your system.

Rebooting the System

You can reboot your system after you have installed the DECimage Scan Software for VMS product, edited the system startup and shutdown files, and reset the system parameters. A system reboot verifies that the DECimage Scan Software for VMS product is ready for use, ensures that the edits to the system startup command file are correct, and establishes any new parameter settings. Note, however, that rebooting is optional.

Registering the License on Other Systems in the Cluster

To use the DECimage Scan Software for VMS product on other systems in a cluster, you must register the license on each system. Therefore, you must complete a license loading procedure on each system using the DECimage Scan Software for VMS product. For information about managing multiple licenses for the same product, see the *VMS License Management Utility Manual*.

User Account Requirements

To work with the DECimage Scan Software for VMS product, user accounts on your system must have certain privileges and quotas. The next two sections contain information on these requirements. The third section discusses how to set up user accounts.

Privileges

To use DECimage Scan Software for VMS, 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.

User Account Quotas

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

Table 3–1 User Account Quotas for Using DECimage Scan Software for VMS

Account Quota	Value
BYTLM	80,000
PGFLQUO	50,000
WSDEF	1,024
WSEXT	16,384[2]
WSQUO	4,096[1]

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

[2]Refer to the Table 1–5 for more information on recommended working set values for different types of images.

See Chapter 1 for a description of how to verify and change account quotas.

Setting Up User Accounts

User accounts must have the terminal characteristics defined for them.

Determining and Reporting Problems

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

- Call Digital if your software contract or warranty agreement entitles you to telephone support.
- Submit a Software Performance Report (SPR).
- Fill out and submit a Reader's Comments form if the problem has to do with the DECimage Scan Software for VMS documentation. There are Reader's Comments forms at the back of each manual. Use the form from the manual in which you found the error. Include the section and page number.

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

A

Sample Installation

This appendix contains a sample installation of DECimage Scan Software for VMS. This sample was run on a system that had no previous version of DECimage Scan Software for VMS installed.

The sample installation assumes that DECnet has been shut down, that no users are logged in to your system, and that OPTIONS N is specified to print the release notes. The IVP runs at the end of the installation.

```
Username:  SYSTEM [Return]
Password:

$  @VMSINSTAL [Return]

 VAX/VMS Software Product Installation Procedure V5.4


It is 22-JAN-1991 at 22:38
Enter a question mark (?) at any time for help.

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

* Where will the distribution volumes be mounted:  MUA0: [Return]

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

* Products:  ISA021 [Return]

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

The following products will be processed:

  ISA V2.1


 Beginning installation of ISA V2.1 at 22:38

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

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


 Installation procedure for DECimage Scan Software V2.1
```

```
   ******************************************************************
    Be sure you have read the section entitled:
    "Preparing Your System and the Installing Account"
    in the installation guide before continuing with the installation.
   ******************************************************************

    Checking system requirements.

Product:      IMAGE-SCAN
Producer:     DEC
Version:      V2.1
Release Date: 10-JAN-1991

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

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

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

     In order to properly utilize all scanners and the IIS server, please
   modify (using AUTHORIZE) all user accounts which will be using the
   DECimage Scan software to the following MINIMUM quotas:

                BYTLM     >= 80000
                PGFLQUO   >= 50000
                WSQUOTA   >= 4096
                WSEXTENT  >= 16384


        You have answered all the questions required for this installation.
  The installation will now continue for about 20 minutes without further
  intervention, depending on your system's configuration, the installation
  media, and the options you have selected.

%VMSINSTAL-I-RESTORE, Restoring product saveset B ...
%VMSINSTAL-I-RESTORE, Restoring product saveset C ...
%VMSINSTAL-I-RESTORE, Restoring product saveset D ...

Linking ISA$MAIN.EXE

Linking IIS Remote Server

Linking LDDRIVER
NOTE: The following warning message is expected for the LDDRIVER:
     "%LINK-W-USRTFR, image has no user transfer address"

%LINK-W-USRTFR, image DISK1$DUA0:[SYS0.SYSUPD.ISA021]LDDRIVER.EXE;1 has no user
transfer address

Linking LKDRIVER
NOTE: The following warning message is expected for the LKDRIVER:
     "%LINK-W-USRTFR, image has no user transfer address"

%LINK-W-USRTFR, image DISK1$DUA0:[SYS0.SYSUPD.ISA021]LKDRIVER.EXE;1 has no user
transfer address

 The DSS Installation Verification Procedure (IVP) has
 been provided in SYS$SYSROOT:[SYSTEST].
```

```
        $ SET DEFAULT SYS$SYSROOT:[SYSTEST]
        $ @ISA$IVP

     Prior to running the IIS server, system parameters and quotas may
     have to be adjusted. An analysis of your current system parameters
     shows that:

         All system parameter values meet minimum requirements

     In order to start up the IIS 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.

     In a cluster environment, this startup procedure must be executed for every
     satellite node that has a scanner physically attached to it, and wants to
     allow remote access to it's scanner.

     The release notes are available on line by typing HELP ISA RELEASE_NOTES.
%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target directories...

 Starting Installation Verification Procedure for:
  DECimage Scan Software V2.1

 This Installation Verification Procedure verifies that the
 proper files were successfully provided in the correct locations.

 Since DSS is an interactive product and requires human
 intervention to validate its output, it is recommended that the
 installer do a scan as soon as possible to verify that the
 installation was completely successful.


 DECimage Scan Software V2.1 Installation Verification
 Procedure completed successfully.

 Installation of ISA V2.1 completed at 22:47

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

 VMSINSTAL procedure done at 22:47


$  LOGOUT [Return]
  SYSTEM       logged out at 22-JUL-1989 22:57:05.65
```

B

Files Installed on Your System

The DECimage Scan Software for VMS installation procedure installs a number of files on your system. The following list contains the names of all files created on your system when DECimage Scan Software for VMS product is installed:

- SYS$SYSTEM:ISA$MAIN.EXE
- SYS$SYSTEM:IIS$SERVER_MAIN.EXE
- DECW$SYSTEM_DEFAULTS:ISA$UIL.UID
- SYS$HELP:ISA$HLP.HLB
- SYS$STARTUP:IIS$SERVER_STARTUP.COM
- SYS$SYSROOT:[SYS$LDR]LDDRIVER.EXE
- SYS$SYSROOR:[SYS$LDR]LKDRIVER.EXE
- SYS$TEST:ISA$IVP.COM

C

Connecting an MD400 Series Scanner to the System

This appendix describes the proper connection procedure for the MD400 series scanners. The connection procedure consists of the following steps:

- Locating an available port on the Small Computer System Interface (SCSI) bus
- Configuring the scanner
- Attaching the scanner to a port on the system unit
- Activating the system

Locating an Available Port

Before you can attach the scanner to the system unit, you must find an available port on the SCSI bus.

To determine which ports are available, follow these steps:

1. On the system where you plan to connect the scanner, enter the following command at the system boot prompt (>>>):

   ```
   >>>  SHOW DEVICE
   ```

Note

The SHOW DEVICE command is only available for the VS3000 series CPU. If you are using another type of CPU, refer to the hardware documentation for a similar command.

This command displays a table containing the device names and their location on the SCSI bus. This table contains information similar to Figure C–1.

Figure C–1 Device Table

```
VMS/VMB      ADDR   DEVTYP  NUMBYTES  RM/FX  WP  DEVNAM  REV
-------      ----   ------  --------  -----  --  ------  ---
ESA0         08-00-2B-07-E3-83

DKA300       A/3/0  DISK    104 MB    FX         RZ23L   xxxx
MKA500       A/5/0  TAPE    -----     RM    WP

...HOSTID... A/6 INITR

DKA200       A/2/0  DISK    104 MB    FX         RZ23L
DKA400       A/4/0  RODISK  205 MB    RM    WP   RRD42
```

where:

VMS/VMB is the VMS device number.
ADDR is either a 12-character Ethernet hardware address

or
An identifier string consisting of the following:

SCSI bus identifier
SCSI ID number
Logical Unit Number (LUN)

DEVTYP is the device type.
NUMBYTES is the number of megabytes.
RM/FX is the type of hardware device, removable or fixed.
WP signifies write protection.
DEVNAM is the VMS device name.
REV is the revision number.

Each line of the table contains detailed information on each device located on the SCSI bus. For example, the last line in Figure C–1 indicates that an RRD42 compact disk drive is located at address ID 4 on SCSI bus A. The RRD42 drive is a read-only, removable disc, and is write protected.

2. Find the lowest available SCSI ID number. For example, in Figure C–1 the ID numbers 2 through 6 are being used by other devices, leaving an ID of 0 or 1 for the scanner.

Note

The system assigns CPU time to devices according to their SCSI ID values (where 0 is the lowest value, and 7 is the highest value). If multiple devices, located on the same SCSI bus, are competing for the bus resources, the system gives priority to the device with the highest SCSI ID.

To ensure that system efficiently allocates bus resources, it is important that you assign the scanner the lowest possible SCSI ID number.

3. Record the SCSI ID number. You need this number to configure the scanner.

Configuring the Scanner

Once you determine which SCSI ID is available, you must configure the Dual In-line Package (DIP) switches on the rear of the scanner to match the SCSI ID number.

Note

On the MD410 scanner, the DIP switches are located immediately to the right of the SCSI cable connectors. On the MD400, the DIP switches are immediately to the left of the SCSI cable connectors.

Figure C–2 shows the eight switches, and Table C–1 shows their corresponding values.

Figure C–2 DIP Switch Diagram

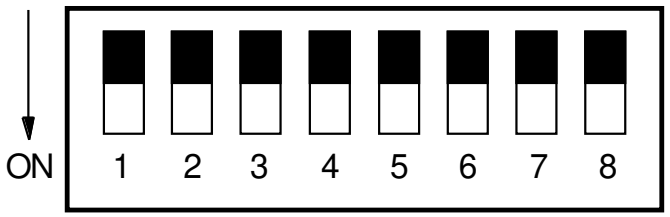


Table C–1 DIP Switch Values

Switch Number	Function	Values	
		On	Off
1	Mode Select	Self test	Normal scanning
2	Not Used		
3	Reserved		
4	I/F Select	Bidirectional parallel	SCSI
5	Scan Speed	Low speed	High-speed scanning
6	SCSI ID	0	1
7	SCSI ID	0	1
8	SCSI ID	0	1

To configure the scanner, set the DIP switches to the appropriate SCSI ID, according to the settings listed in Table C–2.

Table C–2 DIP Switch Settings for the SCSI ID

Switch Number	SCSI ID Number							
	0	1	2	3	4	5	6	7
6	On	On	On	On	Off	Off	Off	Off
7	On	On	Off	Off	On	On	Off	Off
8	On	Off	On	Off	On	Off	On	Off

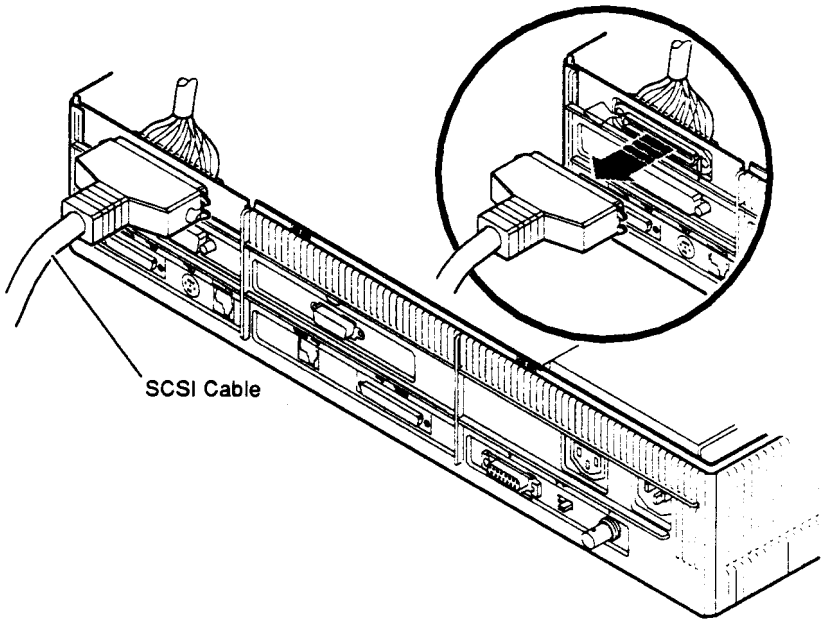
Now you are ready to attach the scanner to the system unit.

Attaching the Scanner to a System Unit Port

To attach an MD400 series scanner to a system unit, follow these steps:

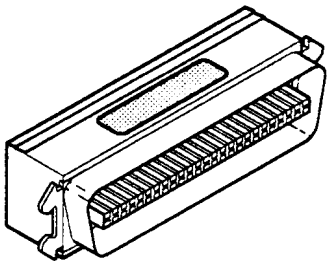
1. Locate the SCSI port at the rear of the system unit or on the SCSI expansion box.
2. Connect one end of the SCSI cable to the port, as shown in Figure C–3.

Figure C–3 Connecting the SCSI Cable to the CPU



If there is a SCSI terminator attached to the port similar to the one shown in Figure C–4, remove the terminator. Connect the terminator to the SCSI port of last device on the SCSI device chain.

Figure C–4 SCSI Terminator



3. Connect the other end of the SCSI cable to one of the SCSI outlets at the rear of the scanner.
4. Enter the SHOW DEVICE command to confirm that the scanner is now operational and recognized by the system.

   If you have configured the scanner correctly, it appears in the list of devices installed on your system. Figure C–5 shows a device listing that contains a successfully configured scanner.

Figure C–5 Device Table After Installing the Scanner

```
VMS/VMB       ADDR   DEVTYP  NUMBYTES  RM/FX  WP  DEVNAM  REV
-------       ----   ------  --------  -----  --  ------  ---
ESA0          08-00-2B-07-E3-83

DKA300        A/3/0  DISK    104 MB    FX         RZ23L   xxxx
MKA500        A/5/0  TAPE    -----     RM    WP

...HOSTID...  A/6 INITR

JKA000        A/0/0  SCAN    332 MB    FX         IS410   ID0D
DKA200        A/2/0  DISK    104 MB    FX         RZ23L
DKA400        A/4/0  RODISK  205 MB    RM    WP   RRD42
```

If you do not see the scanner listed in the device table, recheck all the switch settings and cable connections, then repeat step 4.

Notes

The MD410 scanner has a device name of IS410. The MD400 scanner has a device name of IS50.

The VMS/VMB name has a prefix of JK. JK is the generic prefix given to all devices whose driver is not part of the VMS device driver set. After you connect the scanner using SYSGEN, the scanner appears in the device table as an LK device. This means that the LKDRIVER is the device driver for the scanner.

Activating the System

Once the scanner appears in the device table, you can boot the system. After you boot the system, you must connect the scanner to the LKDRIVER using SYSGEN. Enter the following command:

```
$  MCR SYSGEN CONNECT LKbn000:/NOADAPTER
```

where:

LK is the scanner driver.
b is the bus identifier.
n is the SCSI port identifier set on the DIP switches.

00 is the logical unit number, which is always zero.

Note

Once you install DECimage Scan Software, the command file IIS$SERVER_STARTUP.COM is placed in the SYS$STARTUP. This file contains the connect statement with a SCSI ID of LKb000. If the SCSI ID of your scanner is not LKb000, edit this file and modify the SCSI ID.

Refer to Chapter 3 for more information on editing the system files.

Now the scanner is recognized as a device on the local system. Refer to the *DECimage Scan Software User's Guide* for instructions on selecting and activating the scanner using the DECimage Scan Software menu interface.