Compaq ACMS for OpenVMS Version 4.4 Installation Guide

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This document provides information about installing the *Compaq ACMS for OpenVMS, Version 4.4* software.

Revision/Update Information:	This manual supersedes the *Compaq ACMS for OpenVMS Version 4.3 Installation Guide*.
Operating System:	Compaq OpenVMS Alpha, Version 6.2, 7.2–1, or 7.3 Compaq OpenVMS VAX, Version 6.2, 7.2, or 7.3
Software Version:	*Compaq ACMS for OpenVMS*, Version 4.4

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The OpenVMS documentation set is available on CD-ROM.

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Preface

This installation guide describes how to install kits for the following *Compaq ACMS for OpenVMS* (ACMS) product packages:

- ACMS Development System
- ACMS Run-Time Option
- ACMS Remote Access Option

Intended Audience

Read this manual if you are responsible for installing and maintaining software for ACMS. To perform the installation procedures described in this manual, you must have access to a privileged OpenVMS system manager's account and be familiar with the OpenVMS installation procedure, VMSINSTAL.

Document Structure

This manual has the following chapters and appendixes:

Chapter 1	Describes ACMS kits and licenses, the recommended order for updating layered products used with ACMS, and special dependencies and considerations.
Chapter 2	Explains how to prepare your system for installing ACMS.
Chapter 3	Describes how to install the ACMS software and sample applications and run the Installation Verification Procedure (IVP). It also tells you how to recover from system and installation failures.
Chapter 4	Describes postinstallation steps that prepare your OpenVMS system for running ACMS.
Chapter 5	Describes how to run the ACMS IVP separately from the installation procedure.
Chapter 6	Describes how to deinstall ACMS.
Appendix A	Contains a sample installation for each ACMS development kit.
Appendix B	Contains information on registering and loading your ACMS license.
Appendix C	Describes how to modify ACMS help and message text, for example, to translate them to a language other than English.
Appendix D	Describes considerations for creating DECdtm log files.

Related Documents

Consult the *OpenVMS System Manager's Manual* for information about installing or upgrading layered product software on the OpenVMS operating system.

Three other manuals contain information about managing your ACMS system once it is installed:

- *Compaq ACMS for OpenVMS Managing Applications*

  Explains how to start and stop the ACMS system, monitor system performance, and perform some tuning operations. This manual also discusses installing applications, and authorizing users, applications, and devices.

- *Compaq ACMS for OpenVMS Version 4.4 Release Notes*

  Contains information about new features and current restrictions for ACMS. *Compaq ACMS for OpenVMS Version 4.4 Release Notes* are available to you on line. They are stored in the file SYS$HELP:ACMS044.RELEASE_NOTES during the ACMS installation procedure. The installation procedure allows you to print *Compaq ACMS for OpenVMS Version 4.4 Release Notes* at the start of the installation.

- *Compaq ACMS for OpenVMS Remote Systems Management Guide*

  Describes how to install and use the Remote Manager (and Remote Manager web agent) to manage Compaq ACMS for OpenVMS software systems remotely.

Compaq ACMS for OpenVMS Systems Interface Programming gives directions for building the BLISS library file and an environment file for Pascal agents.

For additional information on the compatibility of other software products with this version of ACMS, refer to the *Compaq ACMS for OpenVMS Software Product Description* (SPD 25.50.*xx*).

For additional information about the Open Systems Software Group (OSSG) products and services, access the following OpenVMS World Wide Web address:

`http://www.compaq.com/openvms`

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Compaq welcomes your comments on this manual.

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To reach the OpenVMS documentation website, click the Documentation link.

If you need help deciding which documentation best meets your needs, call 1–800–ATCOMPA.

Conventions

The following conventions are used in this manual:

Ctrl/*x*	A sequence such as Ctrl/*x* indicates that you must press and hold the key labeled Ctrl while you press another key or a pointing device button.
Return	In examples, a key name enclosed in a box indicates that you press a key on the keyboard. (In text, a key name is not enclosed in a box.) In the HTML version of this document, this convention appears as brackets rather than a box.
. . .	A vertical ellipsis indicates the omission of items from a code example or command format; the items are omitted because they are not important to the topic being discussed.
`Monospace text`	Monospace type indicates code examples and interactive screen displays. In the C programming language, monospace type in text identifies the following elements: keywords, the names of independently compiled external functions and files, syntax summaries, and references to variables or identifiers introduced in an example. In the HTML version of this document, this text style may appear as italics.
-	A hyphen at the end of a command format description, command line, or code line indicates that the command or statement continues on the following line.
numbers	All numbers in text are assumed to be decimal unless otherwise noted. Nondecimal radixes—binary, octal, or hexadecimal—are explicitly indicated.
italic text	Italic text indicates important information, complete titles of manuals, or variables. Variables include information that varies in system output (Internal error *number*), in command lines (/PRODUCER=*name*), and in command parameters in text (where *dd* represents the predefined code for the device type).
UPPERCASE	Uppercase text indicates the name of a routine, the name of a file, the name of a file protection code, or the abbreviation for a system privilege.
<lowercase>	In command format descriptions, lowercase text in angle brackets indicates a required clause or phrase.

References to Products

The ACMS documentation set to which this manual belongs often refers to certain products by abbreviated names:

Abbreviation	Product
ACMS	*Compaq ACMS for OpenVMS Alpha*, and *Compaq ACMS for OpenVMS VAX*
Ada	Compaq Ada for OpenVMS Alpha Systems, and Compaq Ada for OpenVMS VAX Systems
BASIC	Compaq BASIC for OpenVMS, and Compaq BASIC for OpenVMS
C	Compaq C for OpenVMS Alpha Systems, and Compaq C for OpenVMS VAX Systems
CDD	Oracle CDD/Administrator, and Oracle CDD/Repository
COBOL	Compaq COBOL for OpenVMS Alpha Systems, and Compaq COBOL for OpenVMS VAX Systems
DATATRIEVE	Compaq DATATRIEVE for OpenVMS Alpha, and Compaq DATATRIEVE for OpenVMS VAX
DBMS	Oracle CODASYL DBMS
DECforms	Compaq DECforms for OpenVMS
FORTRAN	Compaq Fortran for OpenVMS Alpha Systems, and Compaq Fortran for OpenVMS VAX Systems
OpenVMS	The Compaq OpenVMS Alpha operating system, and the Compaq OpenVMS VAX operating system
Pascal	Compaq Pascal for OpenVMS Alpha, and Compaq Pascal for OpenVMS VAX
PL/I	PL/I for OpenVMS Systems
Rdb	Oracle Rdb
SQL	The SQL interface to Oracle Rdb
TDMS	Compaq TDMS for OpenVMS VAX

Note

The DECtrace product is the predecessor to the Oracle Trace product. Some information in the ACMS documentation, particularly in some examples, refers to DECtrace. Except where version specific, the information applies to the Oracle Trace product as well and, as you read the information, you can use the product name Oracle Trace instead of the product name DECtrace with no significant difference in meaning.

1
Planning the ACMS Installation

This chapter describes the available ACMS kits. It also discusses the dependencies among ACMS Version 4.4, the OpenVMS operating system, and other layered products, and considerations for upgrading and using these products in a distributed environment.

The Part List, found in the transparent plastic envelope in your kit, specifies 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 Compaq representative.

1.1 Types of ACMS Kits

ACMS is available in three different kits:

- ACMS Development Kit

  This kit provides all the features of ACMS. You can define, build, and debug multiple-step tasks, task groups, menus and applications, as well as use the ACMS task queuing facilities. You can use DECforms or TDMS as standard presentation services, or use the Request Interface (RI) and Systems Interface (SI) to access other presentation services. You are provided with samples of ACMS applications using standard presentation services and the Request Interface.

  The development kit also includes the features provided by the run-time and remote-access kits.

- ACMS Run-Time Kit

  This kit allows you to use existing applications or programs under the control of ACMS. It also allows you to define and debug menus, applications, task groups, and single-step tasks that use DCL servers, if Oracle CDD is present when this kit is installed. It allows ACMS users to sign in and select tasks that are implemented on the local node as well as remote nodes. The run-time kit allows you to use the ACMS Queued Task Initiator (QTI) to submit tasks to run on the local node as well as remote nodes.

  The run-time kit also includes the features provided by the remote-access kit.

- ACMS Remote-Access Kit

  This kit is suitable for installation on a network node that does not have any ACMS applications running on it, but requires access to ACMS applications running on another network node. The remote-access kit allows users to sign in to ACMS and select tasks on remote nodes, and handles the terminal I/O associated with those tasks. The remote access kit allows you to use the ACMS QTI to submit tasks to run on remote nodes.

1.2 ACMS Licenses

Each ACMS kit has an unlimited-use ACMS license associated with it. Table 1–1 shows the licenses that are applicable to each ACMS kit.

Table 1–1 ACMS Licenses

ACMS Kit	Unlimited Use	Concurrent Use
Development System	ACMS	Not available
Run-Time Option	ACMS-RT	ACMS-RT-USER
Remote-Access Option	ACMS-REM	ACMS-REM-USER

For more information about these ACMS licenses, refer to *Compaq ACMS for OpenVMS Managing Applications*.

To install an ACMS Version 4.4 kit, you must register and load an ACMS software license, using the OpenVMS License Management Facility (LMF). You must register and load your ACMS license *before* you perform the installation.

For more information on registering and loading your ACMS license, refer to Appendix B.

1.3 Required Operating System Components

Compaq ACMS for OpenVMS Alpha Version 4.4 requires OpenVMS Alpha Version 6.2, 7.2–1, or 7.3.

Compaq ACMS for OpenVMS VAX Version 4.4 requires OpenVMS VAX Version 6.2, 7.2, or 7.3.

For distributed processing with ACMS, you must have DECnet software installed.

Note

If you install ACMS Version 4.4 on an Alpha system running a version of OpenVMS Alpha lower than OpenVMS Alpha Version 7.*x*, you must reinstall ACMS Version 4.4 after you upgrade to OpenVMS Alpha Version 7.*x*.

1.4 Layered Product Requirements

The ACMS Version 4.4 installation procedure and IVP interact with a number of OpenVMS layered products. Some of these products are required, while others are optional.

Each of these layered products has a minimum version (based on the OpenVMS version) that is supported with ACMS Version 4.4. The ACMS Version 4.4 Software Product Description (SPD) identifies the minimum layered product versions required to successfully install ACMS Version 4.4 and run the IVP.

If a product is required, you must make the minimum version available before you can install ACMS. If a product is not required, you do not need to make it available before installing ACMS, however, you must upgrade it to the minimum required version before using it with ACMS.

1.4.1 Determining Software Version Numbers

Before installing ACMS Version 4.4, identify the other products that you need to upgrade. The ACMS SPD contains a complete list of the products that are compatible with this version of ACMS, including information about the minimum version of OpenVMS and layered products that interact with ACMS Version 4.4.

To check the current version of the products, execute the DCL commands ANALYZE/IMAGE and SEARCH in the following formats:

ANALYZE/IMAGE *file-name* /OUTPUT=ACMS_VERSION.TMP

SEARCH ACMS_VERSION.TMP *"image file id"*

In the ANALYZE/IMAGE command, substitute for *file-name* the file name listed in Table 1–2 or Table 1–3 for each product.

Table 1–2 Compatible Products Image Files for OpenVMS Alpha

Product	File Name
DECforms	SYS$LIBRARY:FORMS$MANAGER.EXE
LSE (DECset)	SYS$SYSTEM:LSEDIT.EXE
Oracle CDD	SYS$LIBRARY:CDDSHR.EXE
Oracle CODASYL DBMS	SYS$LIBRARY:DBMSHR.EXE
Oracle Rdb	SYS$LIBRARY:RDBSHR.EXE
Oracle Trace	SYS$LIBRARY:EPC$FUNCSHRP.EXE
TP Desktop Connector	SYS$SYSTEM:ACMSDI$SERVER.EXE

Table 1–3 Compatible Products Image Files for OpenVMS VAX

Product	File Name
DECforms	SYS$LIBRARY:FORMS$MANAGER.EXE
LSE (DECset)	SYS$SYSTEM:LSEDIT.EXE
Oracle CDD	SYS$LIBRARY:CDDSHR.EXE
Oracle CODASYL DBMS	SYS$LIBRARY:DBMSHR.EXE
Oracle Rdb	SYS$LIBRARY:RDBSHR.EXE
Oracle Trace	SYS$LIBRARY:EPC$FUNCSHRP.EXE
TDMS	SYS$LIBRARY:TSSSHR.EXE
TP Desktop Connector	SYS$SYSTEM:ACMSDI$SERVER.EXE

The line that OpenVMS displays in response to the SEARCH command shows the current version of the product. The following example shows that the system has LSE Version 4.2 installed:

```
$ ANALYZE/IMAGE SYS$SYSTEM:LSEDIT.EXE /OUTPUT=ACMS_VERSION.TMP
$ SEARCH ACMS_VERSION.TMP "image file id"
                 image file identification: "LSEDIT V4.2-17"
```

1.4.2 Requirements for Oracle CDD

Oracle CDD/Repository Version 7.0 is supported by ACMS Version 4.4.

The following paragraphs discuss the requirements for Oracle CDD when installing the different ACMS kit types.

If you are installing the ACMS development kit, at least the minimum version of CDD as identified in the ACMS SPD must be installed on your system. If CDD is not installed or if a lower version of CDD is installed, VMSINSTAL terminates the installation procedure.

If you are installing the ACMS run-time kit, CDD is optional; however, the minimum version of CDD is required for the run-time kit to be fully functional. Specifically, if you install the ACMS run-time kit with CDD available, you can create new applications and menus and modify existing applications and menus, on your ACMS run-time system. If you install the ACMS run-time kit without CDD available, you can use only existing applications and menus; you cannot create new ones on your run-time system. If you subsequently install CDD, you can make the ACMS run-time CDD-related features available by reinstalling the ACMS Version 4.4 run-time kit and choosing the CDD-related files option at the beginning of the installation.

If you are installing the ACMS remote-access kit, CDD is not required.

1.4.3 Requirements for LSE

LSE is an optional layered product for all ACMS kits. If the minimum version (or a higher, allowed version) of LSE as identified in the ACMS SPD is not available when you install ACMS, LSE templates for ACMS Version 4.4 are not provided on your system. If you subsequently install LSE, you can make the ACMS Version 4.4 LSE templates available by reinstalling the ACMS Version 4.4 kit and choosing the LSE update option at the beginning of the installation.

1.4.4 Requirements for TP Desktop Connector

Compaq TP Desktop Connector for OpenVMS is an optional layered product for ACMS. If you are installing TP Desktop Connector on a system with ACMS Version 4.0 or higher, you must have at least the minimum version of the TP Desktop Connector as identified in the ACMS SPD.

If the ACMS installation runs while TP Desktop Connector is running, the results are unpredictable. Use the following command to shut down TP Desktop Connector before you begin an installation of ACMS:

```
$ @SYS$STARTUP:ACMSDI$SHUTDOWN.COM
```

1.4.5 Recommended Order for Installing Software

To ensure problem-free installation of software on your system, install the OpenVMS operating system and layered products in the following order:

1. OpenVMS
2. LSE
3. Oracle Rdb
4. Oracle Trace
5. Oracle CDD
6. Oracle CODASYL DBMS

7. TDMS (VAX only)
8. DECforms
9. ACMS
10. TP Desktop Connector

1.5 Upgrading Software in a Distributed System

Upgrading software in a distributed transaction processing system is complex because of the dependencies among the software products. The process becomes even more complex when you take into account the dependencies that are created from multiple versions that exist for each of the individual software products.

Because you cannot upgrade all nodes in a distributed environment simultaneously, and because the upgrade process might last several days, a clear methodology is required to ensure smooth and timely introduction of new software versions.

1.5.1 Configuration Issues

A simple, distributed configuration in a TP system consists of an ACMS front-end node and an ACMS back-end node. You can configure ACMS on each node for the processing of specific tasks. Likewise, the roles of the layered products on each node are distinct. For simple configurations, the upgrade process is straightforward:

1. Upgrade the software on the front-end nodes.
2. Upgrade the software on the back-end nodes.

Upgrading in this order ensures that the system delivers the same version of software to the front-end node and the back-end node.

However, this simple rule cannot be applied to a configuration in which a node is both a front end and a back end. To successfully upgrade a more complex configuration, apply these two key points:

- A component built by a previous software version is compatible with the upgraded version of the software.

  For example, DECforms Version 1.4 can execute a form created by DECforms Version 1.3, without any modification. You can also copy this component from a node on which DECforms Version 1.3 is installed to a node with DECforms Version 1.4. The DECforms Version 1.3 form executes correctly, as long as you do not rebuild the form using Version 1.4.

- Do not rebuild a component under the new software version until you upgrade all nodes to which it may possibly be shipped.

To upgrade software in a distributed system, follow these steps:

1. Upgrade all software on the front-end-only nodes.
2. Upgrade all software on nodes that are both front-end and back-end nodes.
3. Upgrade all software on back-end-only nodes.

Note

Do not modify by recompilation any application components (unless required by the installation procedure) until you upgrade all the nodes that compose the distributed application.

1.6 Product Dependencies

Keep in mind the following dependencies when upgrading software, especially in a distributed environment:

- ACMS

  ACMS copies DECforms forms (.FORM) and shareable images (.EXE), TDMS request library files (.RLB), and ACMS application database files (.ADB) from back-end to front-end nodes, if the versions or dates of the files on the back end are more recent.

- Oracle CDD

  CDD versions are interoperable in a distributed environment as long as features of the new version are not requested when using the previous version. CDD is not referenced in the run-time system by the layered products (except possibly by Rdb and DBMS, although this is not advised) except in the case of module recompilation. However, do not recompile or add features until the upgrade is complete.

- DECforms

  See the DECforms SPD for DECforms dependencies.

- OpenVMS Alpha operating system

  When upgrading major versions of the OpenVMS Alpha operating system, you must reinstall ACMS. This applies when upgrading the OpenVMS Alpha operating system from Version 6.*x* to Version 7.*x*.

  It is not necessary to reinstall ACMS on OpenVMS VAX systems that have been upgraded from OpenVMS VAX Version 6.*x* to Version 7.*x*.

- Oracle CODASYL DBMS

  Remote access between different versions of Oracle CODASYL DBMS is possible as long as features unique to the newer version are not requested of a previous version.

- Oracle Rdb

  Rdb modules are upwardly compatible; for example, modules compiled under Rdb Version 6.0 execute correctly if Rdb is upgraded to Version 7.0 on the system. Remote access between different versions of Rdb is possible as long as features unique to the newer version are not requested of the previous version.

  Because Rdb is the base data repository for many products, particularly CDD and Oracle Trace in a transaction processing system, you must convert all databases (RMU/CONVERT) used by these products after you upgrade Rdb. Refer to the product-specific information for more details.

- Oracle Trace

  Oracle Trace depends on Oracle Rdb since it provides the base data repository, as mentioned above. Refer to the product-specific information for more details.

- Pascal and PL/I (VAX only)

  Changes were made to the Pascal and PL/I include files after ACMS Version 3.1. Some changes may not be compatible with existing programs. If you are upgrading from ACMS Version 3.1, save a copy of the ACMS Version 3.1 definition files, SYS$LIBRARY:ACMSPLI.TLB and SYS$LIBRARY:ACMSPAS.PAS, before installing ACMS Version 4.4, and use these files until you make the necessary modifications to use the correct definitions.

- TDMS (VAX only)

  TDMS request libraries generated since the release of TDMS Version 1.7 are compatible with all later versions of TDMS.

2
Preparing to Install ACMS

This chapter discusses the preparations and requirements necessary for installing ACMS Version 4.4.

ACMS provides online release notes and gives you the option of printing or displaying the release notes during the installation procedure. Compaq strongly recommends that you read the release notes before proceeding with the installation in case they contain some important information regarding the installation procedure.

The sections in this chapter describe requirements that are checked by the ACMS installation procedure. With the exception of optional layered products, your system must meet these requirements before you can install ACMS successfully.

2.1 Backing Up Your System Disk

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

Use the backup procedures that have been established at your site to do this backup. For details about performing a system disk backup, see the section on the Backup Utility in the OpenVMS documentation set.

2.2 Software Versions

As discussed in Section 1.4, ACMS Version 4.4 requires minimum versions of a number of layered products. The installation procedure lists all layered products that do not meet or exceed the required minimum version. The ACMS Software Product Description (SPD) identifies the minimum software versions of required and optional products. If any required products are below minimum version, the installation fails.

2.2.1 Installed Images

In order to use other layered products during the installation of ACMS, certain executable images related to those products must be installed using the DCL command INSTALL. These images are normally installed by executing the startup procedure for the product. These startup procedures should be executed automatically when the system is started. Startup procedures are found in SYS$STARTUP.

To determine whether an image is installed, execute the following DCL command:

```
$ INSTALL LIST file-specification
```

If an image is not installed, you must execute the related product startup procedure; also ensure that this startup procedure is executed automatically during system startup.

If you are installing the ACMS development kit, the CDD image SYS$LIBRARY:CDDSHR.EXE must be installed. If you are installing the ACMS run-time kit, this is optional; however, if the image is not installed, CDD-related files will not be made available. The CDD startup procedure is CDDSTRTUP.COM.

To use CDD, Rdb must also be available. Therefore, if you are installing the ACMS development kit, or if you plan to use the CDD-related function of the ACMS run-time kit, the Rdb image SYS$LIBRARY:RDBSHR.EXE must be installed. The Rdb startup procedure is RMONSTART.COM.

If you have Oracle Trace installed on your system and you want the ACMS facility definition updated during the installation, the Oracle Trace image SYS$LIBRARY:EPC$FUNCSHRP.EXE must be installed. The Oracle Trace startup procedure is EPC$STARTUP.COM.

2.3 Privileges

To install ACMS, you must be logged in to the SYSTEM account, or any account with similar privileges. The SYSTEM account has all the privileges required for the installation.

Table 2–1 lists the privileges required to execute various steps of the installation.

Table 2–1 Privilege Requirements

Step	Required Privileges
Installation procedure	BYPASS
Postinstallation procedure	BYPASS, SYSPRV, SYSNAM, CMEXEC, OPER
Installation Verification Procedure	OPER, SYSPRV, SYSNAM, CMKRNL

2.4 Disk Space

The following sections describe the approximate disk space requirements for a normal installation, and an option for installing ACMS on a system disk with limited space available.

2.4.1 Disk Space for a Normal Installation

Installing ACMS requires a certain amount of free storage space during the installation. Once ACMS is installed, less storage space is required. Table 2–2 and Table 2–3 summarize the approximate storage requirements for ACMS during and after installation. These tables reflect the installation of full kits, with all options selected.

Table 2–2 Disk Space Requirements for OpenVMS Alpha by Kit

Kit	Blocks During Installation	Blocks After Installation
Development	70,000	42,000
Run-time	38,000	33,000
Remote-access	27,000	24,000

Table 2–3 Disk Space Requirements for OpenVMS VAX by Kit

Kit	Blocks During Installation	Blocks After Installation
Development	43,000	30,000
Run-time	28,000	25,000
Remote-access	21,000	18,000

If you are installing only some parts of the ACMS kits, you need less disk space for the installation. Table 2–4 and Table 2–5 list the approximate amount of space required for each optional component of the ACMS kits.

Table 2–4 Disk Space Requirements for OpenVMS Alpha by Component

Component	Blocks During Installation	Blocks After Installation
Development software[1]	35,000	23,000
Run-time software	27,000	16,000
Remote-access software	22,000	14,000
ACMS samples	3,300	1,500
ACMS Request Interface samples	6,000	3,900
CDD-related files	6,000	5,500
LSE-related files	6,200	600

[1]Includes CDD-related files

Table 2–5 Disk Space Requirements for OpenVMS VAX by Component

Component	Blocks During Installation	Blocks After Installation
Development software[1]	30,000	17,200
Run-time software	21,000	12,600
Remote-access software	18,000	11,000
ACMS samples	1,900	1,300
ACMS Request Interface samples	2,900	2,700
CDD-related files	6,000	3,600
LSE-related files	600	100

[1]Includes CDD-related files

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

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

2.4.2 Installing on a Disk with Limited Space

If your system disk has less space than indicated in Section 2.4.1, and if you have previously installed ACMS on your system disk, you may be able to install ACMS Version 4.4 by using the VMSINSTAL Alternate Working Device (AWD) option.

The AWD option allows you to specify another disk device on which VMSINSTAL creates its temporary working directory.

For a normal Compaq ACMS for OpenVMS, Version 4.4 development kit installation, VMSINSTAL creates the following temporary working directory:

```
SYS$SPECIFIC:[SYSUPD.ACMSDEVA_044]
```

For an AWD installation of the same kit, the VMSINSTAL temporary working directory is:

```
alternate-working-device:[000000.ACMSDEVA_044]
```

The space required during installation indicated in Section 2.4.1 must be available on the alternate working device; this space will be available again after the installation is complete. You must still have at least 5000 blocks available on the system disk to use the AWD option.

Note

The AWD installation assumes that the ACMS Version 4.4 is no more than 5000 blocks larger than the ACMS kit currently installed on your system.

If the AWD installation does not work, you must make the required disk space available for a normal installation before installing ACMS.

To determine the number of free disk blocks on your system disk and alternate working device, execute the following commands:

```
$ SHOW DEVICE SYS$SYSDEVICE
$ SHOW DEVICE alternate-working-device
```

2.5 Disk Quotas

If disk quotas are enabled on the system disk, the ACMS Installation Verification Procedure (IVP) fails. The ACMS installation procedure normally schedules the IVP to execute automatically after the installation is completed. However, if disk quotas are enabled, the installation procedure cancels the IVP and notifies you. You can choose to stop the installation and address the issue, or continue the installation and execute the IVP manually at a later time.

To determine whether disk quotas are enabled, execute the following DCL command:

```
$ SHOW QUOTA/DISK=SYS$SYSDEVICE
```

2.6 System Parameters

Table 2–6 and Table 2–7 list the minimum required 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 2–6 Required System Parameter Values for OpenVMS Alpha

System Parameter	Value
CLISYMTBL[1]	500
GBLPAGES[2]	*n* + 6,000
GBLPAGFIL	2,048
GBLSECTIONS[2]	*n* + 55
PQL_DASTLM[3]	20
PQL_DBIOLM[3]	12
PQL_DDIOLM[3]	20
PQL_MDIOLM[3]	20
VIRTUALPAGECNT	19,000

[1]The CLISYMTBL dynamic system parameter must be set to a minimum value of 500 during the installation. If the CLISYMTBL setting is set to a value less than 500, you must reset the value to 500 or more before installing ACMS. You can lower the setting to its original value once the installation is finished.

[2]The *n* variable refers to the system parameter values that are currently in use. To install ACMS, the allocated system parameter value must be less than the sum of n plus the number indicated. The numbers indicated represent the unused portion of these parameters. (See Section 2.6.2.)

[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.

Table 2–7 Required System Parameter Values for OpenVMS VAX

System Parameter	Value
CLISYMTBL[1]	500
GBLPAGES[2]	*n* + 3,500
GBLPAGFIL	2,048
GBLSECTIONS[2]	*n* + 55
PQL_DASTLM[3]	20
PQL_DBIOLM[3]	12
PQL_DDIOLM[3]	20

[1]The CLISYMTBL dynamic system parameter must be set to a minimum value of 500 during the installation. If the CLISYMTBL setting is set to a value less than 500, you must reset the value to 500 or more before installing ACMS. You can lower the setting to its original value once the installation is finished.

[2]The *n* variable refers to the system parameter values that are currently in use. To install ACMS, the allocated system parameter value must be less than the sum of n plus the number indicated. The numbers indicated represent the unused portion of these parameters. (See Section 2.6.2.)

[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.

(continued on next page)

Table 2–7 (Cont.) Required System Parameter Values for OpenVMS VAX

System Parameter	Value
PQL_MDIOLM[3]	20
VIRTUALPAGECNT	19,000

[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.

The following sections describe how to check system parameter values, calculate values for the GBLPAGES and GBLSECTIONS system parameters, change parameter values with the OpenVMS AUTOGEN command procedure, and set the CLISYMTBL dynamic system parameter with the OpenVMS System Generation Utility (SYSGEN).

2.6.1 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 each system parameter. Make sure that the values displayed equal or exceed the value of each parameter listed in Table 2–6 or Table 2–7. The following command displays the value for the VIRTUALPAGECNT system parameter:

```
SYSGEN> SHOW VIRTUALPAGECNT
Parameter Name       Current   Default    Min.    Max.   Unit  Dynamic
--------------       -------   -------   ------  ------  ----  -------
VIRTUALPAGECNT        270144      9216    512    1200000 Pages
```

This example shows that the current value for VIRTUALPAGECNT is 270144.

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

2.6.2 Calculating the Values for GBLPAGES and GBLSECTIONS

To install and run ACMS, you must set the correct values for the GBLPAGES and GBLSECTIONS system parameters.

The values for GBLPAGES and GBLSECTIONS in Table 2–6 and Table 2–7 (excluding the value of n) indicate the number of unused pages or sections you must have available on your system for the installation to process successfully. To calculate whether your system has a sufficient number of unused global pages and global sections, perform the following steps:

1. Show the current free global pages and global sections using the following DCL commands:

   ```
   $ WRITE SYS$OUTPUT F$GETSYI("FREE_GBLPAGES")
   3420
   $ WRITE SYS$OUTPUT F$GETSYI("FREE_GBLSECTS")
   72
   ```

2. Determine if the number of unused pages (3420 in the example) is equal to or greater than the number specified in Table 2–6 or Table 2–7. If the number of unused pages is less than the number listed in the table, increase the allocation value for GBLPAGES.

3. Determine if the number of unused global sections (72 in the example) is equal to or greater than the number specified in Table 2–6 or Table 2–7. If the value is less than the number required, increase the allocation value of the GBLSECTIONS parameter.

Section 2.6.3 describes the procedures for increasing these values as well as those of other system parameters. Refer to the OpenVMS documentation on system management and operations for more information.

2.6.3 Changing System Parameter Values with AUTOGEN

Use the AUTOGEN command procedure to change system parameters. To change system parameters with AUTOGEN, you must edit the following file:

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

For example, to change the setting for the GBLPAGES system parameter, add this line to the file:

```
GBLPAGES = 100000
```

Now, run the AUTOGEN procedure to recalculate your system parameters. Enter the following command at the DCL prompt:

```
$@SYS$UPDATE:AUTOGEN SAVPARAMS SETPARAMS FEEDBACK
```

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

2.6.4 Setting the CLISYMTBL Dynamic System Parameter

If the CLISYMTBL system parameter value for your system is less than 500, change the setting by entering the following series of commands:

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

CLISYMTBL is a dynamic parameter, which means that you do not have to reboot the system to make the change take effect. The new value for CLISYMTBL becomes effective when you enter the SYSGEN command WRITE ACTIVE.

If you do nothing further, the new value for CLISYMTBL remains in effect until the next time you reboot the system, at which time the old value for CLISYMTBL is restored.

If you want to make the new CLISYMTBL value permanent, enter the following SYSGEN command:

```
SYSGEN> WRITE CURRENT
```

The WRITE CURRENT command writes the new value for CLISYMTBL into the SYSGEN database on disk, so that it is available when the system is rebooted.

To exit from SYSGEN, enter the following command:

```
SYSGEN> EXIT
```

Note

If you changed the value of CLISYMTBL, log out and log back in so that the new value can take effect.

2.7 Process Account Quotas

The account you use to install ACMS must have sufficient quotas to enable you to perform the installation. Table 2–8 summarizes the process quotas required to perform the installation.

Table 2–8 Process Account Quotas

Account Quota	Required Value
ASTLM	24
BIOLM	18
BYTLM	32,768
DIOLM	18
ENQLM	2,000
FILLM	200
PRCLM	10
PGFLQUO	12,800

User account quotas are stored in the file SYSUAF.DAT. Use the OpenVMS 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 AUTHORIZE prompt (UAF>), enter the SHOW command with an account name to check a particular account. For example:

```
UAF> SHOW SYSTEM
```

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

MODIFY account-name/quota-name=nnnn

The following example changes the FILLM quota for the SYSTEM account and then exits from the Authorize Utility:

```
UAF> MODIFY SYSTEM/FILLM=200
UAF> EXIT
```

After you exit from the utility, the OpenVMS 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 OpenVMS documentation on system management and operations.

2.8 Time Required for Installation

Table 2–9 lists the approximate time required for installing each ACMS kit.

Note

Installation time depends heavily on installation options, system load, hardware, and kit media. The times listed in Table 2–9 were measured for full installations on a standalone DEC 3000 (Alpha) system with disk-resident kits. Your time may vary.

Table 2–9 Timetable for Installing ACMS

Kit	Installation Time[1]	IVP Time
Development	7 minutes	2 minutes
Run-time	4 minutes	2 minutes
Remote-access	2 minutes	1 minute

[1]If you are using the VMSINSTAL option AWD, multiply these times by 3.

2.9 ACMS$IVP User Authorization

The ACMS installation checks for the presence of the OpenVMS user account ACMS$IVP. If this account does not exist, you are asked for information needed to create it. The ACMS$IVP account is used to run the ACMS Installation Verification Procedure.

Among the information requested for this account is a unique user identification code (UIC) in the form [*ggggg,nnnnnn*], where *ggggg* is an octal user group number in the range 1–37776, and *nnnnnn* is an octal user number in the range 1–177776. Additionally, the group number cannot be a system group number.

Enter the following commands to list the UICs currently in use on your system:

```
$ MCR AUTHORIZE
UAF> LIST * /BRIEF
```

The result of these commands is that all UICs in use on your system are listed in the file SYSUAF.LIS, in your default directory. You can then examine this listing to determine a unique UIC for the ACMS$IVP account.

On your system, a certain range of group numbers has been reserved for system users. To determine this range, execute the following commands:

```
$ MAXSYS = F$GETSYI("MAXSYSGROUP")
$ SHOW SYMBOL MAXSYS
```

The value you supply for the octal group number in the ACMS$IVP UIC must be greater than the octal value of the symbol MAXSYS. The following example shows that the maximum system group number is octal 10; therefore, you must specify a group number for the ACMS$IVP UIC that is in the range 11–37776:

```
$ MAXSYS = F$GETSYI("MAXSYSGROUP")
$ SHOW SYMBOL MAXSYS
  MAXSYS = 8   Hex = 00000008   Octal = 00000000010
```

3
Installing ACMS

This chapter describes how to install the ACMS software. Section 3.2 contains a step-by-step description of the installation procedure.

3.1 Installation Log

A log of your installation is kept in the following file:

```
SYS$COMMON:[SYSUPD]ACMS044_INSTALLATION.LOG
```

In particular, if the ACMS installation fails because prerequisites were not met, this log contains a list of those prerequisites. You can use it as a check list of items to address before you reinstall ACMS.

In addition, after the installation is completed, a list of the files created by the installation is stored in the following file:

```
SYS$COMMON:[SYSEXE]ACMS044_FILES.DAT
```

3.2 Installation Procedure

ACMS provides online release notes. The prompt to display or print the release notes before the installation appears in the installation procedure, if you invoke VMSINSTAL with the OPTIONS N parameter. For information on accessing the release notes after the installation, refer to Section 3.4.

The ACMS installation process is divided into five phases:

- The first phase consists of invoking VMSINSTAL and supplying information such as which kit to install, where the kit resides, and other installation options. Section 3.2.1 explains the first phase.
- The second phase consists of a series of questions, checks, and informational messages related to ACMS. This phase ensures that the installation environment is sufficient to support the actual installation work that occurs in the third phase. The second phase ends when you are shown a summary of what happens in the third phase and are asked whether you want to continue. Chapter 2 has information to help you answer the questions asked in the second phase; if you have not read Chapter 2 in preparation for this installation, do so now. Section 3.2.2 takes you step by step through the second phase of the installation.
- The third phase is the actual installation work. This usually includes restoring kit savesets, providing files to system directories, creating the ACMS$IVP user account, updating the LSE and Oracle Trace environments, updating DCL tables and help libraries, and other steps as enumerated at the end of the second phase. No user interaction is required during this phase. Section 3.2.3 explains the messages that you might see during this phase.

- The fourth phase is the ACMS postinstallation procedure. This procedure, which executes automatically after the ACMS software is installed, performs the minimum system management operations that are necessary to allow ACMS to be used on the system. Section 3.2.4 guides you through the postinstallation phase.
- The fifth phase is the ACMS Installation Verification Procedure (IVP). This procedure performs a series of exercises to ensure that ACMS is properly installed and usable on your system. Section 3.2.5 discusses the execution of the IVP.

To abort the installation procedure at any time, press Ctrl/Y. 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.

3.2.1 Invoking VMSINSTAL (First Phase)

To start the installation, log in to the SYSTEM account, and set default to the SYS$UPDATE directory:

```
Username: SYSTEM
Password:
$ SET DEFAULT SYS$UPDATE
```

Next, invoke VMSINSTAL. Use the following syntax to invoke VMSINSTAL:

@VMSINSTAL product-name device-name [OPTIONS option-1[,...]]

product-name
The installation name for the component. Enter one of the following:

- ACMSDEVA_044 — if you are installing the Alpha development kit.
- ACMSRTOA_044 — if you are installing the Alpha run-time kit.
- ACMSREMA_044 — if you are installing the Alpha remote-access kit.
- ACMSDEVV_044 — if you are installing the VAX development kit.
- ACMSRTOV_044 — if you are installing the VAX run-time kit.
- ACMSREMV_044 — if you are installing the VAX remote-access kit.

device-name
The name of the device on which you plan to mount the media. For example, CDROM is the device name for a tape drive.

OPTIONS
An optional parameter indicating that one or more VMSINSTAL options are being supplied. This parameter is followed by a space, and then the requested options. If multiple options are requested, separate them with commas (,); do not include spaces in the options list.

The following are VMSINSTAL options that you can use for the ACMS installation:

- N—The release notes option causes VMSINSTAL to prompt you to display or print the ACMS release notes during the installation. (Release notes are always copied to SYS$HELP during an installation, whether or not this option is specified.)

- AWD—The alternate working device option allows you specify an alternate disk device on which to create the temporary working directory used by VMSINSTAL during a product installation. This option allows you to perform an installation with fewer free blocks on the system disk than are otherwise required.

  Specify the AWD option using the following format:

  AWD=device

  Note

  Use the AWD option only if you have previously installed ACMS and you do not have sufficient space on your system disk to perform a normal installation. If you have not previously installed ACMS, you must have the disk space listed in Table 2–2 or Table 2–3 available to accommodate the ACMS software.

  See Section 2.4.2 for more information on using the AWD option.

VMSINSTAL has several other options; for information, see the OpenVMS documentation on software installation.

Note

ACMS does not support option R, the alternate root option.

On Alpha, the following command invokes VMSINSTAL and installs ACMS from the CD–ROM reader. This example uses the N option for printing or displaying release notes, and the AWD option to use disk DISK1 as an alternate working device:

```
$ @SYS$UPDATE:VMSINSTAL ACMSDEVA_044 CDROM OPTIONS N,AWD=DISK1

      OpenVMS AXP Software Product Installation Procedure V7.3

It is 22-JUN-2001 at 11:00.
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.

1. **System backup**

   VMSINSTAL asks the following question to ensure that your system disk is properly backed up:

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

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

2. **Mounting the media**

   VMSINSTAL instructs you to mount the ACMS Version 4.4 distribution media on the device you specified when you invoked VMSINSTAL. When you have mounted the media, answer YES to the question, ''Are you ready?'':

```
Please mount the first volume of the set on CDROM.
* Are you ready? Y
```

   If you entered the wrong device name when you invoked VMSINSTAL and need to restart the installation, answer NO in response to the question. To abort the installation for any other reason, press Ctrl/Y.

   VMSINSTAL then reads the media and begins the installation of ACMS. A message similar to the following appears:

```
%MOUNT-I-MOUNTED, ACMSDEVA_044 MOUNTED ON _$200$DISK1:

The following products will be processed:

  ACMSDEVA_ V4.4

       Beginning installation of ACMSDEVA_ V4.4 at 11:01

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

3. **Release notes**

   If you specified OPTIONS N when you invoked VMSINSTAL, you are now given several 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. You can terminate the display at any time by pressing Ctrl/C. Because the release notes are lengthy, it is recommended that you choose option 2 to print the release notes rather than reviewing them on line.

   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 enter a queue name or just press Return to send the file to the default output print queue SYS$PRINT.

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

   If you select option 4, VMSINSTAL does not display or print the release notes. Use the DCL command TYPE or PRINT to view the release notes in the following file:

```
SYS$HELP:ACMS044.RELEASE_NOTES
```

The release notes are copied to the SYS$HELP directory under all circumstances, regardless of your choice from the menu.

Note

The release notes for each version of ACMS are uniquely named so that release notes from multiple versions can be maintained. To facilitate comparison of various versions of ACMS, Compaq recommends not deleting release notes for previous versions of ACMS.

4. **Continuing the installation**

   The installation procedure now asks if you want to continue the installation. To continue, answer YES. Otherwise, press Return to stop the installation:

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

   After you read the release notes, you can restart the installation without being questioned about the release notes by removing OPTIONS N from the VMSINSTAL command. For example:

```
$ @SYS$UPDATE:VMSINSTAL ACMSDEVA_044 CDROM:
```

3.2.2 Product-Specific Questions (Second Phase)

This section discusses the questions and messages that apply specifically to the installation of ACMS Version 4.4. Depending on the kit and options that you choose, some of the steps listed here might not apply to your installation. This discussion assumes that you are installing the OpenVMS Alpha development kit (ACMSDEVA_044). See Appendix A for a sample installation of the ACMS OpenVMS Alpha development kit and of the ACMS OpenVMS VAX development kit.

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]. To choose the default response, press Return.

1. **Selecting installation options**

   The product-specific installation procedure begins execution. The following message is displayed:

```
The results of this installation are being logged in
  SYS$COMMON:[SYSUPD]ACMS044_INSTALLATION.LOG

Installing ACMS V4.4-0, development kit
```

   The procedure then asks what portions of the installation you want to perform. It lists the optional parts of the installation, and asks if you want to do the full installation. If you answer YES, the full installation is done; if you answer NO, you are asked individually whether you want to perform each optional part of the installation.

   In this example, the full installation is selected:

```
There are five optional parts to the ACMS development kit installation:

    o  ACMS component software
    o  ACMS LSE update
    o  ACMS samples
    o  ACMS Request Interface samples
    o  ACMS WBEM related files

The full installation includes all these parts.
If ACMS component software is selected, the ACMS WBEM related files will
also be copied.

To install the ACMS samples or the ACMS Request Interface samples, you must
install, or have previously installed, the ACMS component software.

* Do you want the full ACMS installation [NO]?: Y
```

2. **Checking installation prerequisites**

   The installation now checks that all ACMS installation prerequisites are met. These prerequisites are discussed in Chapter 2. The following message is displayed:

```
CHECKING INSTALLATION PREREQUISITES
-----------------------------------
```

   A message is also displayed for any prerequisites that are not met. For example, the following message indicates that the optional DECtrace software is not installed:

```
The following software products are not available, or are below the minimum
required version:

  Product               Required  Minimum version  Current version
  --------------------  --------  ---------------  ---------------
  LSE                   No        V4.3             V4.2-17

If products marked as nonrequired are to be used with ACMS, they should be
upgraded to at least the minimum version displayed before use.

(required and optional software checked)

(product licenses checked)

(installed images checked)

(privileges checked)

(disk space checked)

(disk quotas checked)

(system parameters checked)

(process account quotas checked)
```

   These messages are also logged in the following file:

```
SYS$UPDATE:ACMS044_INSTALLATION.LOG
```

   If any of the prerequisites are not met (with the exception of those related to optional software), the installation is aborted and a message similar to the following is displayed:

```
//////////////////////////////////////////////////////////////////////
Installation of ACMS is aborting because prerequisites are not met
  at 12:00 on 22-JUN-2001
//////////////////////////////////////////////////////////////////////
```

   At this point, address all the prerequisites that were not met, and then restart the installation of ACMS.

3. **Checking for previous ACMS installations**

   The installation procedure checks to see if you have previously installed ACMS. If you have, some cleanup from the previous installation might be necessary; this is the case, for example, if you previously installed a development kit, and you are now installing a run-time kit.

   The following message shows that no cleanup is necessary:

```
ACMS PREVIOUS INSTALLATION
--------------------------

    (previous installation of ACMS is compatible with current installation)
```

   If cleanup is necessary, you are given the option to see a list of files that will be removed from the system disk during the installation.

4. **Reviewing the LSE informational message**

   If you chose the LSE update option at the beginning of the installation, or if you chose the full installation, the installation advises you whether or not it can perform the LSE update. LSE cannot be updated if the optional LSE software is not present or if it is below the minimum version.

   The following message advises you that the LSE update will take place as requested:

```
ACMS LSE CHECK
--------------

    (LSE available -- LSE will be updated for ACMS)
```

   Later on you are asked if you want to continue the installation. If you were informed that LSE would not be updated, you can continue the installation, then install LSE and reinstall ACMS at your convenience, using the LSE update option; or you can stop the installation, install LSE, and then restart the complete ACMS installation.

5. **Reviewing the WBEM Files**

   The installation advises you whether or not the files necessary for the Compaq Web-Based Enterprise Management (WBEM) environment are already present. The Remote Manager web agent software cannot be used if the appropriate WBEM software is not present or if it is below the minimum version.

   The following message advises you that the verification of the WBEM files will take place:

```
ACMS WBEM CHECK
-------------------
```

6. **Reviewing the Oracle Trace informational message**

   The installation advises you whether or not it can perform the Oracle Trace update. Oracle Trace cannot be updated if the optional Oracle Trace software is not present or if it is below the minimum version.

   The following message advises you that the Oracle Trace update will take place:

```
ACMS Oracle Trace CHECK
-------------------

    (Oracle Trace available and will be updated for ACMS)
```

Later on you are asked if you want to continue the installation. If you were informed that Oracle Trace would not be updated, you can continue the installation. If Oracle Trace is not available, the ACMS facility definition is stored in a text library specific to Oracle Trace, which is used to update the Oracle Trace facility database when Oracle Trace is installed. You do not have to reinstall ACMS after installing Oracle Trace.

7. **Reviewing the CDD informational message**

   If you are installing a run-time kit, the installation advises you whether CDD is available. The availability of CDD affects the features provided by the run-time kit. See Section 1.4.2 for an explanation of these features.

   The following message advises you that CDD is available:

```
ACMS CDD CHECK
--------------

    (CDD available -- CDD-related files will be installed)
```

   Later on you are asked if you want to continue the installation. If you were informed that ACMS files related to CDD would not be installed, you can continue the installation, then install CDD and reinstall ACMS at your convenience, using the CDD related files option; or you can stop the installation, install CDD, and then restart the complete ACMS installation.

8. **Reviewing the old sample files informational message**

   If you chose the ACMS samples option at the beginning of the installation, or if you chose the full installation, the installation checks for old samples from a previous installation. These samples are stored in SYS$COMMON:[SYSHLP.EXAMPLES.ACMS], and they are superseded by examples supplied with this kit. They are deleted automatically during the installation.

   The following message advises you that no old samples were found:

```
ACMS OLD SAMPLE FILES
---------------------

    (no old sample files found)
```

   Later on you are asked if you want to continue the installation. If you want to preserve these old samples, stop the installation, rename the sample files to a different directory, and then reinstall ACMS.

9. **Reviewing the ACMS shutdown informational message**

   If you chose the ACMS component software option at the beginning of the installation, or if you chose the full installation, the installation checks for the ACMS shutdown procedure:

```
SYS$STARTUP:ACMSTOP.COM
```

   If this procedure is found, the ACMS installation procedure executes it to ensure that previously installed ACMS software is not running during the installation. This shutdown occurs after you choose to continue the installation in a subsequent step.

   The following message advises you that ACMSTOP.COM was found:

```
ACMS SHUTDOWN CHECK
-------------------

    (ACMSTOP.COM found -- ACMS will be shut down during installation)
```

Note

If you have previously installed ACMS on this system, and if ACMSTOP.COM is not found, ensure that the ACMS system is shut down before continuing with the installation.

10. **Reviewing the postinstallation procedure informational message**

    If you chose the ACMS component software at the beginning of the installation, or if you chose the full installation, the installation procedure advises you whether or not it can execute the postinstallation procedure automatically. The postinstallation procedure cannot be executed if you do not have the required privileges enabled.

    The following message advises you that the ACMS postinstallation procedure will be executed automatically:

```
ACMS POSTINSTALLATION PROCEDURE
------------------------------

    (postinstallation procedure will be run automatically after installation)
```

Note

Refer to Chapter 4 for important information on other steps to take before using ACMS on your system.

11. **Reviewing the system roots check informational message**

    The installation checks for ACMS files in system-specific roots. If you previously installed ACMS, certain files might exist in system-specific roots. With a few exceptions (for example, ACMSPAR.ACM) ACMS files should reside in cluster-common directories such as SYS$COMMON:[SYSLIB]. Some ACMS files might have migrated to system-specific roots as a result of maintenance or other activities performed on the previous version of ACMS. If ACMS files have migrated in this manner, and you then upgrade to a higher version of ACMS, you might subsequently encounter problems running ACMS across a cluster, such as problems related to a version mismatch or the inability to access new functionality on some nodes.

    The installation checks for ACMS files that might have migrated inadvertently to system-specific roots, and lists any files it finds. Compaq recommends that you check any files listed to ensure that they do not interfere with the proper operation of ACMS in the cluster. Table 3–1 lists the files that are checked.

Table 3–1 ACMS-Related Files Checked For in System Roots

Directory	Files
SYS$SYSTEM	ACM*.EXE, ACM*.DAT, SYSUAF.DAT
SYS$LIBRARY	ACM*.EXE, ACM*.COM
SYS$MANAGER	ACM*.COM
SYS$STARTUP	ACM*.COM

This example shows that no ACMS files were found in system-specific roots:

```
ACMS SYSTEM ROOTS CHECK
-----------------------

    (no ACMS-related files found in system-specific roots)
```

12. **Choosing to execute the IVP**

You are now asked whether you want to execute the ACMS Installation Verification Procedure (IVP). This question is asked if you are installing ACMS software (as opposed to installing samples or updating the LSE environment, for example).

Compaq recommends that you run the IVP automatically after the installation, to ensure that the installation was successful. Chapter 5 contains more information on the IVP, including how to execute it manually at a later time.

The following question is asked to determine whether you want to run the IVP automatically; press Return to accept the default answer, YES:

```
ACMS IVP
--------

* Do you want to execute the Installation Verification Procedure [YES]?
```

If you choose to execute the IVP, the installation now checks for the IVP user account ACMS$IVP. If the account ACMS$IVP does not exist, you are asked to supply a user identification code (UIC) and password for this account. The information you supply is used to create the account in the third phase of the installation.

This example shows how to supply a UIC and password for the ACMS$IVP account:

```
The ACMS$IVP account used to execute the IVP is not available.

  You must supply a UIC and password for this account so that it can be
  created; this must be done before the IVP can be executed.

  Please enter the UIC for the ACMS$IVP account, in the form [ggggg,nnnnnn]

* UIC: [400,200]

  Please enter a password of at least 8 characters, using only
  the following characters: ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789$_

* Password:
* Verification:
```

Note

The password and verification are not echoed when you type them.

Refer to Section 2.9 for more information on selecting a valid UIC for the ACMS$IVP account.

13. **Choosing to continue the installation**

At this time, the installation procedure lists the steps to complete the installation, and an approximate time for the rest of the installation. It then asks if you want to continue. If issues remain that you must address before the installation continues, answer NO to stop the installation.

The following example shows the work list for a typical development installation; the lists for run-time and remote-access installations are different.

```
SUMMARY OF THIS ACMS INSTALLATION
---------------------------------

The following steps will be taken to complete this installation:

o  The ACMS system will be shut down (via SYS$STARTUP:ACMSTOP.COM)
o  ACMS component software will be installed
o  WBEM environment will be updated for ACMS
o  LSE environment will be updated for ACMS
o  Oracle Trace facility database will be updated for ACMS
o  CDD-related ACMS files will be installed
o  ACMS samples will be installed
o  ACMS Request Interface samples will be installed
o  The ACMS postinstallation procedure will be executed
o  The ACMS IVP will be executed

The rest of this installation will take approximately 7 minutes.
Execution of the IVP will take approximately 2 minutes.

Note that this time is heavily dependent your system load, hardware
and kit media. The time mentioned was measured on a stand-alone DEC 3000
(Alpha)  system with a disk-resident kit.  Your time may vary.

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

Press Return to continue the installation.

3.2.3 Informational Messages (Third Phase)

In the third installation phase, the actual work of the installation takes place; restoring savesets, moving files, updating databases, and so on. This phase has no user interaction. At the beginning of the phase, a message similar to the following is displayed:

```
Installation of ACMS started
  at 11:02 on 22-JUN-2001
```

Following this message, the installation procedure displays a number of informational messages that report on the progress of the installation.

If any errors are encountered in this phase, the installation aborts and a message similar to the following is displayed:

```
//////////////////////////////////////////////////////////////////////
Installation of ACMS is aborting because errors were encountered
  at 13:25 on 22-JUN-2001
//////////////////////////////////////////////////////////////////////
```

If you receive this message, use information in previous error messages and the installation log to fix the problem, and then reinstall ACMS.

When the third phase is successfully completed, a message similar to the following is displayed:

```
    Installation of ACMS completed successfully
      at 11:07 on 22-JUN-2001

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

During the ACMS installation, VMSINSTAL operates in safety mode, which means that it defers file operations until the third phase has successfully completed. The VMSINSTAL-I-MOVEFILES message indicates that these deferred file operations are now being performed.

3.2.4 Running the Postinstallation Procedure (Fourth Phase)

If you were informed during the second phase of the installation that the ACMS postinstallation procedure would be executed, it is done at this time. A message similar to the following is displayed:

```
ACMS postinstallation procedure started
  at 11:09 on 22-JUN-2001
```

The postinstallation procedure performs the following steps:

1. **Checking the ACMS$DIRECTORY logical name**

   The procedure checks for the presence of the logical name ACMS$DIRECTORY. If this logical name is defined, it must be in /SYSTEM /SUPERVISOR mode, and it must point to an existing directory. If ACMS$DIRECTORY is not defined or is improperly defined, the procedure asks you for information so that it can define the logical name.

   The following message shows that ACMS$DIRECTORY is properly defined:

   ```
   ACMS$DIRECTORY is defined as MGR$:[ACMS.DIRECTORY]
   ACMS$DIRECTORY logical is acceptable
   ```

2. **Converting ACMSGEN parameter files**

   The procedure asks if you want to convert existing ACMSGEN parameter files. If you answer YES, or press Return to accept the default answer, the procedure searches for all ACMSGEN parameter files located in SYS$SYSDEVICE:[SYS*.SYSEXE] and SYS$COMMON:[SYSEXE], and converts them to be compatible with ACMS Version 4.4.

   The following message shows the ACMSGEN convert question, and typical output from the conversion process:

   ```
   Do you want to convert existing ACMSGEN parameter files [Y]?

       Converting SYS$SYSDEVICE:[SYSEXE]ACMSPAR.ACM

   The ACMSGEN parameter files listed above have been converted; if
   other parameter files exist on your system, they must be updated as
   follows:

           $ RUN SYS$SYSTEM:ACMSGEN
           ACMSGEN> USE file-specification
           ACMSGEN> WRITE file-specification
           ACMSGEN> EXIT
   ```

3. **Converting ACMS UDF and DDF files**

   The procedure asks if you want to convert existing ACMS UDF and DDF parameter files. If you answer YES, or press Return to accept the default answer, the procedure searches for the files pointed to by the logical names ACMSUDF and ACMSDDF, if these logicals are defined, and then for ACMSUDF.DAT and ACMSDDF.DAT in SYS$SYSROOT:[SYS*], and converts them to be compatible with ACMS Version 4.4.

   The following message shows the ACMS UDF and DDF convert question, and typical output from the conversion process:

```
Do you want to convert existing ACMS UDF and DDF files [Y]?

    Converting UDF file SYS$COMMON:[SYSEXE]ACMSUDF.DAT
    Converting DDF file SYS$COMMON:[SYSEXE]ACMSDDF.DAT
```

4. **Checking for ACMS UDF and DDF files**

   The procedure checks for the presence of ACMS DDF and UDF files. It first tries to locate these files through the /SYSTEM /EXECUTIVE logical names ACMSUDF and ACMSDDF, if they exist. The procedure then checks for ACMSUDF.DAT and ACMSDDF.DAT in SYS$COMMON:[SYSEXE]. If the files are not found in either manner, the procedure creates them.

   The following message shows that the logical names do not exist, but that the files were found in SYS$COMMON:[SYSEXE]:

```
    No /SYSTEM /EXECUTIVE logical ACMSUDF found
    SYS$COMMON:[SYSEXE]ACMSUDF exists

    No /SYSTEM /EXECUTIVE logical ACMSDDF found
    SYS$COMMON:[SYSEXE]ACMSDDF exists
```

5. **Checking for ACMS_SETUP.COM**

   The procedure checks for the presence of ACMS_SETUP.COM in SYS$STARTUP. If the file does not exist, it is created. This is a template for site-specific commands related to the startup of ACMS. ACMS_SETUP.COM is executed by ACMSTART.COM, which is normally executed during system startup to start the ACMS software. Chapter 4 explains how to modify this template to address your specific needs regarding ACMS startup.

   If ACMS_SETUP.COM already exists, the ACMS_SETUP_NEW.COM template file is created. After the installation, review this template file to see if you need to add any new commands to your existing ACMS_SETUP.COM.

   The following message shows that the ACMS_SETUP.COM already exists, and that the template file ACMS_SETUP_NEW.COM is being created:

```
    SYS$COMMON:[SYS$STARTUP]ACMS_SETUP.COM already exists

    Creating SYS$COMMON:[SYS$STARTUP]ACMS_SETUP_NEW.COM

Please review the contents of ACMS_SETUP_NEW.COM to determine whether there
are any commands you should add to your existing ACMS_SETUP.COM.
```

6. **Checking for ACMS menu files**

   The procedure checks in ACMS$DIRECTORY for the ACMS command menu ACMSCMD.MDB, and the default user menu ACMS.MDB, and copies them into that directory if they do not exist. The following message shows that the menu files already exist in ACMS$DIRECTORY:

```
    ACMS$DIRECTORY:ACMSCMD.MDB already exists -- not copied
    ACMS$DIRECTORY:ACMS.MDB already exists -- not copied
```

7. **Checking for ACMS$MGMT_SETUP files**

   The procedure checks for ACMS$MGMT_SETUP and Remote Manager configuration files and asks if you want to set up and configure the Remote Manager.

```
Do you want to SETUP and CONFIGURE the ACMS Remote System Manager [Y]?
    Creating SYS$STARTUP:ACMS$MGMT_SETUP.COM
```

   If you respond yes, the procedure asks you a series of questions concerning Remote Manager configuration. Refer to the *Compaq ACMS for OpenVMS Remote Systems Management Guide* for more information about Remote Manager setup.

   When the postinstallation procedure is completed, a message similar to the following is displayed:

```
ACMS postinstallation procedure completed successfully
  at 11:10 on 22-JUN-2001
```

Note

See Chapter 4 for information on tasks that you perform manually after ACMS is installed on your system.

3.2.5 Running the Installation Verification Procedure (Fifth Phase)

If you were informed during the second phase of the installation that the ACMS Installation Verification Procedure (IVP) would be executed, it is done at this time. A message similar to the following is displayed:

```
ACMS Installation Verification Procedure started
  at 11:10 on 22-JUN-2001
```

The IVP is then invoked. It displays several informational messages to inform you of its progress. Refer to Chapter 5 for more information on the ACMS IVP.

Note

If the ACMS IVP is not invoked automatically during the installation, invoke it manually at your earliest convenience after the installation.

When the ACMS IVP is completed, a message similar to the following is displayed:

```
ACMS Installation Verification Procedure completed successfully
  at 11:12 on 22-JUN-2001
```

3.2.6 Completing the Installation

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

```
Installation of ACMSDEVA_ V4.4 completed at 11:12
```

You can now log out of the privileged SYSTEM account:

```
$ LOGOUT
SYSTEM     logged out at 22-JUN-2001 11:13:01.55
```

VMSINSTAL deletes or changes entries in the process symbol tables during the installation. Therefore, if you are going to continue using the SYSTEM account and you want to restore these symbols, log out and log in again.

3.3 Recovering from System and Installation Failures

An unsuccessful installation can result from a system failure or errors encountered during the installation procedure. In some cases, you must correct the problem and reinstall ACMS. In other cases, you can continue where you left off. The following sections describe various failure scenarios and the recommended procedure to follow to recover from them.

3.3.1 System Failures

If you experience a system failure, such as a power loss during installation, VMSINSTAL automatically attempts to continue the installation when you reboot the system. Depending on the point in the installation at which the system failed, one of three conditions exists:

- The system disk did not undergo any changes before the system failure. VMSINSTAL instructs you to restart the installation.
- The system disk used by the installation was corrupted. VMSINSTAL instructs you to restore the system disk from the backup copy and restart the installation.
- VMSINSTAL continues the installation and then might tell you to manually purge replaced files, even if you requested that they be purged automatically. You can purge files, but remember that purging deletes all but the latest version of all files on your system disk. If you have multiple versions of system files that you want to save, you can delete just the ACMS files you want to remove from system directories. If you want to purge files, reboot the system, log in to the SYSTEM account, and purge all system files using the following command:

  ```
  $ PURGE/LOG SYS$SYSROOT:[*...]*.*
  ```

  When you have performed this task, the installation is complete.

If the system fails after you see the message that indicates the beginning of the ACMS IVP, VMSINSTAL has already completed the installation of the component software. In this case, when you reboot your system, VMSINSTAL displays the following message:

```
%VMSINSTAL-I-RECOVER, ACMSDEVA_ V4.4 was being installed when the system crashed.
The installation completed satisfactorily.
```

This message indicates that VMSINSTAL has finished successfully, not that the installation of ACMS was successful.

VMSINSTAL does not automatically restart the IVP. You can run the IVP independently by following the steps described in Chapter 5.

3.3.2 ACMS Installation Failures

If the installation of the ACMS software fails for some reason other than a system failure, the installation procedure displays a message telling you the cause of the failure. To continue with the installation, you must correct the condition causing the error and restart the installation procedure from the beginning.

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

- Operating system version is incorrect.
- Prerequisite software version is incorrect.
- Quotas necessary for successful installation are insufficient.
- System parameter values for successful installation are insufficient.
- OpenVMS help library is currently in use.

For descriptions of the error messages generated by these conditions, see the OpenVMS documentation on system messages, recovery procedures, and OpenVMS software installations. If you are notified that any of these conditions exist, take the appropriate action as described in the message. (For example, you might need to change a system parameter or increase a quota value.) For information on installation requirements, see Chapter 2.

If the installation of the component software completes satisfactorily, but a test or operation fails during the IVP, the IVP displays a message describing the failure and suggests a course of action. In most cases, the suggested course of action is to reinstall ACMS. The failure could be due to low settings for the SYSGEN parameters GBLPAGES, GBLSECTIONS, GBLPAGFIL, or to an insufficient number of process slots. Check the ACMS Software Event Log for a message that indicates the source of the problem. If the IVP fails after you reinstall ACMS, contact your local Compaq Customer Support Center.

3.3.3 Recovering from Errors

You can run the ACMS IVP separately after you install ACMS by following the instructions in Chapter 5. As the IVP executes, it checks the success of each test and operation it performs. If any test or operation fails, the IVP displays a message describing the failure and suggests a course of action. Follow the suggested course of action and then restart the IVP as described in Chapter 5. If the action you take is to reinstall ACMS, the IVP runs automatically if you answer YES to the IVP question. If you still cannot successfully run the IVP, contact your local Compaq Customer Support Center.

3.4 Accessing the Online Release Notes

After ACMS has been installed, the release notes are located in the following file:

```
SYS$HELP:ACMS044.RELEASE_NOTES
```

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

```
$ HELP ACMS RELEASE_NOTES
```

Hardcopy release notes are not included with the documentation set for ACMS.

3.5 Files Installed on Your System

The files added to your system by the ACMS installation are listed in:

```
SYS$SYSTEM:ACMS044_FILES.DAT
```

You can display or print this file after you install ACMS.

ACMS Version Identification File (ACMS_ECO_LEVEL.DAT)

Starting with the ACMS Version 4.0 ECO Kit 1 release, a file named ACMS_ECO_LEVEL.DAT is distributed with the kit. This file is placed in the SYS$SYSTEM directory during installation.

ACMS_ECO_LEVEL.DAT contains the version identifier for the ACMS release that is currently installed on the system. This file is distributed for all releases, including full releases, that have an ECO level of 0. If you report any problems with ACMS, refer to this file to determine the current ACMS version number. The version in this file may be more current than the version numbers that appear throughout the ACMS system, especially when running with an ECO release.

4
After Installing ACMS

This chapter describes system management tasks that you perform manually after installing ACMS Version 4.4. These tasks might include:

- Executing the ACMS postinstallation procedure manually (if it was not executed automatically during installation)
- Editing system startup and shutdown procedures to include ACMS
- Editing the ACMS site-specific startup procedure ACMS_SETUP.COM
- Modifying ACMS parameters
- Authorizing applications, devices, users, and processes
- Creating and modifying ACMS user accounts
- Setting up ACMS on an OpenVMS Cluster system
- Enabling distributed ACMS processing
- Rebuilding the LSE environment
- Preparing language-specific ACMS development environments

The following sections describe these tasks.

4.1 Executing the ACMS Postinstallation Procedure

If you were notified during the ACMS installation that the postinstallation procedure would not be run automatically, execute it now.

To execute the postinstallation procedure manually, use the following commands:

```
$ SET DEFAULT SYS$MANAGER
$ @ACMS_POST_INSTALL.COM
```

See Section 3.2.4 for more information on the steps performed by the postinstallation procedure.

4.2 Editing System Startup and Shutdown Procedures

You must edit the OpenVMS system startup and shutdown procedures to provide for automatic startup and shutdown of ACMS when your system is rebooted. (This step is usually not necessary for system upgrades.)

4.2.1 Editing the System Startup Procedure

Add the following DCL command to the system startup procedure:

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

For sites that have modularized startup procedures, be sure to add the command to the correct procedure. The default startup command procedure for OpenVMS VAX starting with Version 6.*x* and for OpenVMS Alpha systems is SYS$MANAGER:SYSTARTUP_VMS.COM.

Position the ACMS startup command *after* the commands that start software on which ACMS relies. In particular, start ACMS after the network, DECdtm, and DECforms are started, and before TP Desktop Connector is started. For example:

```
$ @SYS$STARTUP:STARTNET.COM
$ @SYS$STARTUP:DECDTM$STARTUP.COM
$ @SYS$STARTUP:FORMS$STARTUP.COM
$ @SYS$STARTUP:ACMSTART.COM
$ @SYS$STARTUP:ACMSDI$STARTUP.COM
```

Note

The network must be running before ACMS is started, if you are going to use distributed ACMS processing.

4.2.2 Installing ACMS Images as Resident on OpenVMS Alpha

On OpenVMS Alpha systems, your application performance may improve by installing certain ACMS images as resident with the OpenVMS Install utility. Installing images as resident allows them to take advantage of the OpenVMS Alpha image-slicing feature.

The code sections of an image installed as resident reside in huge pages called granularity hint regions (GHRs) in memory. The Alpha hardware can consider a set of pages as a single GHR. This GHR can be mapped by a single page table entry (PTE) in the translation buffer (TB). The result is a reduction in TB miss rates. For more information on improving the performance of shareable images, see the *OpenVMS Linker Utility Manual*.

The following ACMS images have been linked to allow them to be installed as resident:

For all kits:

- SYS$LIBRARY:ACMSHR.EXE
- SYS$LIBRARY:ACMTWPSHR.EXE
- SYS$LIBRARY:ACMRRSHR.EXE
- SYS$LIBRARY:ACMVFSHR.EXE

For development and run-time kits only (in addition to the preceding):

- SYS$LIBRARY:ACMIWPSHR.EXE
- SYS$SYSTEM:ACMSIWP.EXE

To install images as resident, execute the ACMS startup command procedure with the RESIDENT parameter as follows:

```
@SYS$STARTUP:ACMSTART.COM RESIDENT
```

On OpenVMS VAX, the RESIDENT parameter is ignored when specified with ACMSTART.COM.

Installing images as resident may require that you increase the GBLPAGES, GBLSECTIONS, and NPAGEDYN system parameters. Refer to Section 2.6.3 for more information on using AUTOGEN to change system parameters.

For OpenVMS Alpha Version 6.*x*, you may need to increase the GH_RSRVPGCNT SYSGEN parameter to install ACMS images as resident.

4.2.3 ACMSTART.COM Installs DECC$SHR and ACMS$TRACE_SHR.EXE

ACMSHR.EXE links with ACMS$TRACE_SHR.EXE, which links with DECC$SHR.EXE. ACMSTART.COM has been modified to install both DECC$SHR.EXE and ACMS$TRACE_SHR.EXE. It is necessary to leave both of these images installed.

If DECC$SHR is not installed on the system, you get an error similar to the following when starting ACMS:

```
$ ACMS/START SYS
%DCL-W-ACTIMAGE, error activating image DECC$SHR
    -CLI-E-IMGNAME, image file
     $100$DUA253:[SYS4.SYSCOMMON.][SYSLIB]DECC$SHR.EXE;1
    -SYSTEM-F-PRIVINSTALL, shareable images must be installed
     to run privileged image
```

If ACMS$TRACE_SHR.EXE is not installed on the system, you get the following error when starting ACMS:

```
$ ACMS/START SYS
%DCL-W-ACTIMAGE, error activating image ACMS$TRACE_SHR.EXE
-CLI-E-IMGNAME, image file
     $100$DUA253:[SYS4.SYSCOMMON.][SYSLIB]ACMS$TRACE_SHR.EXE
    -SYSTEM-F-PRIVINSTALL, shareable images must be installed
     to run privileged image
```

4.2.4 Editing the System Shutdown Procedure

Add the following DCL commands to the system shutdown file, SYS$MANAGER:SYSHUTDWN.COM:

```
$ ACMS/STOP SYSTEM /CANCEL
$ @SYS$STARTUP:ACMSTOP.COM
```

The first command cancels all active tasks and shuts down the ACMS system. It ensures that the ACMS system processes are run down properly and immediately.

The second command invokes the ACMS shutdown command procedure, ACMSTOP.COM. This procedure deinstalls ACMS images (using the Install Utility of OpenVMS).

4.3 Editing ACMS_SETUP.COM

During the installation of ACMS, ACMS_SETUP.COM, a template for site-specific ACMS startup operations, is placed in SYS$STARTUP. If ACMS_SETUP.COM already existed from a previous installation, the template is named ACMS_ SETUP_NEW.COM.

The next sections describe modifications you can make to ACMS_SETUP.COM, based on your use of ACMS.

4.3.1 Optional ACMS Logical Names

Table 4–1 lists optional ACMS logical names that you can define in ACMS_SETUP.COM, and their defaults.

Table 4–1 Optional ACMS Logical Names

Logical Name	Default
ACMS$AUDIT_LOG[1]	SYS$ERRORLOG:ACMSAUDIT.LOG
ACMS$SWL_LOG[1]	SYS$ERRORLOG:SWL.LOG
ACMS$NOTICE[2]	(none)
ACMS$EDIT[3]	SYS$COMMON:[SYSEXE]TDMSEDIT.COM
ADU$EDIT[4]	ACMS$EDIT
SWLUP$EDIT[5]	ACMS$EDIT

[1]See *Compaq ACMS for OpenVMS Managing Applications* for more information on this logical name.

[2]Used to display the text in the file pointed to by the logical name whenever an ACMS user signs in through the terminal subsystem. If defined, it must point to an existing, nonempty text file.

[3]If TDMS is not installed, the default is SYS$COMMON:[SYSEXE]ACMSEDIT.COM.

[4]Defines the editor to be used for the EDIT command to ACMSADU.

[5]Defines the editor to be used for the EDIT command to SWLUP.

For each of these logical names, a DCL command exists in ACMS_SETUP.COM. For example:

```
$! DFN_SUPER ACMS$AUDIT_LOG SYS$ERRORLOG:ACMSAUDIT.LOG
```

(DFN_SUPER is also defined in ACMS_SETUP.COM, to create the logical name in the mode required by ACMS.) To equate an optional ACMS logical to a nondefault value, edit the appropriate command line by removing the exclamation point (!) and providing a new equivalence string for the logical name. For example:

```
$ DFN_SUPER ACMS$AUDIT_LOG AUDIT_DISK:ACMSAUDIT.LOG
```

4.3.2 Installing Application Development Shareable Images

If you have installed the development kit, or the run-time kit with CDD installed, the shareable images listed in Table 4–2 and Table 4–3 are in SYS$SHARE. If you installed the remote-access kit, or the run-time kit without CDD installed, these images are not supplied.

If you do a lot of ACMS application development work, consider installing these shareable images. Installing these images increases the number of global sections and global pages required by ACMS, but decreases memory requirements if many users are running ADU, and also decreases image activation time. Table 4–2 and Table 4–3 show the number of global sections and global pages required for installing each image.

Table 4–2 Global Sections and Pages Required for Shared Utility Images (Alpha)

Utility Image	GBLSECTIONS Used	GBLPAGES Used
ACMADUSHR	3	63
ACMCDUSHR	3	383
ACMCMUSHR	1	331
ACMTDUSHR	3	650

Table 4–3 Global Sections and Pages Required for Shared Utility Images (VAX)

Utility Image	GBLSECTIONS Used	GBLPAGES Used
ACMADUSHR	3	22
ACMCDUSHR	1	169
ACMCMUSHR	1	145
ACMTDUSHR	1	299

For each of these images, the following DCL commands exist in ACMS_SETUP.COM:

```
$! IMAGE_NAME = "image"
$! GOSUB INSTALL_IMAGE
```

To install these images during the next ACMS startup, edit the command lines by removing the exclamation point (!) in each line.

4.3.3 ACMS System Management Commands

ACMS_SETUP.COM can also be used to execute ACMS system management commands that prepare the ACMS system for work. These commands might include starting applications, enabling ACMS operator terminals, starting the Queued Task Initiator (QTI), and so forth.

Examples of these commands are included at the end of ACMS_SETUP.COM:

```
$!** Start the ACMS system (delay terminal startup until applications are
$!** started)
$! ACMS/START SYSTEM /NOTERMINALS
$!
$!** Set ACMS operator terminals; if more than one, place them within the
$!** parentheses and separate with commas, eg (OPA0,TTA2)
$! ACMS/SET SYSTEM /OPERATOR/TERMINAL=(OPA0)
$!
$!** Start the Queued Task Initiator
$! ACMS/START QTI
$!
$!** Start task queues; if more than one, separate with commas,
$!** eg QUEUE_1,QUEUE_2
$! ACMS/START QUEUE QUEUE1
$!
$!** Start ACMS applications; if more than one, separate with commas,
$!** eg APPLICATION_1,APPLICATION_2
$! ACMS/START APPLICATION APPLICATION_1
$!
$!** Start ACMS terminals
$! ACMS/START TERMINALS
```

Edit this section of ACMS_SETUP.COM by inserting the commands necessary to complete the startup of your ACMS system.

4.4 Modifying ACMS Parameters

After installing ACMS, run the ACMSPARAM.COM and ACMEXCPAR.COM command procedures to determine ACMS quotas, parameters, and privileges. There is no need to run ACMEXCPAR.COM after a new installation until applications have been installed.

Note

Compaq strongly recommends that you use ACMSPARAM.COM and ACMEXCPAR.COM. Otherwise, you might not be able to start ACMS.

These command procedures perform the following tasks:

- Calculate the minimum settings for the OpenVMS SYSGEN parameters that ACMS affects.
- Assign privileges and quotas required for user names under which the ACMS run-time processes run.
- Assign privileges and quotas required for user names under which applications run.

ACMSPARAM.COM and ACMEXCPAR.COM do not support logical name search lists for the TDB file specifications.

Refer to *Compaq ACMS for OpenVMS Managing Applications* for information on how to use the ACMSPARAM and ACMEXCPAR command procedures.

Certain conditions require attention to adjust ACMS parameter values:

- ACMSPARAM.COM might generate an excessive PGFLQUOTA value for the CP account.

The current formula for calculating the PGFLQUOTA value of the CP account is liberal. The formula assumes that each exchange step involves the sending or receiving of the largest message. (See the description of the LARGEST_ MESSAGE variable in *Compaq ACMS for OpenVMS Managing Applications*.)

After executing ACMSPARAM.COM, review the value of CP_PGFLQUOTA. If its value appears to be excessively large, then replace the LARGEST_ MESSAGE variable with the average size of workspaces used in exchange steps, or with the size of the workspace most often used in exchange steps.

The formula for calculating the CP_PGFLQUOTA provides only a rough approximation of the quota. To fine-tune your system, calculate the quota for your particular system.

- ACMS operator commands may fail with the INVACMPAR error.

  During a new installation of ACMS, the installation procedure resets the ACMSGEN parameters to their default values. If the value of the SYSGEN parameter MAXPROCESSCNT is too large, the default size of MSS_POOLSIZE can be too low to allow ACMS to start. The following error is reported when any ACMS operator command is entered:

  ```
  -ACMSMSS-E-INVACMPAR, The system MSS parameters are invalid
  ```

  Enter the following commands to reset MSS_POOLSIZE — you might need to set MSS_POOLSIZE to be larger, depending on the value of MAXPROCESSCNT:

  ```
  $ MCR ACMSGEN
  USE CURRENT
  SET MSS_POOLSIZE 1024
  WRITE CURRENT
  ```

4.5 Authorizing Applications, Devices, Users, and Processes

ACMS provides utilities to specify which applications, terminals, users, and agent programs can access the ACMS system. The following sections describe these utilities.

4.5.1 Authorizing New Applications

Run the ACMS Application Authorization Utility (AAU) to authorize any new ACMS applications that you plan to install. AAU allows you to authorize applications, specify application user name restrictions, and define who can install those applications. You must restart ACMS after installing any new applications.

Users who have been authorized by AAU can use the ACMS/INSTALL operator command to install applications in ACMS$DIRECTORY. By default, no users are authorized to use the ACMS/INSTALL operator command.

Use of AAU is optional; however, it can simplify and ease the application management process during the development and maintenance of applications.

For information on using AAU, see *Compaq ACMS for OpenVMS Managing Applications*.

4.5.2 Authorizing New Terminals

If you have new terminals to authorize or modify, run the Device Definition Utility (DDU) to authorize either all terminals (with $ALL) or individual terminals (by device name) for access to ACMS:

```
$ SET DEFAULT SYS$SYSTEM
$ RUN ACMSDDU
DDU> ADD $ALL
DDU> EXIT
```

For information on using DDU, see *Compaq ACMS for OpenVMS Managing Applications*.

Note

Users on your system cannot sign in to ACMS until you authorize $ALL or specific terminals.

4.5.3 Authorizing New Users

If you have new users to authorize, run the ACMS User Definition Utility (UDU) to authorize ACMS users. You can either authorize all users (with $ALL) or individual users (by name):

```
$ SET DEFAULT SYS$SYSTEM
$ RUN ACMSUDU
UDU> ADD $ALL
UDU> EXIT
```

For information on using UDU, see *Compaq ACMS for OpenVMS Managing Applications*.

Note

Users on your system cannot sign in to ACMS until you authorize $ALL or specific user names.

4.5.4 Authorizing ACMS Processes

You must authorize the user name of any task-submitting agent program that submits a task for processing with a user name other than the user name of that agent. Use the /AGENT qualifier with the UDU ADD command to authorize this type of agent. For example, use the following command to authorize an agent with the user name SYSTEM:

```
$ RUN ACMSUDU
UDU> ADD SYSTEM /AGENT
User SYSTEM  has been added to the database
```

Both the ACMS Command Process (CP) and the Queued Task Initiator (QTI) must be authorized as agents. By default, ACMS assigns the user name SYSTEM to the CP and QTI. If you change the user name of the CP or QTI with ACMSGEN, you must run the UDU again, using the RENAME command to change the user name in the UDU authorization file.

For information on UDU, see *Compaq ACMS for OpenVMS Managing Applications*.

Note

The ACMSPARAM.COM procedure automatically authorizes the user names of the CP and QTI as agents (using the /AGENT qualifier) in the ACMS user authorization file ACMSUDF.DAT. The ACMSPARAM command procedure takes either the user name you supply or supplies a default user name. The default user name supplied for the CP is ACMS$CP. The default user name supplied for the QTI is ACMS$QTI.

4.6 Creating and Modifying ACMS User Accounts

Each person who uses ACMS on your system must be an authorized OpenVMS user, with certain privileges and quotas. The following sections describe these requirements. (See *Compaq ACMS for OpenVMS Managing Applications* for quotas required for users running the ACMS Task Debugger.)

4.6.1 Privileges

To use ACMS, each user account must have at least TMPMBX and NETMBX privileges. Those persons who are responsible for starting the ACMS system, starting applications, and using other ACMS operator commands must have OpenVMS OPER privilege. Use the OpenVMS Authorize Utility to determine whether users have the privileges they require.

4.6.2 Quotas

Make sure that the appropriate user accounts have sufficient quotas to be able to use ACMS. Table 4–4 summarizes the required user account quotas.

Table 4–4 User Account Quotas

Account Quota	Value (≥)
ASTLM	24
BIOLM	18
BYTLM	10,240
DIOLM	22
ENQLM	100
FILLM	50
PRCLM	2
WSDEF	256
WSEXT	1,024
WSQUO	512
PGFLQUO	12,800

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

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

At the AUTHORIZE prompt (UAF>), 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 at the UAF> prompt. The MODIFY command has the following format:

MODIFY account-name/quota-name=nnnn

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

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

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

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

4.7 Setting up ACMS on an OpenVMS Cluster System

Because ACMS treats an OpenVMS Cluster system as if it were a local area network, you must perform the following operations on each node of the cluster:

- Define proxy accounts for users on other nodes of the cluster.

  ACMS does not recognize the common security domain of a homogeneous OpenVMS Cluster system. As a consequence, you must define proxy accounts on each node for users on other nodes of the cluster. You can use ACMSGEN to assign a default proxy user name (with the USERNAME_DEFAULT parameter of ACMSGEN), or use the ACMSUDU utility to define individual ACMS proxy user names for submitters. Refer to *Compaq ACMS for OpenVMS Managing Applications* for more information on using ACMSUDU to create submitter proxies.

- Issue a LICENSE LOAD command on each node that will run ACMS.

  If you are installing ACMS in a cluster, you must load the ACMS license on each node that will use the product. For example:

  ```
  $ LICENSE LOAD ACMS
  ```

- Replace the DCL tables on each node. For example:

  ```
  $ INSTALL REPLACE SYS$SHARE:DCLTABLES
  ```

- Execute ACMS startup procedure on each node that will run ACMS. For example:

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

- Set up node-specific ACMSPAR.ACM files.

  If you are installing ACMS in a cluster, you must make sure that the ACMSPAR.ACM parameter file is in the directory SYS$SPECIFIC:[SYSEXE], rather than SYS$COMMON:[SYSEXE] before setting the NODE_NAME parameter. Do this on each node of the cluster, because each node has a

different DECnet node name and, therefore, each must have its own node-specific ACMSPAR.ACM file. See Section 4.8 for more information on setting the NODE_NAME parameter.

4.8 Enabling Distributed ACMS Processing

By default, ACMS does not enable distributed processing. If submitters on your node need to select tasks in a remote application, or if remote submitters need to select tasks in an application on your node, you must set the NODE_NAME parameter in ACMSGEN to your node name. (This step is usually necessary only for new installations, not system upgrades.) For example:

```
$ RUN SYS$SYSTEM:ACMSGEN
ACMSGEN> SET NODE_NAME DOVE
ACMSGEN> WRITE SYS$SPECIFIC:[SYSEXE]ACMSPAR.ACM
```

For more information about using ACMSGEN and ACMS distributed processing, see *Compaq ACMS for OpenVMS Managing Applications*.

4.9 Rebuilding the LSE Environment

If the DECtp Implementation Toolkit for OpenVMS is installed on your system, you must rebuild the toolkit's LSE environment and section files after installing ACMS Version 4.4. See the toolkit documentation for instructions on how to rebuild the LSE environment.

4.10 Installing ACMS Menu Form Files

If you have customized the ACMS menu form definition file, you must rebuild the form image file. Use the following DCL command file to rebuild and install the new form image file on the system:

```
$  @SYS$MANAGER:ACMS_BUILD_MENU_FORM.COM
```

4.11 Preparing Language-Specific ACMS Development Environments

The following sections describe how to set up an environment for developing ACMS agents in BLISS or Pascal.

4.11.1 BLISS Agents

ACMS Version 4.4 supplies the ACMSBLI.R32 file. If you plan to use BLISS agents, see the BLISS-32 documentation for directions on building the BLISS library file (ACMSBLI.L32) from the ACMSBLI.R32 file, and for general information on creating library files, and using library files and require files.

ACMSBLI.R32 contains the following:

- Keyword macros for all the services. The macro name is the service name prefixed with a dollar sign ($). The keyword macro for ACMS$SIGN_IN, for example, is $ACMS$SIGN_IN.
- Structure definitions for all IDs. The name of the structure is the same as the name given in the structure layouts listed in *Compaq ACMS for OpenVMS Systems Interface Programming*. Use these IDs in declaration definitions.
- Miscellaneous symbolic constants used in service call arguments.

4.11.2 Pascal Agents

ACMS Version 4.4 supplies the ACMSPAS.PAS file. If you plan to use Pascal agents, you must compile this file into an environment file. See the VAX Pascal documentation for directions on building the environment file (.PEN) from the ACMSPAS.PAS file, and on using environment definitions.

ACMSPAS.PAS contains the following:

- Routine definitions for all the services.
- Record definitions for all IDs. The name of the record is the same as the name given in the structure list in the *Compaq ACMS for OpenVMS Systems Interface Programming*. Use these IDs in declarations.
- Miscellaneous symbolic constants used in service call arguments.

Note

If you use the nonpositional syntax form of parameter association, you must use PROCEDURE_ rather than PROCEDURE as the formal parameter name for ACMS$GET_PROCEDURE_INFO, because PROCEDURE is a reserved word in Pascal. See *VAX Pascal Reference Manual* for more information.

4.12 Determining and Reporting Problems

Installing ACMS changes the state of your system. Record any changes to the system in your system management log. If an error occurs while ACMS is being used and you believe that the error is caused by a problem with ACMS, contact a Compaq Customer Support Center to report the problem.

5
Running the ACMS IVP

This chapter describes how to run the ACMS software Installation Verification Procedure (IVP) separately from the installation procedure. The IVP checks that the installation procedure has successfully installed the ACMS software, and that the software can create and run ACMS applications.

The IVP can be run as a part of the normal installation. However, if the automatic IVP fails for any reason, correct the error and then run the IVP again.

You can also execute the IVP to verify that ACMS is functioning properly after your system environment has changed; for example, after you have installed or upgraded another layered product that ACMS uses, such as DECforms or Rdb.

5.1 Functions of the IVP

Table 5–1 lists the tests performed by the ACMS IVP. The full set of tests is performed if you installed the development kit; subsets are performed for the run-time kit with CDD, the run-time kit without CDD, and the remote-access kit.

Note

If disk quotas are enabled, the IVP fails. The installation procedure checks to see if disk quotas are enabled. If disk quotas are enabled, the installation procedure displays an informational message to that effect and continues. See Section 2.5 for more information on disk quotas.

Table 5–1 ACMS IVP Tests

Test Description	Development Kit[1]	Run-Time Kit with CDD[1]	Run-Time Kit Without CDD	Remote-Access Kit
Check ACMS files	+	+	+	+
Define tasks and task groups	+			
Define application	+	+		
Link procedure server image	+	+	+	
Update DDF and UDF files	+	+	+	+
Create ACMSPAR file	+	+	+	+
Start ACMS system	+	+	+	+

[1]The IVP may fail if a DECdtm log file is not present on the system. CDD uses DECdtm, and, therefore, that portion of the IVP that builds the IVP task group and application is subject to the requirements of CDD and DECdtm. If you are installing the ACMS Remote-Access kit or the ACMS Run-Time kit without CDD, this error cannot occur. If the IVP fails, refer to Appendix D for directions on how to create a transaction log.

(continued on next page)

Table 5–1 (Cont.) ACMS IVP Tests

Test Description	Development Kit[1]	Run-Time Kit with CDD[1]	Run-Time Kit Without CDD	Remote-Access Kit
Start application	+	+	+	
Select tasks	+	+	+	
Test ACMS debugger	+			
Test Queued Task Initiator	+	+	+	+
Test queue manager	+	+	+	+
Stop ACMS system	+	+	+	+

[1]The IVP may fail if a DECdtm log file is not present on the system. CDD uses DECdtm, and, therefore, that portion of the IVP that builds the IVP task group and application is subject to the requirements of CDD and DECdtm. If you are installing the ACMS Remote-Access kit or the ACMS Run-Time kit without CDD, this error cannot occur. If the IVP fails, refer to Appendix D for directions on how to create a transaction log.

5.2 Running the IVP

To run the IVP independently of the installation procedure, follow these steps:

1. Log in to the system manager's account, SYSTEM:

   ```
   Username:  SYSTEM
   Password:
   ```

2. Shut down ACMS.

   You cannot run the IVP if ACMS is active on your system. To shut down ACMS, enter the following command at the DCL prompt:

   ```
   $ ACMS/STOP SYSTEM/CANCEL
   ```

3. Set your default to SYS$SYSROOT:[SYSTEST.ACMS]:

   ```
   $ SET DEFAULT SYS$SYSROOT:[SYSTEST.ACMS]
   ```

4. Run the ACMS Installation Verification Procedure, ACMSIVP.COM.

   To start the IVP, enter the following command:

   ```
   $ @ACMSIVP
   ```

The IVP checks for the presence of the user account ACMS$IVP. If the account does not exist, the IVP asks you for a user identification code (UIC) and password so that it can create the account. Refer to Section 2.9 and Section 3.2.2 for more information on creating the ACMS$IVP account.

Section 2.8 contains information on the time necessary to execute the IVP.

5.3 Errors Running the IVP

When the IVP is run automatically during the installation of ACMS, all output from the IVP is logged in SYS$UPDATE:ACMSIVP.LOG. When the IVP is run manually, all output is displayed on the terminal.

If the IVP detects an error, it provides an appropriate error message. This message includes a suggested action, such as stopping the ACMS system and reinvoking the IVP. If the suggested action does not fix the problem, reinstall ACMS.

IVP Can Fail with INVACMPAR Error When MSS_POOLSIZE Is Too Low

When you run the IVP, it resets all the ACMSGEN parameters to their default values. If the value of the SYSGEN parameter MAXPROCESSNT is too large, the default size of MSS_POOLSIZE can be too low to allow ACMS to start. The following error is reported when any ACMS operator command is entered:

```
-ACMSMSS-E-INVACMPAR, The system MSS parameters are invalid
```

To run the IVP, include the following in the ACMSIVP.COM file, which is located in the subdirectory [.ACMS] under SYS$TEST — you might need to set the value of MSS_POOLSIZE to be larger, depending on the value of MAXPROCESSCNT:

```
$ MCR ACMSGEN
USE DEFAULT
SET MSS_POOLSIZE 1024
SET ACC_USERNAME ACMS$IVP
   .
   .
   .
```

5.4 Sample IVP Execution

This section contains a sample manual execution of the ACMS IVP for the ACMS Alpha development kit.

```
    Starting the ACMS V4.4-0 Installation Verification Procedure
      at 11:13 on 22-JUN-2001

    The IVP is testing a development installation

    (Checking privileges)
    (Checking for existing ACMS processes)
    (Checking for execution of ACMSTART.COM)
    (Checking ACMS logicals)
    (Checking ACMS system files)
    (Checking CDD directory CDD$TOP.ACMS$DIR.ACMS$IVP)
    (Defining IVP's tasks and task group)
%ACMSTDU-I-WRITETDB, Writing TDB
-ACMSTDU-I-BYTESWRIT,  3584 bytes (7 blocks)
%ACMSTDU-I-OBJMODCRE, Procedure server 'GROUP1_SERVER1' object module created
in file 'SYS$COMMON:[SYSTEST.ACMS]GROUP1_SERVER1.OBJ;3'
    (Defining IVP's application)
%ACMSCDU-I-WRITEADB, Writing ADB
-ACMSCDU-I-BYTESWRIT,  1824 bytes (4 blocks)
    (Linking server image)
    (Updating IVP's DDF file)
    (Updating IVP's UDF file)
    (Creating IVP's ACMSPAR file)
    (Starting ACMS system)
    (Starting ACMS application ACMSIVP)
    (Checking ACMS processes)
    (Selecting IVP's tasks)
ACMS V4.4-0   Current System State: STARTED   Time: 22-JUN-2001 11:15:19.65

Terminal Subsystem State:    STARTED
Queued Task Initiator State: STOPPED
System Auditing State:       ENABLED

Active ACMS Users

User Name      Submitter ID        Agent PID      Device
SYSTEM         00010014            28A00CBB       RTA5:

Active Execution Controllers
```

Running the ACMS IVP
5.4 Sample IVP Execution

```
Application Name                  Process Name        User Name      Exc PID
ACMSIVP                           ACMS01EXC001000     ACMS$IVP       28A00CD9

    (Testing the ACMS Debugger)
    (Testing the ACMS Queued Task Initiator)
    (Testing the ACMS Queue Manager)
    (Stopping the ACMS system)

    ACMS V4.4-0 Installation Verification Procedure completed
    successfully at 11:15 on 22-JUN-2001

    (Cleaning up)

$ LOGOUT
  SYSTEM       logged out at 22-JUN-2001 11:16:07.07
```

6
Deinstalling ACMS

This chapter describes the process of deinstalling ACMS.

Caution

The deinstallation of ACMS removes all ACMS files from your system, including customer-written applications in ACMS$DIRECTORY.

Deinstallation is necessary only if you no longer need ACMS on your system and you want to release the disk space for other use.

Deinstallation is not necessary if you are upgrading to a new version of ACMS. When you upgrade, obsolete ACMS files are deleted and superseded files are purged automatically by the installation procedure.

6.1 Starting the Deinstallation Procedure

To invoke the ACMS deinstallation procedure, execute the following command:

```
$ @SYS$UPDATE:ACMS_DEINSTALL.COM
```

The deinstallation procedure asks if you want to continue. The default answer is NO; you must answer YES Return to continue.

The deinstallation procedure then does the following:

1. Stops the ACMS system.
2. Deinstalls all ACMS installed images.
3. Deletes all files and directories known to be created by the ACMS installation.
4. Checks the system disk for any other files that might be related to ACMS.

If files are found that might be related to ACMS, the deinstallation procedure lists them on your terminal. You can review any files listed in this manner and delete them manually, or you can reinvoke the deinstallation procedure to delete them automatically. Execute the following command to delete these files automatically:

```
$ @SYS$UPDATE:ACMS_DEINSTALL.COM DELETE_SUSPECTED_ACMS_FILES
```

6.2 Completing the Deinstallation

The ACMS deinstallation procedure removes all files related to ACMS from the system. However, to complete the deinstallation of ACMS, you might also want to perform some or all of the following cleanup steps:

- Deassign all ACMS logical names (on each node if in an OpenVMS Cluster environment).

6.2 Completing the Deinstallation

- Delete the ACMS$IVP account from the SYSUAF database.
- Remove any OpenVMS proxies granted to former users of ACMS who no longer need access to the system.
- Delete the ACMS deinstallation command procedure by executing the following command:

```
$ DELETE SYS$UPDATE:ACMS_DEINSTALL.COM;*
```

A
Sample Installations

This appendix contains sample installations of the ACMS development kits.

These samples represent typical installations. Many variations are possible, based on the OpenVMS version and the presence of other layered products on your system.

A.1 OpenVMS Alpha Development Kit Sample Installation

This section contains a sample installation of the ACMS Version 4.4 for OpenVMS Alpha development kit. The details of your actual installation may be somewhat different.

```
$ @sys$update:vmsinstal ACMSDEVA_044 dua0:[kits]

 OpenVMS AXP Software Product Installation Procedure V7.3


It is 22-JUN-2001 at 09:22.

Enter a question mark (?) at any time for help.
%VMSINSTAL-W-ACTIVE, The following processes are still active:
       _RTA2:
* Do you want to continue anyway [NO]? YES
* Are you satisfied with the backup of your system disk [YES]?

The following products will be processed:
  ACMSDEVA_ V4.4

 Beginning installation of ACMSDEVA_ V4.4 at 09:22

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

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 or in FAR 52.227-19, as applicable.

The results of this installation are being logged in:
  SYS$COMMON:[SYSUPD]ACMS044_INSTALLATION.LOG

Installing ACMS V4.4-0, development kit

    There are five optional parts to the ACMS development kit installation:
```

```
        o  ACMS component software
        o  ACMS LSE update
        o  ACMS samples
        o  ACMS Request Interface samples
        o  ACMS WBEM related files

    The full installation includes all these parts.
    If ACMS component software is selected, the ACMS WBEM related files
    will also be copied.

    To install the ACMS samples or the ACMS Request Interface samples, you must
    install, or have previously installed, the ACMS component software.

* Do you want the full ACMS installation [NO]? YES

CHECKING INSTALLATION PREREQUISITES
-----------------------------------

The following software products are not available, or are below the minimum
required version:

  Product               Required  Minimum version  Current Version
  --------------------  --------  ---------------  ---------------
  LSE                   No        V4.3             V4.2-17

    If products marked as nonrequired are to be used with ACMS, they should be
    upgraded to at least the minimum version displayed before use.

    (required and optional software checked)

    (product licenses checked)

The following images are not installed:

  Product          Image                       Required  Startup Procedure
  ---------------  --------------------------  --------  --------------------
  DECtrace         VMI$ROOT:[SYSLIB]EPC$FUNC   No        EPC$STARTUP.COM

    The images marked as required must be installed before this installation can
    be successfully completed. These images are usually installed by executing
    the product's startup procedure. For more information, refer to product
    specific documentation and the VMS INSTALL Utility Manual.

    (installed images checked)

    (privileges checked)

    (disk space checked)

    (disk quotas checked)

    (system parameters checked)

    (process account quotas checked)

ACMS PREVIOUS INSTALLATION
--------------------------

    (no previous installation of ACMS found)

ACMS LSE CHECK
--------------

    (LSE available and will be updated for ACMS)

ACMS WBEM CHECK
---------------


ACMS Oracle Trace CHECK
-------------------

    Oracle Trace is not being updated for ACMS because it is not available, not
    started, or Rdb is not started.
```

```
    The ACMS facility definition will be stored in SYS$SHARE:EPC$FACILITY.TLB.
    For more information on inserting this definition into the Oracle Trace
    administrative database, refer to the Oracle Trace documentation.

ACMS OLD SAMPLE FILES
---------------------

    (no old sample files found)

ACMS SHUTDOWN CHECK
-------------------

    ACMSTOP.COM was not found. If ACMS was previously installed on this
    system, make sure it is shut down before proceeding with this
    installation.


ACMS POSTINSTALLATION PROCEDURE
-------------------------------

    (postinstallation procedure will be run automatically after installation)

    Please read the chapter After Installing ACMS, in the ACMS Installation
    Guide, for manual tasks that you should consider after installing ACMS.

ACMS SYSTEM ROOTS CHECK
-----------------------

    (no ACMS-related files found in system-specific roots)


ACMS IVP
--------

* Do you want to execute the Installation Verification Procedure [YES]?

    Checking IVP user account ACMS$IVP

  The ACMS$IVP account used to execute the IVP is not available.

    You must supply a UIC and password for this account so that it can be
    created; this must be done before the IVP can be executed.

    Please enter the UIC for the ACMS$IVP account, in the form [ggggg,nnnnnn]

* UIC: [11,100]

    Please enter a password of at least 8 characters, using only
    the following characters: ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789$_

* Password:
* Verification:

SUMMARY OF THIS ACMS INSTALLATION
---------------------------------

    The following steps will be taken to complete this installation:

    o  The ACMS system will be shut down (via SYS$STARTUP.ACMSTOP.COM)
    o  ACMS component software will be installed
    o  WBEM environment will be updated for ACMS
    o  LSE environment will be updated for ACMS
    o  Oracle Trace facility text library will be updated for ACMS
    o  CDD-related ACMS files will be installed
    o  ACMS samples will be installed
    o  ACMS Request Interface samples will be installed
    o  The ACMS postinstallation procedure will be executed
    o  The ACMS IVP will be executed

    The rest of the installation will take approximately 7 minutes.
    Execution of the IVP will take approximately 2 minutes.

    Note that this time is heavily dependent your system load, hardware
    and kit media. The time mentioned was measured on a stand-alone DEC 3000
    (Alpha) system with a disk-resident kit.  Your time may vary.
```

A.1 OpenVMS Alpha Development Kit Sample Installation

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

The interactive portion of this installation is complete; no further questions
will be asked until the post installation.


    Installation of ACMS started
      at 09:30 on  22-JUN-2001

    Restoring savesets
%VMSINSTAL-I-RESTORE, Restoring product save set J ...
%VMSINSTAL-I-RESTORE, Restoring product save set K ...
%VMSINSTAL-I-RESTORE, Restoring product save set L ...
%VMSINSTAL-I-RESTORE, Restoring product save set M ...
%VMSINSTAL-I-RESTORE, Restoring product save set N ...
%VMSINSTAL-I-RESTORE, Restoring product save set O ...
%VMSINSTAL-I-RESTORE, Restoring product save set P ...
%VMSINSTAL-I-RESTORE, Restoring product save set R ...

    Checking/creating ACMS directories
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
  VMI$ROOT:[SYSHLP.EXAMPLES.ACMSMGMT].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
  VMI$ROOT:[SYSTEST.ACMS].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
  VMI$ROOT:[SYSHLP.EXAMPLES.ACMSSI].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
  VMI$ROOT:[SYSHLP.EXAMPLES.ACMS].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
  VMI$ROOT:[SYSHLP.EXAMPLES.ACMS.RI].
    Updating LSE
    Updating Oracle Trace definition text library
    Deleting old CDD$TOP.ACMS$DIR.ACMS$WORKSPACES
    Creating CDD$TOP.ACMS$DIR.ACMS$WORKSPACES
    Deleting old RI sample CDD nodes...
    Restoring RI sample application CDD nodes...
%VMSINSTAL-I-ACCOUNT, This installation creates an ACCOUNT named ACMS$IVP.
%UAF-I-ADDMSG, user record successfully added
%UAF-I-RDBADDMSGU, identifier ACMS$IVP value [000011,000100] added to rights
  database

    Account ACMS$IVP created

    Updating account ACMS$IVP to current parameters
%VMSINSTAL-I-ACCOUNT, This installation updates an ACCOUNT named ACMS$IVP.
%UAF-I-MDFYMSG, user record(s) updated
%VMSINSTAL-I-ACCOUNT, This installation updates an ACCOUNT named ACMS$IVP.
%UAF-I-MDFYMSG, user record(s) updated
%VMSINSTAL-I-ACCOUNT, This installation updates an ACCOUNT named ACMS$IVP.
%UAF-I-MDFYMSG, user record(s) updated
%VMSINSTAL-I-ACCOUNT, This installation updates an ACCOUNT named ACMS$IVP.
%UAF-I-MDFYMSG, user record(s) updated

    Account ACMS$IVP updated

    ACMS$IVP account created/updated -- IVP selected to run
    Providing files
    Provided DCL command file ACMS.CLD
    Provided DCL help file ACMSHELP.HLP
    All other files provided - list is in
      JDIDIT$DKB200:[SYS0.SYSCOMMON.][SYSEXE]ACMS044_FILES.DAT

    Installation of ACMS completed successfully
      at 09:34 on  22-JUN-2001

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

```
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    ACMS postinstallation procedure started
      at 09:36 on  22-JUN-2001

        ************************************************************
        *                                                          *
        *  NOTE: Refer to Chapter 4 in the ACMS Installation Guide *
        *         for other important postinstallation work.       *
        *                                                          *
        ************************************************************

Checking/creating logical ACMS$DIRECTORY
----------------------------------------

  The procedure checks for the logical ACMS$DIRECTORY, which must be defined
  /SYSTEM /SUPERVISOR and must point to an existing disk directory.

    ACMS$DIRECTORY is defined as SYS$SYSDEVICE:[ACMS.ADB]
    SYS$SYSDEVICE:[ACMS.ADB] does not exist

Do you want to create it [Y]?

    Created directory SYS$SYSDEVICE:[ACMS.ADB]

    ACMS$DIRECTORY is defined as SYS$SYSDEVICE:[ACMS.ADB]
    ACMS$DIRECTORY logical is acceptable

Converting ACMSGEN parameter files
----------------------------------

  This procedure searches for all ACMSGEN parameter files located in
  SYS$SYSDEVICE:[SYS*.SYSEXE] and SYS$COMMON:[SYSEXE], and converts
  them to be compatible with the current version of ACMS. If you are
  upgrading from a version of ACMS prior to V4.0, you must perform
  this conversion.

Do you want to convert existing ACMSGEN parameter files [Y]?

    Converting SYS$COMMON:[SYSEXE]ACMSPAR.ACM

    The ACMSGEN parameter files listed above have been converted; if other
    parameter files exist on your system, they must be updated as follows:

        $ RUN SYS$SYSTEM:ACMSGEN
        ACMSGEN> USE file-specification
        ACMSGEN> WRITE file-specification
        ACMSGEN> EXIT

                         (press <RETURN> to continue)

Converting ACMS UDF and DDF files
---------------------------------
```

```
  The procedure searches for the files pointed to by the ACMSUDF and ACMSDDF
  logicals, if they exist, and then for AMCSUDF.DAT or ACMSDDF.DAT in
  SYS$SYSROOT:[SYS*], and converts them to be compatible with the current
  version of ACMS. If you are upgrading from a version of ACMS prior to V3.1,
  you must perform this conversion.

Do you want to convert existing ACMS UDF and DDF files [Y]?

    No files found to convert

                        (press <RETURN> to continue)

Checking/creating ACMS UDF and DDF files
----------------------------------------

  The procedure checks for ACMSUDF.DAT and ACMSDDF.DAT, first through the
  logicals ACMSUDF and ACMSDDF, and then in SYS$COMMON:[SYSEXE], and
  creates them if they're not already present from a previous installation.

    No /SYSTEM /EXECUTIVE logical ACMSUDF found
    SYS$COMMON:[SYSEXE]ACMSUDF.DAT not found
    Creating SYS$COMMON:[SYSEXE]ACMSUDF.DAT

    No /SYSTEM /EXECUTIVE logical ACMSDDF found
    SYS$COMMON:[SYSEXE]ACMSDDF.DAT not found
    Creating SYS$COMMON:[SYSEXE]ACMSDDF.DAT

                        (press <RETURN> to continue)

Checking/creating ACMS_SETUP.COM
--------------------------------

  The procedure checks for site-specific startup procedure ACMS_SETUP.COM in
  SYS$COMMON:[SYS$STARTUP], and creates a template if the file doesn't
  already exist.

    Creating SYS$COMMON:[SYS$STARTUP]ACMS_SETUP.COM

  ACMS_SETUP.COM will be executed the next time you invoke
  SYS$STARTUP:ACMSTART.COM. Please review ACMS_SETUP.COM and adjust it to
  reflect the needs of your ACMS environment. It can be used to perform
  these site-specific startup steps:
    - define the ACMS logical ACMS$DIRECTORY
    - install ACMS utilities as shareable images
    - define ACMS logicals such as ACMS$AUDIT_LOG, ACMS$SWL_LOG,
      ACMS$NOTICE, ACMS$EDIT, ADU$EDIT and SWLUP$EDIT
    - start the ACMS system and applications

                        (press <RETURN> to continue)

Checking/copying ACMS menu files
--------------------------------

  The procedure checks for the ACMS command menu and default user menu in
  ACMS$DIRECTORY, and copies them from SYS$COMMON:[SYSEXE] if they're not
  already in ACMS$DIRECTORY from a previous installation.

    Copying new ACMSCMD.MDB to ACMS$DIRECTORY
    Copying new ACMS.MDB to ACMS$DIRECTORY

         ************************************************************
         *                                                          *
         *  NOTE: Refer to Chapter 4 in the ACMS Installation Guide *
         *         for other important postinstallation work.       *
         *                                                          *
         ************************************************************

Checking/creating ACMS$MGMT_SETUP.COM
-------------------------------------
```

```
        ************************************************************
        *                                                          *
        *  NOTE: Refer to the Managing the Remote Manager chapter  *
        *  in the ACMS Remote Systems Management Guide for more    *
        *  information.                                            *
        *                                                          *
        ************************************************************

Do you want to SETUP and CONFIGURE the ACMS Remote System Manager [Y]?

    Creating SYS$STARTUP:ACMS$MGMT_SETUP.COM

Do you want to allow Proxy Authorization [Y]?

(ACMS$MGMT_CONFIG) Enter the file specification for the configuration file used
  by the ACMS Remote Manager
Equivalence string [ SYS$SYSROOT:[SYSEXE]ACMS$MGMT_CONFIG.ACM ]:

(ACMS$MGMT_TEMP) Enter the directory where the temp command procedures will be
  created
Equivalence string [ SYS$SPECIFIC:[ACMS_RM.TMP] ]:
     SYS$SPECIFIC:[ACMS_RM.TMP] does not exist

Do you want to create it [Y]?

      Created directory SYS$SPECIFIC:[ACMS_RM.TMP]


(ACMS$MGMT_LOG) Enter the directory for the ACMS Remote Manager's Log file
Equivalence string [ SYS$SPECIFIC:[ACMS_RM.LOG] ]:
     SYS$SPECIFIC:[ACMS_RM.LOG] does not exist

Do you want to create it [Y]?

      Created directory SYS$SPECIFIC:[ACMS_RM.LOG]


(ACMS$MGMT_CREDS_DIR) Enter the directory for the ACMS Remote Manager
Credential's
Equivalence string [ SYS$SPECIFIC:[ACMS_RM.CREDS] ]:
     SYS$SPECIFIC:[ACMS_RM.CREDS] does not exist

Do you want to create it [Y]?

      Created directory SYS$SPECIFIC:[ACMS_RM.CREDS]

(ACMS$MGMT_SNAPSHOT) Enter the directory where the snapshot data will be stored
Equivalence string [ SYS$SPECIFIC:[ACMS_RM.SNAPSHOT] ]:
     SYS$SPECIFIC:[ACMS_RM.SNAPSHOT] does not exist

Do you want to create it [Y]?

      Created directory SYS$SPECIFIC:[ACMS_RM.SNAPSHOT]

(ACMS$MGMT_ERR_LOG) Enter the directory where the Error Log data will be stored
Equivalence string [ SYS$SPECIFIC:[ACMS_RM.ERR_LOG] ]:
     SYS$SPECIFIC:[ACMS_RM.ERR_LOG] does not exist

Do you want to create it [Y]?

      Created directory SYS$SPECIFIC:[ACMS_RM.ERR_LOG]

  SYS$STARTUP:ACMS$MGMT_SETUP.COM will be executed the next time
  SYS$STARTUP:ACMSTART.COM is invoked. Please review ACMS$MGMT_SETUP.COM
  and adjust it to reflect the needs of your ACMS Remote Systems Management
  environment.

 Creating/Checking the RM Identifiers and SNMP account

    Checking for user account ACMS$SNMP

     Identifier for ACMS$MGMT_READ does not exist
```

```
%UAF-I-RDBADDMSG, identifier ACMS$MGMT_READ value %X80010087 added to rights database
     Identifier for ACMS$MGMT_WRITE does not exist

%UAF-I-RDBADDMSG, identifier ACMS$MGMT_WRITE value %X80010088 added to rights database
     Identifier for ACMS$MGMT_OPER does not exist

%UAF-I-RDBADDMSG, identifier ACMS$MGMT_OPER value %X80010089 added to rights database
     Identifier for ACMS$MGMT_SYSUPD does not exist

%UAF-I-RDBADDMSG, identifier ACMS$MGMT_SYSUPD value %X80010090 added to rights database

  The ACMS$SNMP account used to execute ACMSMGR SNMP commands is not available.

    You must supply a UIC and password for this account so that it can be
    created; this must be done before the $MGMT can be executed.

    Please enter the UIC for the ACMS$SNMP account, in the form [ggggg,nnnnnn]

* UIC: [256,256]

    Please enter a password of at least 8 characters, using only
    the following characters: ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789$_

* Password:
* Verification:

%VMSINSTAL-I-ACCOUNT, This installation creates an ACCOUNT named ACMS$SNMP.
%UAF-I-ADDMSG, user record successfully added
%UAF-I-RDBADDMSGU, identifier ACMS$SNMP value [000256,000256] added to rights
  database

    Account ACMS$SNMP created

    Updating account ACMS$SNMP to current parameters
%VMSINSTAL-I-ACCOUNT, This installation updates an ACCOUNT named ACMS$SNMP.
%UAF-I-MDFYMSG, user record(s) updated
%VMSINSTAL-I-ACCOUNT, This installation updates an ACCOUNT named ACMS$SNMP.
%UAF-I-MDFYMSG, user record(s) updated
%VMSINSTAL-I-ACCOUNT, This installation updates an ACCOUNT named ACMS$SNMP.
%UAF-I-MDFYMSG, user record(s) updated
%VMSINSTAL-I-ACCOUNT, This installation updates an ACCOUNT named ACMS$SNMP.
%UAF-I-MDFYMSG, user record(s) updated

    Account ACMS$SNMP updated

    Checking config file SYS$SYSROOT:[SYSEXE]ACMS$MGMT_CONFIG.ACM
Creating a new Remote Mananger config file SYS$SYSROOT:[SYSEXE]ACMS$MGMT_CONFIG.ACM

%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
```

```
Entity                                                  Entity   Coll     Collection
Name                                                    Type     Class    State
------------------------------------------------------------------------------
 *                                                       *        id       enabled
 *                                                       *        config   enabled
 *                                                       *        runtime  disabled
 *                                                       *        pool     disabled
 *                                                       *        error    disabled

  The ACMS Remote Manager has been configured.

  The command procedure SYS$STARTUP:ACMS$MGMT_ENV.COM should be invoked
  to define the symbols for starting the ACMS Remote Manager and running
  the Remote Manager client

Do you want to invoke ACMS$MGMT_SETUP.COM to define the Remote Manager
logicals [Y]?

ACMS Remote Manager Setup Complete

         ************************************************************
         *                                                          *
         * If you want to use the WBEM interface for the ACMS Remote   *
         * Manager, you need to invoke SYS$STARTUP:ACMS$WBEM_SETUP.COM *
         *                                                          *
         ************************************************************

    ACMS postinstallation procedure completed successfully
      at 09:36 on  22-JUN-2001

%RUN-S-PROC_ID, identification of created process is 0001AB29

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    ACMS Installation Verification Procedure started
      at 09:37 on  22-JUN-2001


ACMS V4.4-0    Current System State: STARTED   Time:  22-JUN-2001 09:38:19.90
Terminal Subsystem State:    STARTED
Queued Task Initiator State: STOPPED
System Auditing State:       ENABLED
Active ACMS Users
User Name      Submitter ID        Agent PID      Device
SYSTEM         00010014            0001AB26       RTA3:
Active Execution Controllers
Application Name                   Process Name        User Name      Exc PID
ACMSIVP                            ACMS01EXC001000     ACMS$IVP       0001AB2E


    ACMS Installation Verification Procedure completed successfully
      at 09:38 on  22-JUN-2001


    Results of IVP are in SYS$COMMON:[SYSUPD]ACMSIVP.LOG

 Installation of ACMSDEVA_ V4.4 completed at 09:38
```

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

    Creating installation data file:VMI$ROOT:[SYSUPD]ACMSDEVA_044.VMI_DATA

 VMSINSTAL procedure done at 09:38

$ lo
  SYSTEM       logged out at  22-JUN-2001 09:40:56.34
```

A.2 OpenVMS VAX Development Kit Sample Installation

This section contains a sample installation of the ACMS Version 4.4 for OpenVMS VAX development kit. The details of your actual installation may be somewhat different.

```
$ @sys$update:vmsinstal

 OpenVMS VAX Software Product Installation Procedure V7.1


It is 22-JUN-2001 at 09:51.

Enter a question mark (?) at any time for help.
* Are you satisfied with the backup of your system disk [YES]?
* Where will the distribution volumes be mounted: DUA0:[KITS]

Enter the products to be processed from the first distribution volume set.
* Products: ACMSDEVV_044
* Enter installation options you wish to use (none):
The following products will be processed:
  ACMSDEVV_ V4.4

 Beginning installation of ACMSDEVV_ V4.4 at 09:52

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

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The results of this installation are being logged in:
  SYS$COMMON:[SYSUPD]ACMS044_INSTALLATION.LOG

Installing ACMS V4.4-0, development kit

    There are four optional parts to the ACMS development kit installation:

        o  ACMS component software
        o  ACMS LSE update
        o  ACMS samples
        o  ACMS Request Interface samples

    The full installation includes all these parts.
    To install the ACMS samples or the ACMS Request Interface samples, you must
    install, or have previously installed, the ACMS component software.

* Do you want the full ACMS installation [NO]? YES
```

```
CHECKING INSTALLATION PREREQUISITES
-----------------------------------

The following software products are not available, or are below the minimum
required version:

  Product              Required  Minimum version  Current Version
  -------------------  --------  ---------------  ---------------
  DECtrace             No        2.0              (not available)

    If products marked as nonrequired are to be used with ACMS, they should be
    upgraded to at least the minimum version displayed before use.

    (required and optional software checked)

    (product licenses checked)

The following images are not installed:

  Product          Image                        Required  Startup Procedure
  ---------------  ---------------------------  --------  --------------------
  DECtrace         VMI$ROOT:[SYSLIB]EPC$FUNC    No        EPC$STARTUP.COM

    The images marked as required must be installed before this installation can
    be successfully completed. These images are usually installed by executing
    the product's startup procedure. For more information, refer to product
    specific documentation and the VMS INSTALL Utility Manual.

    (installed images checked)

    (privileges checked)

    (disk space checked)

    (disk quotas checked)

    (system parameters checked)

    (process account quotas checked)

ACMS PREVIOUS INSTALLATION
--------------------------

    (no previous installation of ACMS found)

ACMS LSE CHECK
--------------

    (LSE available -- LSE will be updated for ACMS)

ACMS Oracle Trace CHECK
-----------------------

    Oracle Trace is not being updated for ACMS because it is not available, not
    started, or Rdb is not started.

    The ACMS facility definition will be stored in SYS$SHARE:EPC$FACILITY.TLB.
    For more information on inserting this definition into the Oracle Trace
    administrative database, refer to the Oracle Trace documentation.

ACMS OLD SAMPLE FILES
---------------------

    (no old sample files found)

ACMS SHUTDOWN CHECK
-------------------

    ACMSTOP.COM was not found. If ACMS was previously installed on this
    system, make sure it is shut down before proceeding with this
    installation.


ACMS POSTINSTALLATION PROCEDURE
-------------------------------

    (postinstallation procedure will be run automatically after installation)
```

```
    Please read the chapter After Installing ACMS, in the ACMS Installation
    Guide, for manual tasks that you should consider after installing ACMS.

ACMS SYSTEM ROOTS CHECK
-----------------------

    The following ACMS-related files were found in system-specific roots:

      AMAMA$DKA500:[SYS0.SYSEXE]SYSUAF.DAT

    The files listed above, found in system-specific roots, may have an adverse
    effect in the installation of ACMS, execution of the IVP, or subsequent
    execution of applications. If you encounter problems during or after the
    installation, Compaq advises you to review the list and delete or rename
    these files, or move them to cluster-common directories, and then reinstall
    ACMS. The list of files is also recorded in
    SYS$COMMON:[SYSUPD]ACMS044_INSTALLATION.LOG.


ACMS IVP
--------

* Do you want to execute the Installation Verification Procedure [YES]?

    Checking IVP user account ACMS$IVP

  The ACMS$IVP account used to execute the IVP is not available.

    You must supply a UIC and password for this account so that it can be
    created; this must be done before the IVP can be executed.

    Please enter the UIC for the ACMS$IVP account, in the form [ggggg,nnnnnn]

* UIC: [400,200]

    Please enter a password of at least 8 characters, using only
    the following characters: ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789$_


* Password:
* Verification:

SUMMARY OF THIS ACMS INSTALLATION
---------------------------------

    The following steps will be taken to complete this installation:

    o  The ACMS system will be shut down (via SYS$STARTUP:ACMSTOP.COM)
    o  ACMS component software will be installed
    o  LSE environment will be updated for ACMS
    o  Oracle Trace facility text library will be updated for ACMS
    o  CDD-related ACMS files will be installed
    o  ACMS samples will be installed
    o  ACMS Request Interface samples will be installed
    o  The ACMS postinstallation procedure will be executed
    o  The ACMS IVP will be executed

    The rest of the installation will take approximately 15 minutes.
    Execution of the IVP will take approximately 3 minutes.

    Note that this time is heavily dependent your system load, hardware
    and kit media. The time mentioned was measured on a stand-alone VAX 8530
    system with a disk-resident kit.  Your time may vary.

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

The interactive portion of this installation is complete; no further questions
will be asked until the post installation.


    Installation of ACMS started
      at 09:54 on  22-JUN-2001
```

```
    Restoring savesets
%VMSINSTAL-I-RESTORE, Restoring product save set J ...
%VMSINSTAL-I-RESTORE, Restoring product save set K ...
%VMSINSTAL-I-RESTORE, Restoring product save set L ...
%VMSINSTAL-I-RESTORE, Restoring product save set M ...
%VMSINSTAL-I-RESTORE, Restoring product save set N ...
%VMSINSTAL-I-RESTORE, Restoring product save set O ...
%VMSINSTAL-I-RESTORE, Restoring product save set P ...
    Checking/creating ACMS directories
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
  VMI$ROOT:[SYSHLP.EXAMPLES.ACMSMGMT].
%CREATE-I-EXISTS, VMI$ROOT:[SYSHLP.EXAMPLES.ACMSMGMT] already exists
    Updating LSE
    Updating Oracle Trace definition text library
    Deleting old CDD$TOP.ACMS$DIR.ACMS$WORKSPACES
    Creating CDD$TOP.ACMS$DIR.ACMS$WORKSPACES
    Deleting old RI sample CDD nodes...
    Restoring RI sample application CDD nodes...
%VMSINSTAL-I-ACCOUNT, This installation creates an ACCOUNT named ACMS$IVP.
%UAF-I-PWDLESSMIN, new password is shorter than minimum password length
%UAF-I-ADDMSG, user record successfully added
%UAF-I-RDBADDMSGU, identifier ACMS$IVP value [000400,000200] added to rights
  database

    Account ACMS$IVP created

    Updating account ACMS$IVP to current parameters
%VMSINSTAL-I-ACCOUNT, This installation updates an ACCOUNT named ACMS$IVP.
%UAF-I-MDFYMSG, user record(s) updated
%VMSINSTAL-I-ACCOUNT, This installation updates an ACCOUNT named ACMS$IVP.
%UAF-I-MDFYMSG, user record(s) updated
%VMSINSTAL-I-ACCOUNT, This installation updates an ACCOUNT named ACMS$IVP.
%UAF-I-MDFYMSG, user record(s) updated
%VMSINSTAL-I-ACCOUNT, This installation updates an ACCOUNT named ACMS$IVP.
%UAF-I-MDFYMSG, user record(s) updated

    Account ACMS$IVP updated

    ACMS$IVP account created/updated -- IVP selected to run
    Providing files
    Provided DCL command file ACMS.CLD
    Provided DCL help file ACMSHELP.HLP
    All other files provided - list is in
      AMAMA$DKA500:[SYS0.SYSCOMMON.][SYSEXE]ACMS044_FILES.DAT

    Installation of ACMS completed successfully
      at 10:03 on  22-JUN-2001

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

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    ACMS postinstallation procedure started
      at 10:07 on  22-JUN-2001
```

```
        ************************************************************
        *                                                          *
        *  NOTE: Refer to Chapter 4 in the ACMS Installation Guide *
        *         for other important postinstallation work.       *
        *                                                          *
        ************************************************************

Checking/creating logical ACMS$DIRECTORY
----------------------------------------

  The procedure checks for the logical ACMS$DIRECTORY, which must be defined
  /SYSTEM /SUPERVISOR and must point to an existing disk directory.

    ACMS$DIRECTORY is not defined as a /SYSTEM /SUPERVISOR logical

Please supply an equivalence string for the ACMS$DIRECTORY logical.
Equivalence string [ SYS$SYSDEVICE:[ACMS.ADB] ]:

    ACMS$DIRECTORY is defined as SYS$SYSDEVICE:[ACMS.ADB]
    ACMS$DIRECTORY logical is acceptable


                        (press <RETURN> to continue)

Converting ACMSGEN parameter files
----------------------------------

  This procedure searches for all ACMSGEN parameter files located in
  SYS$SYSDEVICE:[SYS*.SYSEXE] and SYS$COMMON:[SYSEXE], and converts
  them to be compatible with the current version of ACMS. If you are
  upgrading from a version of ACMS prior to V4.0, you must perform
  this conversion.

Do you want to convert existing ACMSGEN parameter files [Y]?

    Converting SYS$SYSDEVICE:[SYS0.SYSEXE]ACITVE.ACM
    Converting SYS$COMMON:[SYSEXE]ACMSPAR.ACM

    The ACMSGEN parameter files listed above have been converted; if other
    parameter files exist on your system, they must be updated as follows:

        $ RUN SYS$SYSTEM:ACMSGEN
        ACMSGEN> USE file-specification
        ACMSGEN> WRITE file-specification
        ACMSGEN> EXIT

                        (press <RETURN> to continue)

Converting ACMS UDF and DDF files
---------------------------------

  The procedure searches for the files pointed to by the ACMSUDF and ACMSDDF
  logicals, if they exist, and then for AMCSUDF.DAT or ACMSDDF.DAT in
  SYS$SYSROOT:[SYS*], and converts them to be compatible with the current
  version of ACMS. If you are upgrading from a version of ACMS prior to V3.1,
  you must perform this conversion.

Do you want to convert existing ACMS UDF and DDF files [Y]?

    Converting UDF file SYS$COMMON:[SYSEXE]ACMSUDF.DAT
    Converting DDF file SYS$COMMON:[SYSEXE]ACMSDDF.DAT

                        (press <RETURN> to continue)

Checking/creating ACMS UDF and DDF files
----------------------------------------

  The procedure checks for ACMSUDF.DAT and ACMSDDF.DAT, first through the
  logicals ACMSUDF and ACMSDDF, and then in SYS$COMMON:[SYSEXE], and
  creates them if they're not already present from a previous installation.

    No /SYSTEM /EXECUTIVE logical ACMSUDF found
    SYS$COMMON:[SYSEXE]ACMSUDF.DAT exists
```

```
    No /SYSTEM /EXECUTIVE logical ACMSDDF found
    SYS$COMMON:[SYSEXE]ACMSDDF.DAT exists

                          (press <RETURN> to continue)

Checking/creating ACMS_SETUP.COM
--------------------------------

  The procedure checks for site-specific startup procedure ACMS_SETUP.COM in
  SYS$COMMON:[SYS$STARTUP], and creates a template if the file doesn't
  already exist.

    Creating SYS$COMMON:[SYS$STARTUP]ACMS_SETUP.COM

  ACMS_SETUP.COM will be executed the next time you invoke
  SYS$STARTUP:ACMSTART.COM. Please review ACMS_SETUP.COM and adjust it to
  reflect the needs of your ACMS environment. It can be used to perform
  these site-specific startup steps:
    - define the ACMS logical ACMS$DIRECTORY
    - install ACMS utilities as shareable images
    - define ACMS logicals such as ACMS$AUDIT_LOG, ACMS$SWL_LOG,
      ACMS$NOTICE, ACMS$EDIT, ADU$EDIT and SWLUP$EDIT
    - start the ACMS system and applications

                          (press <RETURN> to continue)

Checking/copying ACMS menu files
--------------------------------

  The procedure checks for the ACMS command menu and default user menu in
  ACMS$DIRECTORY, and copies them from SYS$COMMON:[SYSEXE] if they're not
  already in ACMS$DIRECTORY from a previous installation.

    ACMS$DIRECTORY:ACMSCMD.MDB already exists -- not copied
    ACMS$DIRECTORY:ACMS.MDB already exists -- not copied

         ************************************************************
         *                                                          *
         *  NOTE: Refer to Chapter 4 in the ACMS Installation Guide *
         *         for other important postinstallation work.       *
         *                                                          *
         ************************************************************


Checking/creating ACMS$MGMT_SETUP.COM
-------------------------------------


         ************************************************************
         *                                                          *
         *  NOTE: Refer to the Managing the Remote Manager chapter  *
         *  in the ACMS Remote Systems Management Guide for more    *
         *  information.                                            *
         *                                                          *
         ************************************************************


Do you want to SETUP and CONFIGURE the ACMS Remote System Manager [Y]?

    Creating SYS$STARTUP:ACMS$MGMT_SETUP.COM

Do you want to allow Proxy Authorization [Y]?

(ACMS$MGMT_CONFIG) Enter the file specification for the configuration file used
  by the ACMS Remote Manager
Equivalence string [ SYS$SYSROOT:[SYSEXE]ACMS$MGMT_CONFIG.ACM ]:

(ACMS$MGMT_TEMP) Enter the directory where the temp command procedures will be
  created
Equivalence string [ SYS$SPECIFIC:[ACMS_RM.TMP] ]:
     SYS$SPECIFIC:[ACMS_RM.TMP] does not exist

Do you want to create it [Y]?
```

```
      Created directory SYS$SPECIFIC:[ACMS_RM.TMP]

(ACMS$MGMT_LOG) Enter the directory for the ACMS Remote Manager's Log file
Equivalence string [ SYS$SPECIFIC:[ACMS_RM.LOG] ]:
     SYS$SPECIFIC:[ACMS_RM.LOG] does not exist

Do you want to create it [Y]?

      Created directory SYS$SPECIFIC:[ACMS_RM.LOG]

(ACMS$MGMT_CREDS_DIR) Enter the directory for the ACMS Remote Manager
Credential's
Equivalence string [ SYS$SPECIFIC:[ACMS_RM.CREDS] ]:
     SYS$SPECIFIC:[ACMS_RM.CREDS] does not exist

Do you want to create it [Y]?

      Created directory SYS$SPECIFIC:[ACMS_RM.CREDS]

(ACMS$MGMT_SNAPSHOT) Enter the directory where the snapshot data will be stored
Equivalence string [ SYS$SPECIFIC:[ACMS_RM.SNAPSHOT] ]:
     SYS$SPECIFIC:[ACMS_RM.SNAPSHOT] does not exist

Do you want to create it [Y]?

      Created directory SYS$SPECIFIC:[ACMS_RM.SNAPSHOT]

(ACMS$MGMT_ERR_LOG) Enter the directory where the Error Log data will be stored
Equivalence string [ SYS$SPECIFIC:[ACMS_RM.ERR_LOG] ]:
     SYS$SPECIFIC:[ACMS_RM.ERR_LOG] does not exist

Do you want to create it [Y]?

      Created directory SYS$SPECIFIC:[ACMS_RM.ERR_LOG]

  SYS$STARTUP:ACMS$MGMT_SETUP.COM will be executed the next time
  SYS$STARTUP:ACMSTART.COM is invoked. Please review ACMS$MGMT_SETUP.COM
  and adjust it to reflect the needs of your ACMS Remote Systems Management
  environment.


 Creating/Checking the RM Identifiers and SNMP account


    Checking for user account ACMS$SNMP

     Identifier for ACMS$MGMT_READ does not exist

%UAF-I-RDBADDMSG, identifier ACMS$MGMT_READ value %X8001074D added to rights database
     Identifier for ACMS$MGMT_WRITE does not exist

%UAF-I-RDBADDMSG, identifier ACMS$MGMT_WRITE value %X8001074E added to rights database
     Identifier for ACMS$MGMT_OPER does not exist

%UAF-I-RDBADDMSG, identifier ACMS$MGMT_OPER value %X8001074F added to rights database
     Identifier for ACMS$MGMT_SYSUPD does not exist

%UAF-I-RDBADDMSG, identifier ACMS$MGMT_SYSUPD value %X8001074G added to rights database

  The ACMS$SNMP account used to execute ACMSMGR SNMP commands is not available.

    You must supply a UIC and password for this account so that it can be
    created; this must be done before the $MGMT can be executed.

    Please enter the UIC for the ACMS$SNMP account, in the form [ggggg,nnnnnn]

UIC: [400,201]

    Please enter a password of at least 8 characters, using only
    the following characters: ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789$_

* Password:
* Verification:

    Account ACMS$SNMP created
```

```
    Updating account ACMS$SNMP to current parameters

    Account ACMS$SNMP updated

    Checking config file SYS$SYSROOT:[SYSEXE]ACMS$MGMT_CONFIG.ACM
Creating a new Remote Mananger config file SYS$SYSROOT:[SYSEXE]ACMS$MGMT_CONFIG.ACM

%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed
%ACMSMGMT-S-NORMAL, Operation completed

Entity                                          Entity   Coll     Collection
Name                                            Type     Class    State
-------------------------------------------------------------------------------
 *                                               *       id       enabled
 *                                               *       config   enabled
 *                                               *       runtime  disabled
 *                                               *       pool     disabled
 *                                               *       error    disabled

  The ACMS Remote System Manager has been configured.

  The command procedure SYS$STARTUP:ACMS$MGMT_ENV.COM should be invoked
  to define the symbols for starting the ACMS Remote Manager and running
  the Remote Manager client


    ACMS postinstallation procedure completed successfully
      at 10:40 on  22-JUN-2001

%RUN-S-PROC_ID, identification of created process is 3C600125

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    ACMS Installation Verification Procedure started
      at 10:41 on  22-JUN-2001
```

```
ACMS V4.4-0    Current System State: STARTED   Time:  22-JUN-2001 10:43:21.94
Terminal Subsystem State:    STARTED
Queued Task Initiator State: STOPPED
System Auditing State:       ENABLED
Active ACMS Users
User Name      Submitter ID        Agent PID      Device
SYSTEM         00010014            3C600121       RTA1:
Active Execution Controllers
Application Name                   Process Name        User Name      Exc PID
ACMSIVP                            ACMS01EXC001000     ACMS$IVP       3C60012A

    ACMS Installation Verification Procedure completed successfully
      at 10:43 on  22-JUN-2001


    Results of IVP are in SYS$COMMON:[SYSUPD]ACMSIVP.LOG

 Installation of ACMSDEVV_ V4.4 completed at 10:43

Enter the products to be processed from the next distribution volume set.
* Products: exit
 VMSINSTAL procedure done at 10:44
```

B

Registering and Loading Your ACMS License

You must register and load your ACMS license before you can install or use ACMS. This appendix explains how to register and load your license.

Section B.1 describes an ACMS License Product Authorization Key (PAK).

Section B.2 describes how to load and register your ACMS license using the command procedure VMSLICENSE.COM.

Section B.3 describes how to load and register your ACMS license using the LICENSE DCL commands.

For more information on OpenVMS licensing, see *OpenVMS License Management Utility Manual*, and the DCL command HELP LICENSE.

B.1 Sample ACMS License PAK

The ACMS License PAK is a paper document that contains information about your ACMS license. When you register your ACMS license on your system, information from this document is loaded into the license database.

Each PAK has fourteen fields of information. Depending on your license agreement, some fields might contain data, while others might be blank.

Table B–1 lists all the fields on a PAK, along with typical data for an ACMS PAK.

Table B–1 Product Authorization Key Fields

Field Name	Typical ACMS Information
ISSUER:	DEC
AUTHORIZATION NUMBER:	US-10-THM-0
PRODUCT NAME:	ACMS[1]
PRODUCER:	DEC
NUMBER OF UNITS:	1200
VERSION:	4.4
PRODUCT RELEASE DATE:	(none)
KEY TERMINATION DATE:	(none)
AVAILABILITY CODE:	F
ACTIVITY TABLE CODE:	(none)

[1]This is the license name; one of the following: ACMS, ACMS–RT, ACMS–RT–USER, ACMS–REM, ACMS–REM–USER.

(continued on next page)

Table B–1 (Cont.) Product Authorization Key Fields

Field Name	Typical ACMS Information
KEY OPTIONS:	MOD_UNITS
PRODUCT TOKEN:	(none)
HARDWARE I.D.:	(none)
CHECKSUM:	1-NTIN-DCIN-TCTA-NYMR

B.2 Using VMSLICENSE.COM

You can register and load your ACMS license using the OpenVMS command procedure VMSLICENSE.COM. To invoke this procedure, first log in to the system manager's account, SYSTEM, and then execute the following command:

```
$ @SYS$UPDATE:VMSLICENSE
```

The procedure displays a menu; press Return to choose the default menu item, registering a PAK. The procedure then asks if you have your PAK; press Return to choose the default answer, YES.

The procedure now asks you to supply the data for each field on your PAK. For each field, type in the data exactly as it appears on the PAK.

Note

A PAK cannot have both a version and a product release date. If you provide version information, the procedure does not ask for a product release date.

When you have supplied all the PAK information, the procedure displays the information you provided, in the same form as it appears on the PAK, and asks if it is correct. If all the information is correct, press Return to choose the default answer, YES.

The procedure then registers the PAK in the license database, and asks if you want to load the license. Press Return to choose the default answer, YES.

Note

The license must be registered *and* loaded on your system before you can install and use ACMS.

When you are finished, select menu item 99 to exit from the procedure.

B.3 Using LICENSE DCL Commands

You can register and load your ACMS license using the DCL commands LICENSE REGISTER and LICENSE LOAD. Log in to the system manager's account, SYSTEM, before executing these commands.

The LICENSE REGISTER command accepts parameters and qualifiers that correspond to the fields on your PAK. The general syntax for this command is:

LICENSE REGISTER product-name [/qualifiers]

Table B–2 lists all the fields on a PAK, along with their LICENSE LOAD parameters and qualifiers.

Table B–2 LICENSE LOAD Parameters and Qualifiers

Field Name	LICENSE REGISTER Qualifier
ISSUER:	/ISSUER="string"
AUTHORIZATION NUMBER:	/AUTHORIZATION=string
PRODUCT NAME:	(product-name parameter)
PRODUCER:	/PRODUCER="string"
NUMBER OF UNITS:	/UNITS=number
VERSION:	/VERSION=nn.m
PRODUCT RELEASE DATE:	/RELEASE_DATE=date
KEY TERMINATION DATE:	/TERMINATION_DATE=date
AVAILABILITY CODE:	/AVAILABILITY=code *or* /AVAILABILITY=CONSTANT=number
ACTIVITY TABLE CODE:	/ACTIVITY=code *or* /ACTIVITY=CONSTANT=number
KEY OPTIONS:	/OPTION=keyword
PRODUCT TOKEN:	/TOKEN=string
HARDWARE I.D.:	/HARDWARE_ID=string
CHECKSUM:	/CHECKSUM=string

For example, the following DCL commands register and load the PAK information supplied in Table B–1:

```
$ LICENSE REGISTER ACMS -
_$ /ISSUER="DEC" -
_$ /AUTHORIZATION=US-10-THM-0 -
_$ /PRODUCER="DEC" -
_$ /UNITS=1200 -
_$ /VERSION=4.4 -
_$ /AVAILABILITY=F -
_$ /OPTION=MOD_UNITS -
_$ /CHECKSUM=1-NTIN-DCIN-TCTA-NYMR
$  LICENSE LOAD ACMS
```

C

Modifying ACMS Help and Message Text

This appendix describes how to modify ACMS help and message text, for example, to translate them to languages other than English.

The ACMS kit includes a save set that contains the files you can use to translate the contents of ACMS message files and help text to languages other than English. This section provides information on how to restore the save set from the kit.

All source files for the messages and help text are stored in a BACKUP save set in the kit. Restore this save set to a directory and modify it there. Follow these instructions to restore the save set:

1. Mount the kit.

   If the kit is on disk, mount it using the /OVERRIDE=ID qualifier. For example, to mount a kit on RA90 drive 100DUA31:, use the following command:

   ```
   $ MOUNT/OVERRIDE=ID $100$DUA31:
   ```

2. Restore the save set.

   To restore the save set, use the DCL command BACKUP and the save set name in the following format:

   BACKUP/LOG kit-device:<kit-name>.I /SAVE disk:[directory]

   The <kit-name> parameter denotes the software kit you are installing:

   - ACMSDEVA_044 — if you are installing the Alpha development kit.
   - ACMSRTOA_044 — if you are installing the Alpha run-time kit.
   - ACMSREMA_044 — if you are installing the Alpha remote-access kit.
   - ACMSDEVV_044 — if you are installing the VAX development kit.
   - ACMSRTOV_044 — if you are installing the VAX run-time kit.
   - ACMSREMV_044 — if you are installing the VAX remote-access kit.

   Restore the save set to an empty directory. For example, if you have an ACMS Alpha development kit that is mounted on DKA1: and you have created the directory DISK1:[MESSAGES] to hold the files, use the following DCL command BACKUP to restore the save set:

   ```
   $ BACKUP/LOG DKA1:ACMSDEVA_044.I/SAVESET DISK1:[MESSAGES]
   ```

   The ACMS save sets are stored in the [0,0] directory on disk kits. If, for example, you have an ACMS Alpha run-time kit that is mounted on 100DUA31:, and you have created the directory DISK1:[MESSAGES] to hold the files, use the following DCL BACKUP command to restore the save set:

```
$ BACKUP/LOG $100$DUA31:[0,0]ACMSRTOA_044.I/SAVESET -
_$ DISK1:[MESSAGES]*
```

3. Make changes to the files.

   After restoring the kit, you can print the file CHANGING_MESSAGES.MEM, which contains instructions on how to change the help text files, change the message files, and install the modified files on the target system. This file also includes instructions to change the character ordering sequence used by the CONTROL FIELD and SELECT FIRST statements.

D

Creating Transaction Logs for DECdtm Services

If you want to use DECdtm services on a node, you must create a transaction log for that node. In an OpenVMS Cluster system, you must create a transaction log for each node in the cluster. This appendix describes the following:

- Prerequisites for creating a transaction log
- Planning the size and location of transaction logs
- Setting up and creating transaction logs
- Example of creating transaction logs for a cluster

For more information about DECdtm services and the commands described in this appendix, see the OpenVMS documentation set.

D.1 Prerequisites for Creating a Transaction Log

Before you create a transaction log for a node, the following prerequisites must be met:

- You must have the SYSPRV privilege.
- The node must be running OpenVMS Alpha Version 6.2 or higher, excluding Version 7.0.
- The node must be running OpenVMS VAX Version 6.2 or higher, excluding Version 7.0.

D.2 Planning the Size and Location of Transaction Logs

The size and location of transaction logs can affect the performance of your system. Before you create transaction logs, plan how big to make the logs, and where you are going to put them. Although you can later move a transaction log and change the size to improve performance, careful planning reduces the need for changes.

If the performance of your system is adversely affected by either the location or size of the logs, refer to the OpenVMS documentation for the following information:

- Checking whether or not the transaction logs are the correct size
- Changing the size of transaction logs
- Moving transaction logs

Creating Transaction Logs for DECdtm Services
D.2 Planning the Size and Location of Transaction Logs

D.2.1 Determining the Size of Transaction Logs

Note

These guidelines for determining the size of a transaction log are approximate. When planning transaction logs, overestimate, rather than underestimate, the size of the transaction log.

When you create transaction logs, you specify the size of the log in blocks. By default, the size of each transaction log is 4000 blocks. This default size gives acceptable performance on most systems.

If you know the rate of transactions and their duration, use the following algorithm to calculate the transaction log size:

```
size = 40 * rate * duration
```

In this algorithm:

- *size* is the size (in blocks) of the transaction log.
- *rate* is the average number of transactions executed per second.
- *duration* is the average duration (in seconds) of each transaction.

For example, if the rate is 10 transactions per second and the duration is 12 seconds, the calculation is as follows:

```
size = 40 * 10 * 12 = 4800 blocks
```

In this example, the recommended size for the transaction log is 4800 blocks.

If you do not know the rate and duration of transactions, accept the default value of 4000 blocks.

D.2.2 Determining the Location for Transaction Logs

When deciding where to put the transaction log for a node, consider the following factors:

- Speed

  Select a high performance disk, such as a solid state disk, that is not heavily used.

- Availability

  High availability is achieved when you have multiple access paths to the data. Use a disk that can be accessed by the other nodes in the cluster when the node is down. This reduces the time that other transactions in the cluster are blocked while waiting for recovery from the node failure.

- Reliability

  Reliability is achieved when you have multiple copies of the data. A shadowed disk is more reliable than a nonshadowed disk, but may be slower than a nonshadowed disk because transaction logs are almost exclusively write-only.

You may have to choose which of these factors are most important. For example, if the node is a workstation, you may choose to give up speed for availability and reliability, by putting the transaction log on a shadowed HSC-based disk, instead of on a faster disk attached to the workstation.

If you have an OpenVMS Cluster, each node must have its own transaction log. To improve the performance of the transactions, distribute the logs among different disks on the system.

Note

Ensure that the disk has sufficient contiguous space to hold the transaction log. A discontiguous transaction log results in poor transaction performance.

D.3 Setting Up and Creating Transaction Logs

This section describes how to set up and create transaction logs. Before creating a transaction log, consider the recommendations for sizing and locating the log, as described in Section D.2. For an example of how to set up and create transaction logs for a three-node OpenVMS Cluster, refer to Section D.4.

To set up and create a transaction log:

1. Identify the directories where you want to put the transaction logs.
2. Create the log file in the directories.

D.3.1 Setting Up the Transaction Logs

DECdtm services uses the logical SYS$JOURNAL to locate transaction logs. For a single node, you must define SYS$JOURNAL to point to the directory that will contain the transaction log. In an OpenVMS Cluster, you define SYS$JOURNAL on each node as a search list that points to all the directories that will contain the transaction logs for the cluster. If you put transaction logs for all nodes in one directory, SYS$JOURNAL on each node points to that directory.

You must define SYS$JOURNAL in the system logical name table, in executive mode.

Note

Remember to define SYS$JOURNAL in both the common and node-specific versions of the SYS$STARTUP:SYLOGICALS.COM command procedure.

D.3.2 Creating the Transaction Logs

To create a transaction log file, use the CREATE LOGFILE command of the Log Manager Control Program (LMCP) Utility:

```
$ RUN SYS$SYSTEM:LMCP
LMCP>  CREATE LOGFILE file-spec /SIZE=size
LMCP>  EXIT
```

In this example:

- *file-spec* is the full file specification of the transaction log. The name of the file must be SYSTEM$*node-name*, where *node-name* is the name of the node. The file extension must be .LM$JOURNAL. If you omit the file extension in the command line, the file specification has the extension .LM$JOURNAL by default.

- *size* is the size of the transaction log in blocks. If you omit the /SIZE qualifier, the transaction log is created with the default size of 4000 blocks.

D.4 Example of Setting Up and Creating Transaction Logs

This section shows you how to set up and create transaction logs for a three-node OpenVMS Cluster system. In this example, cluster members and transaction log details are listed in Table D–1.

Table D–1 Transaction Log Requirements

	Transaction Log	
Node Name	**Location**	**Size (In Blocks)**
ORANGE	DISK$USER1:[LOGFILES]	5000
RED	DISK$USER3:[LOGFILES]	4000
GREEN	DISK$LOG:[LOGFILES]	6000

To set up and create the transaction logs for the three-node OpenVMS Cluster, follow these steps. Before starting, ensure that all three disks are mounted on all three nodes.

1. For each node, define the logical SYS$JOURNAL to be a search list of all the directories in Table D–1, with the following command:

```
$  DEFINE /SYSTEM /EXECUTIVE SYS$JOURNAL -
_$ DISK$USER1:[LOGFILES], -
_$ DISK$USER3:[LOGFILES], -
_$ DISK$LOG:[LOGFILES]
```

Note

You can enter all of the commands to set up the cluster from one node, using the SYSMAN Utility.

2. Edit the common and node-specific versions of SYS$STARTUP:SYLOGICALS.COM files to include the definition of SYS$JOURNAL.

3. Enter the following commands to create the transaction log files:

```
$ RUN SYS$SYSTEM:LMCP
LMCP> CREATE LOGFILE DISK$USER1:[LOGFILES]SYSTEM$ORANGE/SIZE=5000
LMCP> CREATE LOGFILE DISK$USER3:[LOGFILES]SYSTEM$RED
LMCP> CREATE LOGFILE DISK$LOG:[LOGFILES]SYSTEM$GREEN/SIZE=6000
LMCP> EXIT
```

If you omit the /SIZE qualifier (for example, when creating the log for node RED), the transaction log is created with the default size of 4000 blocks.

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