

HP ACMS for OpenVMS

Version 5.1B Release Notes

March 2009

This document provides the release notes for the *HP ACMS for OpenVMS Version 5.1B* product. These release notes describe known problems, restrictions and include hints and suggestions to help you use this product.

Revision/Update Information:	This is a revised manual.
Operating System:	OpenVMS Alpha Version 8.2 or later OpenVMS Integrity servers Version 8.2-1 or later.
Software Version:	<i>HP ACMS for OpenVMS</i> , Version 5.1B HP ACMS Version 5.1B is also tested with layered products. Refer to <i>Layered Product Dependencies</i> for more information.

Hewlett-Packard Company
Palo Alto, California

© Copyright 2009 Hewlett-Packard Development Company, L.P.

Confidential computer software. Valid license from HP required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors, or omissions contained herein.

Motif is a registered trademark of The Open Group.

Oracle is a registered US trademark of Oracle Corporation, Redwood City, California.

Oracle CODASYL DBMS, Oracle CDD/Administrator, Oracle CDD/Repository, Oracle Rdb, Oracle SQL/Services, Oracle Trace, and Oracle Trace Collector are registered US trademarks of Oracle Corporation, Redwood City, California.

Printed in the US

Contents

Preface	v
1 ACMS Overview	
2 Installation Guidelines	
2.1 General Installation Information	2-1
2.2 Prerequisites for Installation	2-1
2.2.1 Installing on OpenVMS Alpha	2-2
2.2.2 Installing on OpenVMS Integrity server	2-2
2.3 ACMSTART.COM Installs DECC\$SHR and ACMS\$TRACE_SHR.EXE ...	2-2
2.4 ACMS Version Identification File (ACMS_ECO_LEVEL.DAT)	2-3
2.5 Reinstall ACMS After OpenVMS Upgrades	2-3
2.6 Programming Examples on ACMS Kit	2-3
2.7 Installing Oracle Trace after ACMS Installation	2-4
3 Enhancements in ACMS	
3.1 Enhancements in ACMS Version 5.1B	3-1
3.1.1 EXIT Handler Implementation	3-1
3.2 Enhancements in ACMS Version 5.1 ECO1	3-1
3.2.1 Support for more Command Processor (CP) Processes on Alpha	3-1
3.3 Enhancements in ACMS Version 5.1	3-1
3.3.1 Support for more Command Processor (CP) Processes on Integrity servers	3-1
3.3.2 Support for 5 digit TNA device to log on to the ACMS system	3-2
4 Problems Fixed	
4.1 Problems Fixed in Version 5.1B	4-1
4.2 Problems Fixed in Version 5.1 ECO1	4-2
4.3 Problems Fixed in Version 5.1	4-2
4.4 Problems Fixed in Version 5.0A	4-3
4.5 Problems Fixed in Version 5.0	4-3
5 Known Problems	
5.1 Problems that Exist from ACMS Version 5.0	5-1

6 Restrictions

6.1	Restrictions in ACMS Version 5.1B	6-1
6.2	Restrictions in ACMS Version 5.1 ECO1	6-1
6.3	Restrictions in ACMS Version 5.1	6-1
6.4	Restrictions in ACMS Version 5.0A	6-1
6.5	Restrictions in ACMS Version 5.0	6-1
6.6	Restrictions in ACMS Version 4.5A	6-1
6.7	Restrictions Continued from ACMS Version 4.5	6-1
6.8	Restrictions Continued from ACMS Version 4.3	6-5
6.9	Restrictions Continued from ACMS Version 4.1	6-7

7 General Information

7.1	Periodically Delete Remote Manager Credential Files	7-1
7.2	Add SYSLCK Privilege to Accounts that run ACMS Processes	7-1
7.3	Setting Remote Manager Stacksize Parameters	7-1
7.4	ACMSTRC\$_NOSUCHPGM Warning Message	7-2
7.5	ACMS Does Not Support Pixel-Based Display Devices	7-2
7.6	ACMS\$TRACE_SHR.EXE Cannot be Installed Resident	7-2
7.7	Remote Manager Shutdown Causes Accounting Records to be Written	7-2
7.8	Logical Names for Workspace Pool Sizes in EXC	7-3
7.9	Use Logical Names for File Allocation in ACMSATL	7-3
7.10	New Logical Name Must be Defined for RI Agents and User-Written Agents	7-4
7.11	Cache Directories for Application and Forms Files Should Not Be Write Protected	7-5
7.12	No Longer Necessary to Store ACMS Definitions in CDD	7-5
7.13	Formatting and Naming HP DECforms Form Image Files for Integrity server Submitter nodes	7-5

8 Troubleshooting Tips

8.1	Calling in a Problem to Your HP Support Representative	8-1
8.2	Additional ACMS Information you can Collect	8-3
8.2.1	Reporting Problems with ACMS Utilities	8-4
8.2.2	Reporting Problems with the ACMS Run-Time System	8-5
8.2.3	Reporting Problems with the Remote Manager Web Agent	8-7

Tables

2-1	Alpha Kits	2-1
2-2	Integrity server Kits	2-1

Preface

These notes provide the following information about the Version 5.1B release of the *HP ACMS for OpenVMS* software:

- ACMS Overview
- Installation Changes
- Problems Fixed
- Known Problems
- Restrictions
- General Information
- Troubleshooting Tips

Intended Audience

This document is intended for all ACMS users.

Structure of This Document

This document has the following structure:

Chapter 1	Gives a brief overview of the ACMS product.
Chapter 2	Describes any installation changes for this version of ACMS.
Chapter 3	Describes the enhancements for this version of ACMS.
Chapter 4	Describes problems that have been fixed with this version of ACMS.
Chapter 5	Lists problems that can occur with this version of ACMS.
Chapter 6	Lists any restrictions.
Chapter 7	Provides general release information.
Chapter 8	Describes how to report a software problem.

Layered Product Dependencies

To use HP ACMS Version 5.1B for OpenVMS, you must have the following products installed on your system:

- Oracle CDD/Repository Version 7.2 or later
- Oracle RDB Version 7.2 or later
- Oracle Trace Version 7.2.0.1 or later
- HP DECforms Version 3.2 or later

HP ACMS Version 5.1B for OpenVMS is also tested with the following layered products:

- Oracle CODASYL DBMS Version 7.2

- HP DECnet Phase V for OpenVMS (with Phase IV protocols)
- HP DECforms Version 3.2 or later

Related Documents

The following table lists the books in the HP ACMS for OpenVMS documentation set.

ACMS Information	Description
HP ACMS Version 5.1B for OpenVMS Release Notes†	Information about the latest release of the software
HP ACMS Version 5.0A for OpenVMS Installation Guide	Description of installation requirements, the installation procedure, and postinstallation tasks.
<i>HP ACMS for OpenVMS Getting Started</i>	Overview of ACMS software and documentation. Tutorial for developing a simple ACMS application. Description of the AVERTZ sample application.
<i>HP ACMS for OpenVMS Concepts and Design Guidelines</i>	Description of how to design an ACMS application.
<i>HP ACMS for OpenVMS Writing Applications</i>	Description of how to write task, task group, application, and menu definitions using the Application Definition Utility. Description of how to write and migrate ACMS applications on an OpenVMS Alpha system.
<i>HP ACMS for OpenVMS Writing Server Procedures</i>	Description of how to write programs to use with tasks and how to debug tasks and programs. Description of how ACMS works with the APPC/LU6.2 programming interface to communicate with IBM CICS applications. Description of how ACMS works with third-party database managers, with Oracle used as an example.
<i>HP ACMS for OpenVMS Systems Interface Programming</i>	Description of using Systems Interface (SI) Services to submit tasks to an ACMS system.
<i>HP ACMS for OpenVMS ADU Reference Manual</i>	Reference information about the ADU commands, phrases, and clauses.
<i>HP ACMS for OpenVMS Quick Reference</i>	List of ACMS syntax with brief descriptions.
<i>HP ACMS for OpenVMS Managing Applications</i>	Description of authorizing, running, and managing ACMS applications, and controlling the ACMS system.
<i>HP ACMS for OpenVMS Remote Systems Management Guide</i>	Description of the features of the Remote Manager for managing ACMS systems, how to use the features, and how to manage the Remote Manager.
Online help†	Online help about ACMS and its utilities.

†Available online only.

For additional information on the compatibility of other software products with this version of ACMS, refer to the *HP ACMS for OpenVMS Software Product Description* (SPD 82.40.xx).

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

<http://h71000.www7.hp.com/openvms>

Reader's Comments

HP welcomes your comments on this manual. Send us your comments to openvmsdoc@hp.com.

How To Order Additional Documentation

Use the following World Wide Web address for information on how to order additional documentation:

<http://www.hp.com/go/openvms/doc/>

Conventions

The following conventions are used in this manual:

Ctrl/ <i>x</i>	A sequence such as Ctrl/ <i>x</i> indicates that you must press and hold the key labeled Ctrl while you press another key or a pointing device button.
PF1 <i>x</i>	A sequence such as PF1 <i>x</i> indicates that you must first press and release the key labeled PF1 and then press and release 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 horizontal ellipsis in examples indicates one of the following possibilities: <ul style="list-style-type: none">• Additional optional arguments in a statement have been omitted.• The preceding item or items can be repeated one or more times.• Additional parameters, values, or other information can be entered.
.	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 radices—binary, octal, or hexadecimal—are explicitly indicated.

bold text	Bold text represents the introduction of a new term or the name of an argument, an attribute, or a reason. In the HTML version of this document, this text style may appear as italics.
<i>italic text</i>	Italic text indicates important information, complete titles of manuals, or variables. Variables include information that varies in system output (Internal error <i>number</i>), in command lines (<i>/PRODUCER=name</i>), and in command parameters in text (where <i>dd</i> 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. In command format descriptions, uppercase text is an optional keyword.
<u>UPPERCASE</u>	In command format descriptions, uppercase text that is underlined is a required. You must include it in the statement if the clause is used.
lowercase	In command format descriptions, a lowercase word indicates a required element.
<lowercase>	In command format descriptions, lowercase text in angle brackets indicates a required clause or phrase.
()	In command format descriptions, parentheses indicate that you must enclose the options in parentheses if you choose more than one.
[]	In command format descriptions, vertical bars within square brackets indicate that you can choose any combination of the enclosed options, but you can choose each option only once.
{ }	In command format descriptions, vertical bars within braces indicate that you must choose one of the options listed, but you can use each option only once.

References to Products

The ACMS documentation set often refers to products by abbreviated names. The following product abbreviations are used in this documentation set:

Abbreviation	Product
ACMS	HP ACMS for OpenVMS Alpha, and HP ACMS for OpenVMS Integrity servers
Ada	HP Ada for OpenVMS Alpha Systems, and HP Ada for OpenVMS Intergrity server Systems
BASIC	HP BASIC for OpenVMS
C	HP C for OpenVMS Alpha Systems, and HP C for OpenVMS Integrity server Systems
CDD	Oracle CDD/Administrator, and Oracle CDD/Repository
COBOL	HP COBOL for OpenVMS Alpha Systems, and HP COBOL for OpenVMS Integrity server Systems
DATATRIEVE	HP DATATRIEVE for OpenVMS Alpha, and HP DATATRIEVE for OpenVMS Integrity servers
DBMS	Oracle CODASYL DBMS
DECforms	HP DECforms

Abbreviation	Product
FORTTRAN	HP Fortran for OpenVMS Alpha Systems, and HP Fortran for OpenVMS Integrity server Systems
OpenVMS	The OpenVMS Alpha operating system, and the OpenVMS Integrity server operating system
Pascal	HP Pascal for OpenVMS Alpha, and HP Pascal for OpenVMS Integrity servers
Rdb	Oracle Rdb
SQL	The SQL interface to Oracle Rdb

ACMS Overview

The Application Control and Management System (ACMS) transaction processing system is a TP monitor that runs on the HP OpenVMS operating system. It is intended for businesses that require high performance, security, data integrity, and both centralized and distributed processing. It is used in retail, banking, financial services, telecommunications, health, customer service, manufacturing, and insurance industries.

With ACMS, businesses can reduce development time for their applications, streamline application maintenance, and lower the cost per transaction. Applications can be configured for distribution over many systems, providing a flexible response to changes in business conditions. The open-ended OpenVMS architecture and networking allow for growth without disruption of services.

ACMS is a TP monitor that provides development, run-time, and application management system for TP applications. It is designed for a modular, flexible development style and efficient use of system resources in large on-line applications.

ACMS combines a structured, high-level application definition language and utilities to build, manage, and control complex applications. The modular nature of ACMS applications makes them more efficient to develop and run, and easier to maintain than traditional applications programs. ACMS applications can be modified by changing individual components, rather than rewriting the entire application.

ACMS is also part of an integrated application development environment that includes presentation services, transaction and database management, programming languages, and tools.

Installation Guidelines

This chapter describes the installation guidelines for ACMS Version 5.1B.

2.1 General Installation Information

This kit requires that ACMS be shut down either before or automatically during the installation. (For installation in an OpenVMS Cluster, HP recommends that ACMS be stopped on all cluster nodes prior to installation.)

Install this kit with the VMSINSTAL utility by logging in to the SYSTEM account and typing a command in the following format at the DCL prompt, specifying the name of the kit (*kit_name*) and the location of the kit saveset (*saveset_location*):

```
$ @SYS$UPDATE:VMSINSTAL kit_name saveset_location
```

Table 2–1 list the ACMS Version 5.1B kit names:

Table 2–1 Alpha Kits

Kit	Name
Development	ACMSDEVA_MBB051
Run-time	ACMSRTOA_MBB051
Remote-access	ACMSREMA_MBB051

Table 2–2 Integrity server Kits

Kit	Name
Development	ACMSDEVI_MBB051
Run-time	ACMSRTOI_MBB051
Remote-access	ACMSREMI_MBB051

After the installation completes, run SYS\$STARTUP:ACMSTART.COM on all nodes prior to restarting ACMS.

This installation does not require a reboot; however, you will need to run the LOGIN.COM procedure after installation to refresh the symbol and logical definitions for this account.

2.2 Prerequisites for Installation

Before installing HP ACMS Version 5.1B, it is mandatory to install OpenVMS Alpha Version 8.2 or later on a supported hardware configuration.

You can install HP ACMS Version 5.1B on Alpha systems. The following subheadings provide prerequisites and a brief procedure for the HP ACMS installation.

Installation Guidelines

2.2 Prerequisites for Installation

2.2.1 Installing on OpenVMS Alpha

Before installing HP ACMS Version 5.1B kit:

- Ensure that OpenVMS Alpha Version 8.2 or later is running on your supported hardware configuration.
- Ensure that a valid ACMS License is loaded onto the system. The license should be one of the following:
 - ACMS
 - ACMS-REM
 - ACMS-RT

2.2.2 Installing on OpenVMS Integrity server

Before installing HP ACMS Version 5.1B kit:

- Ensure that OpenVMS Integrity servers V8.2-1 or later is running on supported hardware configurations.
- Ensure that a valid ACMS License is loaded onto the system. The license should be one of the following:
 - ACMS
 - ACMS-REM
 - ACMS-RT

2.3 ACMSTART.COM Installs DECC\$SHR and ACMS\$TRACE_SHR.EXE

ACMSHR.EXE now links with the shared image 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 the DECC\$SHR image is not installed on the system, you get the following error when starting ACMS:

```
$ ACMS/START SYSTEM
%DCL-W-ACTIMAGE, error activating image DECC$SHR
-CLI-E-IMGNAME, image file
  $100$DUA0:[SYS0.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 SYSTEM
%DCL-W-ACTIMAGE, error activating image ACMS$TRACE_SHR.EXE
-CLI-E-IMGNAME, image file
  $100$DUA0:[SYS0.SYSCOMMON.][SYSLIB]ACMS$TRACE_SHR.EXE
-SYSTEM-F-PRIVINSTALL, shareable images must be installed
to run privileged image
```

If the ACMS Remote Manager was configured (using SYS\$STARTUP:ACMS_POST_INSTALL.COM), ACMSTART.COM will execute the procedure ACMS\$MGMT_SETUP.COM. This procedure prepares the OpenVMS environment to run the ACMS Remote Manager. ACMS\$MGMT_SETUP.COM is executed just before ACMS_SETUP.COM.

2.4 ACMS Version Identification File (ACMS_ECO_LEVEL.DAT)**2.4 ACMS Version Identification File (ACMS_ECO_LEVEL.DAT)**

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

The file 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, which have an ECO level of 0. When reporting any problems with ACMS, refer to this file to determine the current ACMS version that is being used. 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.

2.5 Reinstall ACMS After OpenVMS Upgrades

When upgrading major versions of the OpenVMS Alpha operating system, it is necessary to reinstall ACMS. This applies when upgrading the OpenVMS Alpha operating system from Version 6.x to 7.x.

2.6 Programming Examples on ACMS Kit

The Remote Manager programming examples shipped with the ACMS kit require that the file SYS\$COMMON:[SYSHLP.EXAMPLES.ACMSMGMT]ACMSMGMT.OLB be copied to SYS\$LIBRARY.

To compile and link the Remote Manager programming examples, execute the following command procedure:

```
$ @SYS$COMMON:[SYSHLP.EXAMPLES.ACMSMGMT]ACMS$MGMT_EXAMPLES_BUILD.COM
```

In the file SYS\$COMMON:[SYSHLP.EXAMPLES.ACMSMGMT]ACMS\$MGMT_EXAMPLES.C, remove the following sentence from the section called How to build this program:

```
In addition, you must have access to object module
acms$mgmt_get_creds.obj, which is installed in the ACMS$MGMT_EXAMPLES
directory.
```

In the file SYS\$COMMON:[SYSHLP.EXAMPLES.ACMSMGMT]ACMS\$MGMT_EXAMPLES.C, item 4, change the following LINK command comment:

```
**** $ LINK ACMS$MGMT_EXAMPLES,ACMS$MGMT_GET_CREDTS,ACMSMGMT_RPC_CLNT,
          ACMSMGMT_RPC_XDR, SYS$INPUT/OPT
**** SYS$SHARE:UCX$RPCXDR_SHR/SHARE
**** SYS$SHARE:DECC$SHR/SHARE
```

to:

```
**** $ LINK ACMS$MGMT_EXAMPLES,ACMSMGMT_RPC_CLNT,ACMSMGMT_RPC_XDR, SYS$INPUT/OPT
**** SYS$LIBRARY:ACMSMGMT.OLB/LIB
**** SYS$SHARE:UCX$RPCXDR_SHR/SHARE
**** SYS$SHARE:DECC$SHR/SHARE
```

Installation Guidelines

2.7 Installing Oracle Trace after ACMS Installation

2.7 Installing Oracle Trace after ACMS Installation

- On OpenVMS Integrity servers, during installation, the check for Oracle Trace license has been removed.
- When Oracle Trace is installed after ACMS installation, execute the following command for Oracle Trace administration database:

```
$ COLLECT INSERT DEFINITION/LIBRARY/REPLACE SYS$COMMON:[SYSLIB]ACMS_FAC_DEF.EPC$DEF
```

Enhancements in ACMS

3.1 Enhancements in ACMS Version 5.1B

The following enhancement is added to ACMS Version 5.1B release:

3.1.1 EXIT Handler Implementation

In earlier versions of ACMS, when the server process was killed abruptly using STOP/ID, the termination procedure defined for the server process failed to get executed. In this release, an EXIT handler is established for the server process. This results in execution of the termination procedure even when the server process is killed abruptly. The prerequisites for this feature are:

- The ACMS application must contain both the initialization and termination routines.
- The SYSGEN parameter - DELPRC_EXIT must be set to 7 as the current value.

3.2 Enhancements in ACMS Version 5.1 ECO1

The following enhancement is added to ACMS Version 5.1 ECO1 release:

3.2.1 Support for more Command Processor (CP) Processes on Alpha

HP ACMS Version 5.1 ECO1 is enhanced to support more Command Processor (CP) processes on OpenVMS Alpha systems. In the earlier version of ACMS, this feature was supported only on OpenVMS Integrity server systems.

For more information on this enhancement, refer to Section 3.2.1.

3.3 Enhancements in ACMS Version 5.1

The following enhancement was added to ACMS Version 5.1 release:

3.3.1 Support for more Command Processor (CP) Processes on Integrity servers

In the earlier versions of ACMS, the user could create only 127 CP processes per ACMS submitter node.

On Integrity server systems, ACMS Version 5.1 is enhanced to support up to 500 CP processors per ACMS submitter node. This enables more number of ACMS terminals to be supported on the submitter node and reduces the submitter nodes used.

The actual number of CPs supported depends on the system hardware such as, CPU or Memory or pagefile and the values of the relevant system tunable parameters.

Enhancements in ACMS

3.3 Enhancements in ACMS Version 5.1

3.3.2 Support for 5 digit TNA device to log on to the ACMS system

In the earlier versions of ACMS, the TNA device with a maximum of 4 digits (that is, 9999) could only log on to the ACMS system.

ACMS Version 5.1 is enhanced to log on to the ACMS system when the TNA device number exceeds the present limit of 9999 to 99999.

To enable 5 digit TNA device to log on to ACMS system, install the following TCP/IP patch on the system:

DEC-AXPVMS-TCPIP-V0506-9EC01-1.PCSI\$COMPRESSED- For Alpha systems

HP-I64VMS-TCPIP-V0506-9EC01-1.PCSI\$COMPRESSED- For Integrity server systems

Problems Fixed

This chapter describes the software problems that have been corrected in ACMS Versions 5.1B, 5.1ECO1, 5.1, 5.0A and 5.0.

4.1 Problems Fixed in Version 5.1B

- On OpenVMS Integrity servers, when the disk containing ACMSAUDIT.LOG is full, the write operation fails and the ACMS Audit trail logger attempts to write the call chain information in the SWL log.

During the process of writing, memory allocated to save the context information is not released. This causes memory leak in the ACMSEXC process.

This problem was reported as WFM: 3602936344-363.

- On OpenVMS Alpha systems, while executing the SYS\$STARTUP:ACMSTART.COM command procedure with P1 as RESIDENT, the following error message is displayed:

```
%INSTALL-I-NONRES, image installed ignoring '/RESIDENT'
-DISK$OVMS83:<SYS0.SYSCOMMON.SYSLIB>ACMUTILSHR.EXE
-INSTALL-E-MISSLNQUAL, image was not linked with /SECTION_BINDING=CODE
```

- ACMS task using the system work space fails during execution.
- The ACMS CP processes generated alignment faults and most of the alignment faults are fixed in this release.
- On OpenVMS Integrity servers, when a task starts a transaction with the ACMS server, the server finishes with the following error message:

```
%RDO-F-ONLONETRN, only one transaction allowed at a time
```

This error occurs only when the task definition contains "Processing With Rdb Recovery "Start_Transaction Read_Only Nowait"".

This problem was reported as WFM: 1212560060-121.

- On OpenVMS Integrity servers, when the task definition contains "Processing With Rdb Recovery "Start_Transaction Read_Only Nowait" linking ACMS server object fails to create the EXE file and the following error message is displayed:

```
%ILINK-E-INVORINI, incompatible multiple initializations for overlaid section
```

This problem was reported as WFM: 1600112731-165.

- On OpenVMS Alpha systems, while debugging the server linked with the /DEBUG and /TRACEBACK qualifiers, ACMS fails with the following error message:

Problems Fixed

4.1 Problems Fixed in Version 5.1B

```
$ acms/debug/server/pid=28A0B65C
%ACMSOPR-E-DBGSERERR, Error during DEBUG/SERVER
-ACMSOPS-W-SRVNAK, Server won't allow debug at this time
-ACMS-E-NOTRCBCK, Cannot debug server linked /NOTRACEBACK
%ACMSOPR-E-ERROR, Some operations may not have been performed
```

This problem was reported as WFM: 3601649587-362.

- On OpenVMS Alpha systems, while starting the ACMS system and terminal, the ACMS CP processes get into tight CPU loop.

This problem was reported as WFM: 3601157430-364.

- On OpenVMS Integrity servers, the ADU BUILD GROUP command when executed with the /OBJECT qualifier may fail with the following access violation error message:

```
adu build group avertz_cdd_group:vr_task_group
avertz_tdb:vr_task_group.tdb/userlibrary=VRMSGLIB.olb
Fails with:
%SYSTEM-F-ACCVIO, access violation, reason mask=00,
virtual address=000000000000 0000, PC=0000000000BD5DC1, PS=0000001B
```

This problem was reported as WFM: 2215417086-222.

- The call to acms\$dequeue_task fails with the %rms-f-rab error.

This problem was reported as WFM: 3601084230-365.

- ACMS version number is not updated to V5.1A-0 in the Oracle Trace Facility Definition file.

This problem was reported as WFM: 1600583142-162.

4.2 Problems Fixed in Version 5.1 ECO1

No problems were fixed in HP ACMS Version 5.1 ECO1.

4.3 Problems Fixed in Version 5.1

- On OpenVMS Integrity servers Version 8.3, when ACMS/DEBUG/SERVER/PID=<server process pid> command is executed and Ctrl+G is entered, the following error message is displayed:

```
%ACMSOPR-E-DBGSERERR, Error during DEBUG/SERVER
-ACMSOPS-W-INTERR, Internal logic error
%ACMSOPR-E-ERROR, Some operations may not have been performed
```

Also, When the command is executed without the /DEBUG qualifier, applications work properly.

This problem was reported in WFM 1215686942-121.

- On OpenVMS Integrity servers Version 8.3, any ACMS transaction takes atleast 200ms when the application is linked with the thread library. When the time stamps are collected from a C program before and after the call. The call duration is displayed as 0.20 seconds, even though the Audit Trail Logger (ATR) records the duration as 0.03 to 0.06 seconds. The Rdb also reports the transactions as 0.036 seconds.
- The ACMS EPC\$FACILITY facility definition is not updated for the latest ACMS version. In ACMS Version 5.0A, the Version indicator information in the ACMS/Oracle trace file is not updated with the latest version and is displayed as 'V4.5-0'.

This problem was reported in WFM 3215548310-321.

4.4 Problems Fixed in Version 5.0A

- ACCVIO problem occurred in ACMS MGMT server while writing snapshot records into the snapshot file. The MGMT server tries to write records into the snapshot file without creating it or the snapshot storage location is NULL. This problem is fixed by ensuring that the server will not write records if the snapshot file creation failed or the snapshot storage location is NULL.

This problem was reported in WFM 3214147409-321.

- On OpenVMS Integrity servers Version 8.2-1, a QTI queue can be stopped and restarted once. If the QTI queue is stopped for the second time, it remains in the "STOPPING" state, but the queue is not actually "STOPPED".

When a queue is started, a thread is created to process the elements in the Queue definition file. At the time of queue thread initialization a queue status variable (local variable) value is verified to proceed further to create the thread. This problem is solved by initializing this local variable to zero.

This problem was reported in WFM 3214845535-321.

4.5 Problems Fixed in Version 5.0

- Audit Trail log (ATR) utility displays 5-octet task-id. For example,

```
ATR> list/id=0003006E-00000005-9398B63D-00A41CD8-00000001
*****
Type   : TASK           Time    : 5-APR-2005 09:41:34.71
Appl   : LDT_APPL_A
Task   : DT_ON_RP_SQL
User   : LTUSER1079
ID     : ZIMA2::0003006E-00000005-9398B63D-00A41CD8-00000001
Sub    : ZIMA2::0003006E-00000000-9398B63D-00A41CD8
Text   : Task end
Task completion status: data set hang-up
*****
```

- Changed ACMSPARAM.com to create ACMS\$TSC account with OPER privilege.

Now, ACMS/ENTER will not return an invalid status when it tries to display the "Maximum number of ACMS logins exceeded".

This problem was reported in WFM 3210737984-323 and has been fixed in this release.

- Minimum Disk Space Needed for Installation Calculated Correctly

The ACMS installation procedure now correctly calculates the minimum disk space required to install the ACMS Development Kit.

- SWLPROC No Longer Fails When Disk Space is Unavailable

The Software Logger process (SWLPROC) has been enhanced so that it no longer fails when adequate disk space is not available. When disk space becomes low, SWLPROC now does one of the following:

- Stops writing error records until disk space becomes available
- Redefines the logical ACMS\$SWL_LOG to point to another device and issues the MCR SWLUP RENEW command

Problems Fixed

4.5 Problems Fixed in Version 5.0

- Starting ACMS Applications With a High MAXPROCESSCNT Value No Longer Result in a Fatal Error

The startup of an ACMS application with a high MAXPROCESSCNT parameter value no longer results in a %SYSTEM-F-BADPARAM error.

- ADU LINK/STDL Command Documented

Information about the LINK/STDL command now appears in ACMS ADU online help.

- Spaces in SET PARAMETER Commands No Longer Trigger an Access Violation

Including spaces to separate parameter values in ACMSCFG and ACMSMGR SET PARAMETER commands no longer result in an access violation. For example, in the following command the spaces surrounding the equal sign (=) now result a series of error messages:

```
NODE> ACMSCFG SET PARAM/RPC_STACKSIZE = 10
%ACMSMGMT-E-BAD_VALUE, Invalid qualifier, cannot interpret value
rpc_stacksize
%ACMSMGMT-E-BAD_VALUE, Invalid qualifier, cannot interpret value =
%ACMSMGMT-E-FAIL, Operation failed
```

- New Default QTI State for ACMSMGR START SYSTEM

The default QTI running state for the ACMSMGR START SYSTEM command has been changed to /NOQTI so that it is now consistent with the ACMS /START SYSTEM command.

- ACMSMGR SHOW ERROR and SHOW LOG Accept OpenVMS Date_Time Keywords

In addition to full and partial dates and times, the ACMSMGR SHOW ERROR and SHOW LOG commands now accept the traditional OpenVMS date_time keywords of TODAY, YESTERDAY, and TOMORROW as valid values to the /BEFORE and /SINCE qualifiers.

For example, the following command is now valid:

```
$ ACMSMGR SHOW ERROR /SINCE="1-JUN" /BEFORE=TODAY
```

5.1 Problems that Exist from ACMS Version 5.0

- **ACMS ADU Build Procedure Fails to Create the Server Object**
On OpenVMS Integrity servers, ACMS ADU build procedure fails to create the server object. This problem occurs only when any concealed logical defined in the process table is used to specify the output server object module. HP recommends you to define the logical for server object in the SYSTEM/JOB/GROUP table.
- **Delay in ACMS Remote Manager Startup**
ACMS Remote Manager takes a little more time than its Alpha Counterpart to get activated. This is because of the delay between the Remote Manager process startup and the time when it gets attached to the ACMS global sections. Therefore Customers have to wait for some time before they can start using the ACMS Remote Manager facilities.
- **BUILD GROUP/DEBUG does not work on Integrity servers**
The preceding command BUILD GROUP/DEBUG does not work on Integrity servers.

This chapter lists the restrictions that apply to ACMS.

6.1 Restrictions in ACMS Version 5.1B

The maximum number of characters allowed for TNA device name is 8 characters (TNA9999:) and the bit "2" of the SYSGEN parameter, DEVICE_NAMING must be set to 1. This wraps the cloned device unit numbers after 9999. For more information about the bit setting, see SYSGEN help.

6.2 Restrictions in ACMS Version 5.1 ECO1

There are no new restrictions in ACMS Version 5.1 ECO1 release.

6.3 Restrictions in ACMS Version 5.1

There are no new restrictions in ACMS Version 5.1 release.

6.4 Restrictions in ACMS Version 5.0A

There are no new restrictions in ACMS Version 5.0A release.

6.5 Restrictions in ACMS Version 5.0

There are no new restrictions in ACMS Version 5.0 release.

6.6 Restrictions in ACMS Version 4.5A

There are no new restrictions in ACMS Version 4.5A release.

6.7 Restrictions Continued from ACMS Version 4.5

- Length Restriction for TCP/IP Hosts
If the translation of the logical name UCX\$INET_HOST is greater than 31 characters, the results are unpredictable. The Remote Manager allocates only 31 bytes for the translation; longer TCP/IP host names will potentially corrupt Remote Manager local memory and lead to unpredictable results.
In order for ACMS to parse and display node names consistently, it is recommended that ACMS TCP/IP and DECnet host names be identical, following the DECnet Phase IV naming conventions. If the TCP/IP host name for a potential ACMS client or server system differs from this convention, you should define a six-character alias for that system in the hosts database.
- Remote Manager and TP Connector Software May Conflict Over TCP/IP Port 1023

Restrictions

6.7 Restrictions Continued from ACMS Version 4.5

When running the ACMS Remote Manager on the same node as the TP Desktop Connector (ACMSDI\$SERVER) or the TP Web Connector (ACMSDA\$GATEWAY), note the TCP/IP port being used by each server. Only one server can use a particular port at any given time.

By default, each server attempts to connect to port 1023. To prevent conflicts, the TP Desktop Connector and TP Web Connector have parameter files that allow you to manually specify a different port. The Remote Manager uses PORTMAPPER to select a free port.

Depending upon the order in which the servers are started, and whether the parameter files are used, conflicts may occur. For example, if the Remote Manager is started before the TP Desktop Connector, and an alternate port was not specified in the parameter file, the Remote Manager and TP Desktop Connector will both attempt to use port 1023.

To prevent this from occurring, HP recommends that you do the following:

- Create or modify the parameter file (SYS\$STARTUP:ACMSDA\$STARTUP.PM) for the TP Web Connector so that it includes the following entry:

```
"TCPIP_PORT = 1022"
```

This prevents conflict between the TP Desktop Connector and TP Web Connector software.

- Always start the Remote Manager last. PORTMAPPER will locate the next free port automatically.
- New ACMS Configuration File Required
You can create an updated version of this file automatically by running the ACMS postinstallation procedure (ACMS_POST_INSTALL.COM).
- PATROL Knowledge Modules Not Yet Available
Updated PATROL Knowledge Modules (KMs) are not available.
- Certain ACMS Errors Not Sent to the Remote Manager Error Log
Note that the following ACMS run-time errors are sent to SWL but not to ACMS Remote Manager error log:
 - Errors signaled to a last chance handler outside of ACMS that does not have access to the Remote Manager process (such as those errors returned from performing a STOP/ID on either a CP or EXC process).
 - Errors that occur before the Remote Manager process has been initialized (such as those errors returned from starting a TSC process with the Forms Manager defined as NULL).
- Remote Manager May Display Incorrect Run-time Values for EXC Free and Total Server Counts
The display of EXC run-time values for Free Servers and Total Servers Running may contain values that are greater than the actual number of servers. This could happen if a DCL STOP/ID command or ACMSMGR REPLACE SERVER command have been issued for a server. These commands do not decrement the server counts when a server is deleted.
To verify the total servers that are running, use the ACMSMGR SHOW SERVER/RUNTIME/FULL/APPL=command. the total number of servers running in the application can be determined by adding each of the values in the Servers: Current column.

6.7 Restrictions Continued from ACMS Version 4.5

You can determine the number of free servers in each application by subtracting the value shown in the Active Servers current column from the total number of servers running.

- Running Multiple Data Snapshots from Remote Manager Can Exhaust Pagefile Quota

The Remote Manager has a default pagefile quota of 100,000 pages. If a number of data snapshot collections are started, the resulting stacksize may exceed this value and cause the Remote Manager process to fail.

The pagefile quota is specified in the file SYS\$STARTUP:ACMS\$MGMT_STARTUP.COM. If you initiate a number of simultaneous data snapshot collections, monitor the use of pagefile resources used by the Remote Manager process. If necessary, adjust the pagefile quota in the ACMS\$MGMT_STARTUP file; then stop and restart the Remote Manager system to apply the changes.

- Correcting an Invalid Data Snapshot Storage Location

To correct an invalid storage location for a data snapshot file, you must reset the storage state (disable/enable) after entering another location. This reinitializes the snapshot thread and forces it to write data to the new location.

- Using /ACTIVE and /STORED Qualifiers with ACMSMGR SET commands

With the prior version of ACMSMGR, you could specify both the /ACTIVE and /STORED qualifiers with same ACMSMGR SET command; even for settings where either the active or stored value could not be updated.

You can no longer specify both qualifiers with the same SET command. Attempts to do so will result in the following error:

```
$ ACMSMGR SET TSC /MAX_LOGINS=50 /ACTIVE /STORED
ACMS Remote Management -- Command line utility
%ACMSMGMT-E-ERRBOTHFLAGS, Both current and active flags were set. They
are mutually exclusive. No updates performed
%ACMSMGMT-E-FAIL, Operation failed
```

To set the active and stored values, you must now use separate SET commands. If you try to modify an active setting and only the stored value can be updated, the following warning messages are displayed:

```
$ ACMSMGR SET TSC /CP_SLOTS=5 /ACTIVE
ACMS Remote Management -- Command line utility
Call to modify TSC parameters on server JANEWY failed
%ACMSMGMT-W-ACTUPDINV, /active was specified for cp_slots, but this
value is not dynamic. No update was performed
%ACMSMGMT-W-WARN, Operation completed with warning, Not all operations
completed successfully
```

- Use ACMSSNAP SHOW Commands to Display ERROR Class Data

To view stored ERROR class information, use the full entity display without a class qualifier. For example, use the following command to display ERROR class information for ACC:

```
ACMSSNAP> SHOW ACC/FULL
```

If both the collection state and storage state were enabled for the relevant collection, then the ERROR class data will be shown at the end of the displayed output.

Restrictions

6.7 Restrictions Continued from ACMS Version 4.5

- Using the ACMSSNAP SHOW/AT Command

The ACMSSNAP SHOW/AT command does not always display the exact record specified. Sometimes, the record immediately before or immediately after the requested record is displayed.

For instance, in the following example, five ACC records are read from the data snapshot file, and the same SHOW/AT command is specified three times. The first attempt displays the record previous to the requested record. The second attempt displays the exact record requested. The third attempt again displays the previous record.

```
ACMSSNAP>SHOW ACC/ID/NEXT=5
ACMS Remote Management -- Snapshot utility
  ID
Node  Class  PID  Process Name    Start Time          User
-----
sparks enabled 5C67 ACMS01ACC001000 7-JUN-20010 9:30:56.71 SYSTEM V4.4-0[8-JUN-2001 11:11:11.99]
sparks enabled 5C67 ACMS01ACC001000 7-JUN-20010 9:30:56.71 SYSTEM V4.4-0[8-JUN-2001 11:11:22.24]
sparks enabled 5C67 ACMS01ACC001000 7-JUN-20010 9:30:56.71 SYSTEM V4.4-0[8-JUN-2001 11:11:32.24]
sparks enabled 5C67 ACMS01ACC001000 7-JUN-20010 9:30:56.71 SYSTEM V4.4-0[8-JUN-2001 11:11:42.24]
sparks enabled 5C67 ACMS01ACC001000 7-JUN-20010 9:30:56.71 SYSTEM V4.4-0[8-JUN-2001 11:11:52.24]

ACMSSNAP>SHOW ACC/AT="8-JUN-2001 11:11:22.24"/ID
ACMS Remote Management -- Snapshot utility
  ID
Node  Class  PID  Process Name    Start Time          User
-----
sparks enabled 5C67 ACMS01ACC001000 7-JUN-2001 09:30:56.71 SYSTEM V4.4-0[8-JUN-2001 11:11:11.99]

ACMSSNAP>SHOW ACC/AT="8-JUN-2001 11:11:22.24"/ID
ACMS Remote Management -- Snapshot utility
  ID
Node  Class  PID  Process Name    Start Time          User
-----
sparks enabled 5C67 ACMS01ACC001000 7-JUN-2001 09:30:56.71 SYSTEM V4.4-0[8-JUN-2001 11:11:22.24]

ACMSSNAP>SHOW ACC/AT="8-JUN-2001 11:11:22.24"/ID
ACMS Remote Management -- Snapshot utility
  ID
Node  Class  PID  Process Name    Start Time          User
-----
sparks enabled 5C67 ACMS01ACC001000 7-JUN-2001 09:30:56.71 SYSTEM V4.4-0[8-JUN-2001 11:11:11.99]
```

To prevent this "toggle" effect from occurring, only specify the /AT qualifier once while navigating through a set of records. If you are not at the record which you want to view, then use either the /NEXT or /PREV qualifier to move through the record sequence. Once you locate the record you want to view, issue the appropriate SHOW command without any navigational qualifiers (/AT, /NEXT, and /PREV) to display the details of that record.

6.8 Restrictions Continued from ACMS Version 4.3

The following restrictions have been in effect since ACMS Version 4.3.

- CDD Version 6.x Support Restricted

Oracle CDD/Repository Version 6.1 is not supported by ACMS Version 4.x. An access violation occurs whenever ACMS attempts to access the dictionary.

Oracle CDD/Repository Version 6.1A is supported by ACMS Version 4.x.

- SNMP GETNEXT Calls Return Unpredictable Results

SNMP getnext calls are not supported in this release of the ACMS Remote Manager. SNMP getnext calls issued to the Remote Manager may appear to complete successfully; however, the data should not be considered to be accurate.

- Remote Manager is Unusable Following TCP/IP or UCX Shutdown

The ACMS Remote Manager depends on the underlying network software in order to communicate with external processes. If the IP network is stopped, the existing network connections between the ACMS Remote Manager and the IP network become orphaned and cannot be reconnected when the network is restarted. This prevents further communications between external processes and the ACMS Remote Manager.

The workaround is to ensure that the Remote Manager is stopped prior to stopping the IP network, and to restart it only after the IP network has been restarted. If the Remote Manager is left running when the network is stopped, it is acceptable to stop it using the DCL command STOP/ID.

- Error Message When Stopping Remote Manager

When the Remote Manager process is stopped, a detached-process termination accounting record is written for the ACMS\$MGMT_SVR process. The final status recorded will be %x00FE9F49, which is translated in the SYS\$MESSAGE:ACMSMSG.EXE file as:

```
%ACMSMGMT-S-SUCCESS, Operation completed.
```

This status indicates a successful shutdown of the ACMS Remote Manager.

- Remote Manager Reports Error Message if it Can't Get Collection State

One of the following error messages may appear in the Remote Manager log:

```
msg_proc: e : Failure getting current collection states.
Ignoring process ACMS01ACC001000
```

This message can be safely ignored. At the time this message is generated, the Remote Manager is attempting to synchronize collection states with the ACC. Because the ACC loads the Collection table, synchronization is implicit.

```
procmon: e : Failure obtaining current collection states.
Bypassing <entity>
```

In this error message, <entity> is an ACMS entity type.

You can disregard this message. At the time this message is generated, the Remote Manager is attempting to synchronize collection states with the process, but the process has either not fully initialized or is not started. An example of this condition is when the ACMS run-time system is started without the Queued Task Initiator (QTI). If the process is initializing, synchronization will occur when the process finishes initializing. If the process is not started, synchronization is not necessary.

Restrictions

6.8 Restrictions Continued from ACMS Version 4.3

- Remote Manager May Report ACMSTRC\$_MONPROCEXST Error When Trying to Start Trace Monitor

In some situations, when the Remote Manager is trying to start the Trace monitor, it reports the following in the Remote Manager log:

```
rpc: e : %ACMSTRC-W-MONPROCEXST, ACMS$TRACE_MON process seems to  
already exist since ACMS$TRACE_MBX is defined
```

This error message indicates that the Remote Manager attempted to create a Trace monitor process and detected that the logical name for the Trace monitor mailbox ACMS\$TRACE_MBX was defined in the system logical name table. The process is assumed to exist if this logical name is defined. If there is a working version of the Trace monitor process running (image name ACMS\$TRACE_MONITOR, process name ACMS\$TRACE_MON), and the logical name ACMS\$TRACE_MBX is defined as a mailbox device, then no action is required.

If the monitor process is malfunctioning, then you can try to stop it with the DCL command STOP/ID. If this fails, you can take the following steps:

1. Deassign the system logical name ACMS\$TRACE_MBX
2. Change the process name to something other than ACMS\$TRACE_MON
3. Set the process priority to 1.

The Remote Manager can then create a new process. If these attempts to disable the existing Trace monitor process fail, then you should report the problem to your HP support representative.

- Remote Manager Takes a Few Seconds to Start

It takes a few seconds for the Remote Manager to become fully initialized during startup. This usually occurs on machines that are heavily loaded, on networks that are busy, or in command procedures that execute ACMSMGR commands immediately after starting the Remote Manager. During the Remote Manager initialization period, ACMSMGR commands are likely to fail with the following error messages:

```
%ACMSMGMT-W-NOCLNT_ATTACH, Cannot create client for node SPARKS  
%ACMSMGMT-E-NOCLIENTS, No clients created, cannot continue  
%ACMSMGMT-E-FAIL, Operation failed
```

If this occurs, resubmit the command after pausing slightly. You can use the following series of commands in a command procedure to avoid this problem:

```
$ @SYSS$STARTUP:ACMS$MGMT_STARTUP  
$ WAIT 00:00:05  
$ ACMSMGR SHOW ACC/ID
```

- ACMSMGR SHOW LOG /SINCE Qualifier Default

The /SINCE qualifier of the ACMSMGR SHOW LOG command defaults to the current date only if the qualifier is specified as /SINCE= (that is, if there is an equal sign but no value string).

- Remote Manager EVENT_SEVERITY Traps Do Not Include Text Messages

All Remote Manager traps report the date and time, severity, entity type, process name, trap parameter and current value. Remote Manager traps do not report text messages.

6.8 Restrictions Continued from ACMS Version 4.3

For event_severity traps, the traps include the severity of the event but do not indicate the actual text message. The traps receiver will know that a warning, an error, or a fatal event occurred, but it will not know what actually happened.

To determine which event caused the traps, enter the ACMSMGR SHOW LOG command and specify the traps time in the /SINCE qualifier.

For example, assume the following trap was received by a trap listener:

```
Node           SPARKS
Date/Time      5-OCT-1999 14:50:05.13
Severity       Error
Entity Type    MGR
Process Name   ACMS$MGMT_SVR
Trap Parameter event_s
Current Value  2
```

This trap indicates that the Remote Manager on node SPARKS detected a warning level condition (value 2) at time 14:50:05.13. To determine the event that raised this condition, use the ACMSMGR SHOW LOG command as follows:

```
$ ACMSMGR SHOW LOG/NODE=SPARKS/SINCE="5-OCT-1999 14:50"/SAVE=WARN
```

Note that the time of the event may slightly precede the trap time, since the trap time is the time the trap was generated, not the time of the event.

6.9 Restrictions Continued from ACMS Version 4.1

The following restrictions have been in effect since ACMS Version 4.1.

- Form Name Cannot be a Logical Name When Using Multiple Submitter Platforms

When the ACMS\$MULTIPLE_SUBMITTER_PLATFORMS is defined as "T", "Y" or 1, the ACMS EXC process attempts to open the form files specified in the task group definition by adding _VAX or _AXP to the file name. If the task-group definition uses a logical name for the form name, the EXC will not be able to locate the forms because no logical name translation is performed.

Form names when used in a multiplatform environment cannot be logical names.

- CDD Restriction Initializing Fields with Strings Shorter Than Field Size

Do not define a CDD field initialization string that is shorter than the field size. This may cause a memory access violation when using the Application Definition Utility (ADU) to build a group.

For example, the following CDO file sometimes causes ADU to generate a memory access violation when the ADU REPLACE GROUP statement is issued:

Restrictions

6.9 Restrictions Continued from ACMS Version 4.1

```
define field wksp_rep:r_1_field_1
  datatype text size 30000
  initial_value is "".
define record wksp_rep:r_1.
  wksp_rep:r_1_field_1.
end record.
define field wksp_rep:r_2_field_1
  datatype text size 30000
  initial_value is "".
define record wksp_rep:r_2.
  wksp_rep:r_2_field_1.
end record.
```

The workaround for this example is to remove the `initial_value` clauses.

- Lowercase Characters Corrupted

If the terminal or terminal emulator is set to VT100 mode and both TDMS and DECforms are present on the same system, lowercase characters in DECforms menus are corrupted when an application is entered by bypassing the ACMS menus. As a workaround, issue a `SET TERMINAL /DEC_CRT=2`. This restriction occurs in ACMS Version 3.3 and later.

- On OpenVMS Alpha, Agent Hangs on Second Task Startup in Task Debugger

When an agent attempts to start a task in the ACMS Task Debugger while the Task Debugger is already executing a task, the agent should abort with the following error message:

```
%ACMS-E-EXCMAXDBGTSK, Only a single task may be debugged at
one time
```

As of ACMS Version 4.0 on OpenVMS Alpha, the agent hangs and does not return the error message. This is due to a problem in OpenVMS Alpha Version 6.x with certain `$GETJPIW` calls.

- QTI's PIOPAGE Requirements for RMS Journaling on OpenVMS Alpha

On OpenVMS Alpha, most recovery unit-journaled `$PUT`, `$UPDATE`, or `$DELETE` operations require at least 8.2 pagelets (512-byte pages) of PIOPAGES for the duration of these operations. In addition, a typical call to `SYS$END_TRANS` or `SYS$ABORT_TRANS` to end a recovery unit may require approximately 16.5 pagelets of PIOPAGES for the duration of these operations. These figures are approximate and may vary depending on the characteristics of your application.

While the need for additional PIOPAGES is temporary over the duration of the operation, RU applications that make extensive use of asynchronous RMS operations may have several operations launched at the same time, thus making heavier demands on their PIOPAGES. This is true in the multithreaded QTI process. The calculation of PIOPAGES requirements should be made by estimating the maximum number of threads that will be used by the QTI and multiplying that number by 16.5.

- Using the Terminal User Command `SELECT`

If a user is at the ACMS command menu and issues a `SELECT` command, the ACMS Command Process (CP) saves the selection and does not submit the task until the user issues a `CONTINUE` command. To use the `SELECT` command, you can do either of the following:

- Use the `SELECT` command from a menu other than the ACMS command menu.

6.9 Restrictions Continued from ACMS Version 4.1

- Use the SELECT command from the ACMS command menu and then issue the CONTINUE command.
- Problem Phoning from DCL Servers

You cannot use the OpenVMS Phone utility (PHONE) from a DCL server when using ACMS because a user who enters ACMS using the ACMS/ENTER/NORETURN command or through a controlled terminal does not have an OpenVMS process associated with the user.

The Phone utility was designed for communication between interactive OpenVMS processes. DCL server processes are not true interactive OpenVMS processes. When the Phone utility tries to dial a user or answer a call, it checks the system for both an interactive process that has the correct user name and a login device that has the correct attributes.

When a user enters ACMS using the ACMS/ENTER command, the user's original interactive process remains. PHONE sees the process and works from the DCL server to which the user is attached. If the user enters ACMS using the ACMS/ENTER/NORETURN command or through an ACMS controlled terminal, there is no interactive process to meet the Phone utility's requirements. Thus, the Phone utility does not work from the DCL server to which the user is attached.
- Submitters on VAXstation Must Have SHARE Privilege

A submitter logged in to a VAXstation device (WT or TK) cannot select a task that passes the terminal to a server process unless the server process has OpenVMS SHARE privilege. If the SHARE privilege is not defined, the submitter receives the %ACMSTRM-F-NOSHRPRV error and an entry is logged to the Software Event Logger (SWL).

SHARE privilege allows the server process to assign channels to devices allocated to other users, such as a workstation device.
- Task Debugger and Online Server Debugging

The following restrictions apply to the Task Debugger and online server debugging.

 - Examining Binary Date Data Types

The ACMS Task Debugger EXAMINE command misrepresents the value of an OpenVMS ADT (quadword binary date) data type under some conditions, and accurately displays its contents under other conditions. For example, the following command format displays incorrect results:

```
ACMSDBG> EXAMINE <workspace-name>
```

The workaround is to examine any binary date fields as individual, fully qualified single field names, rather than as part of the entire workspace. The following command displays the correct value for the date field:

```
ACMSDBG> EXAMINE/DATE <the-adt-date-field> OF <workspace-name>
```
 - Exiting the Task Debugger with Ctrl/C or Ctrl/Y

Exiting the ACMS Task Debugger with a Ctrl/C or Ctrl/Y may not delete the subprocess created for a server. This can happen if Ctrl/C or Ctrl/Y is used to exit the Task Debugger, and a server is attached to an Rdb database and is waiting for access to the database.

Restrictions

6.9 Restrictions Continued from ACMS Version 4.1

- Application Management Commands and Tools The following restrictions apply to the application management tools and commands.
 - ACMSPARAM May 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 Variables Required for ACMSPARAM.COM table in the HP ACMS for OpenVMS Managing Applications manual.

After executing ACMSPARAM, review the value of CP_PGFLQUOTA. If this 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 this quota. To fine-tune your system, calculate the quota for your particular system.
 - ACMSPARAM and ACMEXCPAR Do Not Support Search Lists

ACMSPARAM.COM and ACMEXCPAR.COM do not support logical name search lists for the TDB file specifications.
 - MSS Process Pool Exhausted Errors are Reported Incorrectly

If a process runs out of ACMS message switch subsystem (MSS) process pool when allocating a buffer prior to reading a message from a network link, the status is truncated and the following error is written to the software error log:

```
%ACMSMSS-I-ERRLNKREAD, Error reading network link
Unknown message - error code 0000A342
```

The correct reason is:

```
ACMSMSS-E-PROPOEXH, Process local pool is exhausted
```

To correct this problem, increase the MSS_PROCESS_POOL parameter in ACMSGEN, and restart the ACMS system.
- Task Queuing Restrictions

The following restrictions apply to task queuing.

 - Processing of Failed Queued Task Elements

If you are using a task queue file marked for RMS recovery-unit journaling, and a large number of queued task instances fail at the same time, in rare circumstances the QTI is unable to correctly process a failed queued task element. When this happens, the QTI cannot set the queued task element into a retry state, move it on to an error queue, or delete the queued task element. Instead, the failed queued task element is processed again immediately.

The QTI logs the following error entry in the ACMS audit log when this error occurs:

6.9 Restrictions Continued from ACMS Version 4.1

```

*****
Type      : ERROR      Time      : 14-OCT-1996 10:35:20.22
Queue     : QLT$QUEUE1
ErrQue    : QLT$ERRQUEUE1
Appl      : QLT_APPL
Task      : QLT_TASK_X
User      : QLT_USER_42
Elem Id   : 00000309-0000007E-D032A4E0-00948E68
Text      : Error processing queued task
           : -ACMSQUE-E-ERRPRCREC, Error trying to read the failed queued
           : task record during error processing
           : -RMS-S-OK_RRL, record locked against read but read anyway
*****

```

- Application Definition Utility (ADU) Restrictions

The following restrictions apply to the Application Definition Utility.

- ADU Migration from DMU Dictionary to CDO Dictionary

If the 26th character of an ACMS definition name is an underscore () or a dollar sign (\$), ADU is not able to convert the definition automatically from the DMU dictionary to the CDO dictionary.

The reason that ACMS is unable to do the conversion is that in order to migrate to the CDO dictionary, ADU must save a copy of the original definition in DMU while it is putting the new copy in CDO. Because you cannot have a definition with the same name in DMU format and CDO format, ADU renames the definition by prefixing the object name with ACMS\$.

If the object name was longer than 26 characters to begin with, ADU has to truncate the object name. If the 26th character is a dollar sign or an underscore, DMU does not allow ADU to write this definition to the DMU side of the CDD dictionary.

The workaround is to migrate manually any ACMS definitions with this characteristic.

- Workaround for MMS Restriction with ADU

The way that ADU handles procedure server transfer modules causes the HP/Module Management System (MMS) to process the server transfer object module (.OBJ) as if it were out of date. This is because ADU closes the .OBJ before it writes the BUILD audit record to the dictionary. The workaround is to copy the server transfer object module to itself in the action line in which you build your group. For example:

```

VR_TASK_GROUP.TDB DEPENDS_ON -
  VR_CHECKIN_TASK^, -
  VR_CHECKOUT_TASK^, -
  ...
  VR_VEHICLES_WKSP^
  ADU BUILD GROUP VR_TASK_GROUP VR_TASK_GROUP.TDB
  COPY VR_READ_SERVER.OBJ VR_READ_SERVER.OBJ
  PURGE VR_READ_SERVER.OBJ

```

This changes the modification date on the server transfer object module so that it is newer than the group definition in the dictionary. This ensures that MMS re-creates the server transfer object module only when necessary.

- Invalid Characters in ADU Cause ADU to Terminate with TKN_INVALID Error Message

Restrictions

6.9 Restrictions Continued from ACMS Version 4.1

If you use an invalid character in an ACMS definition, ADU terminates after giving the following error message:

```
ADU> @UPDATE_TASK.TDF
%ACMSTDU-F-TKN_INVALID, Invalid token class 1 detected by PARSER
-CMU-F-INROUTINE, error detected in routine PAT$LS_OUTPUT_TOKEN
```

The valid characters for identifiers are:

- A through Z
- a through z
- 0 through 9
- Dollar sign (\$)
- Underscore (_)

– Using Search Lists to Point to Multiple Dictionaries in ADU

In ADU, if you set default to a logical name defined as a search list, ADU sets default to only the first dictionary in the search list. If you include a search list logical name in an object's path name, ADU uses all dictionaries included in the search list to process that object.

– "End of Task-Referenced Workspace Table" Error on Selection of Invalid Task

If you incorrectly specify the same workspace twice while using the TASK ARGUMENTS clause, ADU does not recognize the problem. For example, the following statement should produce a syntax error, but it does not:

```
TASK ARGUMENTS ARE EMPLOYEE_REC WITH ACCESS READ,
                    EMPLOYEE_REC;
```

If you select this task, it is canceled. The message "end of task-referenced workspace table" is included as a part of the task's Audit Trail record, and it is written to SWL.

If you attempt to dump a task group containing this task, ADU gives an ACCVIO error.

• Request Interface (RI) Restrictions

The following restrictions apply to the Request Interface.

– User-Written Menus for the ACMS\$RI_AGENT

When you write a user-written menu routine for the ACMS\$RI_AGENT, it is important to be aware of how your chosen language handles dynamic string descriptors. The task name and application name arguments in the ACMS\$RI_AGENT are passed to the ACMS\$RI_MENU_ROUTINE as dynamic descriptors. If the language you have chosen does not support dynamic string descriptors, you must use an OpenVMS run-time library routine to return the task and application names to the ACMS\$RI_AGENT.

The following FORTRAN example accepts an application name and a task name into two fixed-length strings. The STR\$TRIM OpenVMS RTL routine is then used to remove trailing spaces and copy the names into the arguments supplied by the ACMS\$RI_AGENT.

6.9 Restrictions Continued from ACMS Version 4.1

```

!
!   THIS ROUTINE GETS THE TASK AND APPLICATION
!   NAMES FROM THE USER....
!
INTEGER FUNCTION ACMS$RI_MENU_ROUTINE(TASK,APPL,TASK_STS)
!
! Addresses of appl and task name dynamic string descriptors
INTEGER*4 TASK, APPL
!
! Completion status of previous task (0 if 1st time through)
INTEGER*4 TASK_STS
!
! Local strings to input application and task names
CHARACTER*32 TNAME, ANAME
!
! RTL completion status
INTEGER*4 STATUS
!
! RTL routine to trim spaces from a string
INTEGER*4 STR$TRIM
!
WRITE( UNIT=5,FMT='(A,$)' ) ' INPUT APPLICATION SELECTION: '
READ ( UNIT=5,FMT='(A32)' ) ANAME
WRITE( UNIT=5,FMT='(A,$)' ) ' INPUT TASK SELECTION: '
READ ( UNIT=5,FMT='(A32)' ) TNAME
!
STATUS = STR$TRIM( %REF(TASK), %DESCR(TNAME) )
IF (STATUS) THEN
STATUS = STR$TRIM( %REF(APPL), %DESCR(ANAME) )
END IF
!
ACMS$RI_MENU_ROUTINE = STATUS
RETURN
END

```

- ACMS and DECforms Restrictions

The following restrictions apply to ACMS and DECforms.

- Problems Using DECforms and TDMS in the Same ACMS Application

DECforms does not know when screen management routines or other forms products have changed the state of the display. This situation can result in incorrect painting of the screen, particularly during a sequence of task calls or chained tasks performing DECforms I/O and non-DECforms I/O.

In this case, add the REFRESH and the REMOVE statements to the form source file to eliminate incorrect repainting.

- DECforms Timeout Values

DECforms allows you to specify an infinite number of seconds as a timeout value for a panel or icon by specifying a zero or a negative value with the TIMEOUT subclause.

As an alternative, ACMS allows you to specify an infinite timeout value in ACMS in one of the following ways:

- You can code a zero value in the ADU subclause WITH TIMEOUT. The ADU subclause WITH TIMEOUT does *not* allow a negative value. If you code a negative value in this subclause, ADU returns the following syntax error:

```
%ACMSTDU-E-SYNTAXERR: Found '-' when expecting ';'

```

Restrictions

6.9 Restrictions Continued from ACMS Version 4.1

- You can place a negative value in the workspace field for WITH TIMEOUT.

Note that if you specify timeout values in both the DECforms and the ACMS definitions, the ACMS timeout value overrides the DECforms timeout value.

– Naming Form Image Files

Each form image file must have a unique name. If two form image files have the same name, problems occur.

DECforms uses the OpenVMS image activator to activate form images. The activator uses the file name to keep track of the images. Each image can be activated only once in a process. If an image file has been activated, then a different image file with the same name cannot be activated. Rather than giving two form image files the same name, use different file names. For example:

```
FORMS ARE
  form_a IN "DISK1$:[USER1]FORM.EXE" WITH NAME F1,
  form_b IN "DISK2$:[USER2]FORM.EXE" WITH NAME F2;

FORMS ARE
  form_a IN "DISK1$:[USER1]FORM_1.EXE" WITH NAME F1,
  form_b IN "DISK2$:[USER2]FORM_2.EXE" WITH NAME F2;
```

– BOLD Video Attribute Carried Forward from Menus

If a task selected from a DECforms menu performs terminal I/O, stream I/O, or runs a DCL server, the characters in the task are displayed on the screen with the BOLD video attribute.

In the DECforms form that displays the menu, the message panel uses the BOLD video attribute to display messages. After you enter input for the menu, the message line is updated and the BOLD video attribute is turned on. The BOLD video attribute is not turned off until DECforms or TDMS displays something on the terminal. Therefore, if you select a task that uses terminal I/O or stream I/O, or that runs a DCL server, the screen displays characters in the task with the BOLD video attribute.

There are two workarounds to this problem. Both of them change the appearance of the menu slightly and require the modification of the DECforms form that displays the menu.

If it is not necessary to use the BOLD video attribute in the message panel, change the definition of the message panel as follows:

```
/* Message Panel */
Message Panel MSGS_PANEL
End Panel
```

If it is necessary to use the BOLD video attribute in the message panel, an alternative solution is to add a panel to display a blank space at the upper left hand corner of the terminal. This panel is displayed by the control text response for clearing the screen. When you select a task from a menu displayed by DECforms, ACMS calls this control text response to clear the screen. When this control text response displays the added panel, the BOLD video attribute is turned off. Change the control text response and add a new panel as follows:

6.9 Restrictions Continued from ACMS Version 4.1

```

/* Control Text Response for clearing the screen */
Control Text Response "CLSCR"
  Remove All
  Display
    VIDEO_OFF_PANEL
End Response

/* Dummy panel to turn off video attributes from
previous display */

Panel VIDEO_OFF_PANEL
  Viewport DEFAULT_VIEW

  Literal Text
    Line 1
    Column 1
    Value " "
  End Literal

End Panel

```

- Workspace Looker not supported on HP OpenVMS Version 8.2-1 for HP Integrity Servers

The **Workspace Looker** is not supported on HP OpenVMS Version 8.2-1 for HP Integrity Servers but is supported on HP OpenVMS Alpha Version 8.2. The **Workspace Looker** is a development tool that is used for debugging ACMS applications during application development. For more details on the **Workspace Looker**, refer to the *HP ACMS for OpenVMS Writing Server Procedures* manual.

- ACMS Request Interface Sample Application not available on HP OpenVMS Version 8.2-1 for HP Integrity Servers

The ACMS Request Interface sample application is not available on HP OpenVMS Version 8.2-1 for HP Integrity Servers. It is only available on HP OpenVMS Alpha Version 8.2.

General Information

This chapter discusses topics of general interest concerning the ACMS release.

7.1 Periodically Delete Remote Manager Credential Files

The Remote Manager automatically creates credential files in the current local directory or in the specified by the logical `ACMS$MGMT_CREDS_DIR`. To conserve disk space, HP recommends that you periodically delete these files.

The credential file names follow the format *Username_PID_local-node_remote-node.DAT* and are valid for the period of time specified by the `proxy_creds_lifetime` parameter (default value is 60 minutes). All files older than `proxy_creds_lifetime` value can be deleted.

7.2 Add SYSLOCK Privilege to Accounts that run ACMS Processes

The SYSLOCK (system lock) privilege should be added to all accounts running the following ACMS processes:

```
ACMS01ACC001000
ACMS01EXC001000
ACMS01TSC001000
ACMS01CP001000
```

7.3 Setting Remote Manager Stacksize Parameters

The Remote Manager is implemented using DECthreads, which means that each thread within a Remote Manager process maintains its own stack. The Remote Manager contains the following parameters that enable the ACMS system managers to control the size of each thread stack:

```
dcl_stacksize (default=300)
log_stacksize (default=300)
msg_proc_stacksize (default=300)
proc_mon_stacksize (default=300)
rpc_stacksize (default=300)
snap_stacksize (default=30)
snmp_stacksize (default=300)
timer_stacksize (default=300)
trap_stacksize (default=300)
```

Each stack unit represents 8192 bytes for Alpha and 8192 bytes for Integrity server.

The current default values allow all threads to execute during normal operation. A single thread is required for each of the parameters, except for the snapshot thread (which uses the `snap_stacksize` parameter). For each data snapshot collection enabled, there is a thread associated with that snapshot collection.

General Information

7.3 Setting Remote Manager Stacksize Parameters

Therefore, the default stacksize for the `snap_stacksize` is 30 which equates to approximate 262 KB (on Alpha).

If any of the stacksize values are set too low, the related thread will fail, which may also cause the Remote Manager process to fail.

7.4 ACMSTRC\$_NOSUCHPGM Warning Message

A warning message, `ACMSTRC$_NOSUCHPGM`, may occasionally appear in the SWL log file. The following information was extracted from the trace message file that describes the most common circumstance that causes this message, and what, if anything, you should do when you see it.

Problem: This message is signaled when a trace mail message is received by the trace monitor from a program indicating that the program is about to exit and the trace manager was unaware that the program was running.

Action: In some cases, this message is normal, such as when some ACMS processes are started before the trace monitor starts and the processes exit shortly after the trace monitor starts. If you see an unusually high number of these messages, then you should report this to your HP support representative.

To minimize the occurrence of these messages, start the Remote Manager process before starting ACMS. The Remote Manager will start the Trace monitor process.

7.5 ACMS Does Not Support Pixel-Based Display Devices

DECforms Version 2.1 and later provide display support for character-cell (VT series) and pixel (DECwindows Motif) devices. ACMS support is limited to the character-cell devices.

7.6 ACMS\$TRACE_SHR.EXE Cannot be Installed Resident

`ACMS$TRACE_SHR.EXE` cannot be installed resident because it is built with `traceback`. It could be built with `notraceback`, but the image never really needs to be installed resident anyway.

`ACMSTART.COM` was modified to remove the optional resident flag from the install command for `ACMS$TRACE_SHR.COM`.

7.7 Remote Manager Shutdown Causes Accounting Records to be Written

When the `ACMSMGR STOP MANAGER` command is issued, records similar to the following are written to the accounting file:

Date / Time	Type	Subtype	Username	ID	Source	Status
15-JUL-1999 11:08:50	PROCESS	SUBPROCESS	THOMPSON	2160056A		00FDA8AA
15-JUL-1999 11:08:52	PROCESS	DETACHED	THOMPSON	21600569		00FE9F49

7.8 Logical Names for Workspace Pool Sizes in EXC

Prior to ACMS Version 4.2, the execution controller (EXC) used ACMSGEN parameters to size the workspace pools used during the execution of a task.

In ACMS Version 4.2, logical names can be defined to size the workspace pools on a per-application basis. The logicals that can be defined are:

- ACMS\$EXC_WS_POOLSIZ
- ACMS\$EXC_WSC_POOLSIZ
- ACMS\$EXC_TWS_POOLSIZ
- ACMS\$EXC_TWSC_POOLSIZ

The logicals can be defined at any level. To make them application-specific, reference logicals in the application definition or in a name table associated with an application. For example, in the application definition:

```
APPLICATION LOGICAL NAMES ARE
  ACMS$EXC_TWS_POOLSIZ = "1750",
  ACMS$EXC_TWSC_POOLSIZ = "75";
```

EXC allows one additional translation of the logical name so that an application definition does not have to be rebuilt to change a value. For example:

In the Application Definition Utility (ADU):

```
APPLICATION LOGICAL NAMES ARE
  ACMS$EXC_TWS_POOLSIZ = "ACMS$EXC_SAMPLE_TWS_POOLSIZ";
```

At DCL level:

```
$ DEFINE/SYSTEM ACMS$EXC_SAMPLE_TWS_POOLSIZ "1750"
```

The logical name (or the translation of it) must contain a valid decimal number (in pagelets for Alpha and Integrity server).

The ACMSGEN parameters are used if the logical cannot be translated or if the logical contains an invalid value or character.

If the value in one or more of the logicals is too high, the application will not start. (This behavior is the same for any value specified by ACMSGEN.)

The ACMSPARAM and ACMEXCPAR procedures do not have any knowledge of the changes being made to the workspace pools. Any calculations done by these procedures reflects the values in ACMSGEN.

7.9 Use Logical Names for File Allocation in ACMSATL

The Audit Trail Logger (ACMSATL) attempts to translate the following logical names and uses the values specified when the Audit Trail Log file is created:

- ACMS\$ATL_DEQ_BLOCKS — The default extension quantity (DEQ) specifies the number of blocks to be added when the file is extended. Valid values are 0 through 65535.
- ACMS\$ATL_ALQ_BLOCKS — The allocation quantity (ALQ) specifies the number of blocks to be initially allocated when the log is created. Valid values are 0 through 4,294,967,295.

See the *OpenVMS Record Management Services Reference Manual* for additional information on these fields.

General Information

7.10 New Logical Name Must be Defined for RI Agents and User-Written Agents

7.10 New Logical Name Must be Defined for RI Agents and User-Written Agents

During the initialization of a CP process or a user-written agent, ACMS determines the following two conditions: whether CMA is in the process and the version of DECforms being used. Depending on these two conditions, the ACMS agent with respect to DECforms operates in either SINGLE-USER mode or MULTI-USER mode.

SINGLE-USER mode is defined as one (1) user at a time executing an ACMS task. A single-threaded user-written agent is an example of SINGLE-USER mode.

MULTI-USER mode is defined as more than one (1) user at a time executing an ACMS task. A CP process is an example of MULTI-USER mode. If you use a MULTI-USER user-written agent with DECforms Version 2.2, the agent must be linked with CMA.

ACMS provides the logical name ACMS\$DECFORMS_IN_AGENT. This logical name must be defined as a process logical name when a user-written agent uses DECforms in ACMS tasks. The following values are valid for defining the logical name to a TRUE value: 1, "T", "t", "Y", "y". For example:

```
$ DEFINE/PROCESS ACMS$DECFORMS_IN_AGENT "Y"
```

ACMS Version 4.1 used the logical name ACMS\$CMA_USER_AGENT for essentially the same purpose, but the name was confusing. Later versions of ACMS still support this logical name, but it is undocumented.

HP recommends that you use settings for the logical name based on the version of DECforms that the agent uses, as follows:

- DECforms Version 1.4 is used. Defining the logical name ACMS\$DECFORMS_IN_AGENT is not required but has no harmful effects. Defining the logical name causes ACMS to load the FORMS\$MANAGER forms manager during initialization, rather than when the first DECforms call is made.
- DECforms Version 2.1B is used. The logical name ACMS\$DECFORMS_IN_AGENT must be defined to the TRUE value. Doing so ensures that ACMS brings CMA into the process if CMA is not already there.
- DECforms Version 2.2 or later is used. If the agent is intended to run in SINGLE-USER mode, defining the logical name ACMS\$DECFORMS_IN_AGENT has no effect, because CMA is not in the process. Defining the logical name causes ACMS to load the FORMS\$MANAGER forms manager during initialization, rather than when the first DECforms call is made.

Define the logical name ACMS\$DECFORMS_IN_AGENT only when using DECforms Version 2.1B or when using DECforms Version 2.2 or later in MULTI-USER mode.

7.11 Cache Directories for Application and Forms Files Should Not Be Write Protected

7.11 Cache Directories for Application and Forms Files Should Not Be Write Protected

The directories used for caching the application and forms files should not be write protected. Write protecting the caching directories will cause the task to fail when caching of the application or forms files to the submitter node is performed.

7.12 No Longer Necessary to Store ACMS Definitions in CDD

In previous versions of ACMS, after ACMS definitions were checked for syntax errors they were always stored in CDD. When all the definitions were processed, the definitions were read out of the dictionary, and a database file to be used by the ACMS run-time software was created. With ACMS Version 4.3 and later, the ACMS definitions no longer have to be stored in CDD. The ADU COMPILE command can be used to compile ACMS definitions and store the results in an OpenVMS file. Once all the definitions are processed, the ADU LINK command can be used to create the runtime database files.

CDD record definitions must continue to be stored in the dictionary. When determining whether to store definitions in CDD or to compile the definitions into OpenVMS files, keep in mind the following:

- All ACMS definitions that are going to be transformed for inclusion into a database file must be processed the same way.
For example, if you store a task group definition in the CDD, all task definitions referenced in the task group must also be stored in the dictionary. If, instead, you compile the task group definition, all referenced task definitions must be compiled.
- File-based processing requires that the files that are the compilation results of all referenced ACMS definitions be in the same directory with the same file extension. That is, the compilation results of all tasks required by a task group must be in the same directory with the same file extension. The same is true for all submenus required by a menu.

For more information about the ADU COMPILE and LINK commands, refer to the *HP ACMS for OpenVMS ADU Reference Manual*.

7.13 Formatting and Naming HP DECforms Form Image Files for Integrity server Submitter nodes

If the submitter node is an OpenVMS Integrity server system, the form image file (.EXE) on the application node must be an OpenVMS Integrity server image.

Use the following naming convention to distinguish the executables for each of the Open VMS platforms when you have a combination of OpenVMS Integrity server, OpenVMS Alpha and OpenVMS VAX submitter nodes:

- OpenVMS Integrity server form image file name - <form-name>.EXE_I64
- OpenVMS Alpha form image file name - <form-name>.EXE_AXP
- OpenVMS VAX form image file name - <form-name>.EXE_VAX

Troubleshooting Tips

The following sections discuss the kinds of information you should have available when reporting an ACMS problem.

8.1 Calling in a Problem to Your HP Support Representative

When you call your HP support representative to report a problem, the telephone support specialist will most likely ask you for the following information:

- Which versions of OpenVMS, ACMS, network, forms product, and programming language are you using?

Obtain the version information as follows:

– OpenVMS version

1. Identify the hardware type by logging in to the system and looking at the output of this statement:

```
$ WRITE SYS$OUTPUT F$GETSYI("ARCH_NAME")
```

The output will be either Alpha or I64.

2. Get the OpenVMS version from the first line of this command:

```
$ SHOW SYSTEM
```

– Network and firmware version and information

1. DECnet version number and ECO level
2. Firmware version
3. TCP/IP product name, version and ECO level

– ACMS version

Log in to the system experiencing the problem and type this file using the following command:

```
$ TYPE SYS$SYSTEM:ACMS_ECO_LEVEL.DAT
```

This file always contains the most accurate version identification information. Version IDs are not always updated throughout the ACMS system. This file is the most reliable source of ACMS version information.

– DECforms version

1. Get the image file identification of the FORMS\$MANAGER image:

Troubleshooting Tips

8.1 Calling in a Problem to Your HP Support Representative

```
$ ANALYZE/IMAGE SYS$SHARE:FORMS$MANAGER.EXE
Image Identification Information
image name: "FORMS$MANAGER"
image file identification: "FORMS V1.4-12"
link date/time: 25-JUN-1993 11:46:59.70
linker identification: "05-13"
Patch Information
```

2. Get the image file identification of the FORMS\$CIOSHR image:

```
$ ANALYZE/IMAGE SYS$SHARE:FORMS$CIOSHR.EXE
Image Identification Information
image name: "FORMS$CIOSHR"
image file identification: "FORMS V1.4-5"
link date/time: 8-APR-1992 21:04:07.36
linker identification: "05-05"
Patch Information
```

Report both of these image versions when reporting a problem with a system where DECforms is being used.

– TDMS version

Get the image file identification of the TSSSHR image:

```
$ ANALYZE/IMAGE SYS$SHARE:TSSSHR.EXE
Image Identification Information
image name: "TSSSHR"
image file identification: "TDMS V1.9A-0"
link date/time: 29-APR-1991 16:59:21.21
linker identification: "05-05"
Patch Information
```

– Programming language version

The programming language version is usually visible in the header of compiler listing files.

For example:

```
APPL_PROGRAM    Source Listing    22-NOV-1993    DEC COBOL V1.1-747
                Source Listing    12-OCT-1995    DEC C V4.1-001
```

- A clear statement of the problem, and why you feel this is an ACMS problem.
- What commands or process caused the problem?
- What were the exact error messages you received?
- What additional information appeared in either the ACMS Audit Trail Log file or the ACMS Software Event Logger (SWL)? Be sure to have these logs on hand when you place your call. Refer to *HP ACMS for OpenVMS Managing Applications* for details about these files.

The support specialist may also ask for the following information:

- The version number of other products you are using with ACMS.
- A description of the application and, if necessary, a small example of code that duplicates the problem.
- Whether you are running a distributed application.

8.1 Calling in a Problem to Your HP Support Representative

If you have a distributed environment, please report the clock time on both systems and note any time difference.

- Whether you are running with multiple submitter platforms (that is, whether the logical name ACMS\$MULTIPLE_SUBMITTER_PLATFORMS is defined to true).
- Whether the problem affects all users or only specific users.
- Whether the problem affects all applications or only specific tasks.
- Whether the tasks use remote requests.
- The types of devices being accessed.
- The ACMS system state at the time the problem occurred.
- Whether the problem is reproducible.
- Whether you can reproduce the problem running your application in the ACMS Task Debugger environment.
- Whether this command, statement, or application has worked before. If you answer yes to this question, the specialist will want to know what might have caused the change. For example, such changes might include updates to the operating system or layered products, bringing new production applications online, and adding new users.

After listening to your responses, the specialist might be able to provide immediate help or might have to call you back after doing some testing and research. For problems that the specialist cannot reproduce or resolve, you might be asked to supply additional detailed information.

8.2 Additional ACMS Information you can Collect

This section provides additional information that you may be asked to collect to assist in analyzing a problem. It would be helpful if, for very large log files, you extract and forward only the portion of the log file that represents the time of the error.

- The SWLUP log file. This file is most important. It is located in SYS\$ERRORLOG:SWL.LOG or in the directory pointed to by the logical ACMS\$SWL_LOG. Send the binary log file rather than an output report.
- The Audit Trail Log file. This file is located either in SYS\$ERRORLOG:ACMSAUDIT.LOG or in the directory pointed to by the logical ACMS\$AUDIT_LOG. Send the binary log file rather than an output report.
- Any ACMS dump files. These files are located in the SYS\$ERRORLOG directory, the default directory for the associated process user name, or in the directory pointed to by the logical SYS\$PROCDMP. The dump file names are in the form of ACMxxx.DMP.

Use the following commands to analyze the dump file:

```
$ ANALYZE/PROCESS/OUTPUT=<file-name>.DMP_INFO
DBG> SHOW CALLS
DBG> SHOW IMAGE
DBG> SHOW STACK
```

Troubleshooting Tips

8.2 Additional ACMS Information you can Collect

- All ACMSGEN parameters. Use the following commands to obtain this information:

```
$ RUN SYS$SYSTEM:ACMSGEN
ACMSGEN> USE_ACTIVE
ACMSGEN> WRITE ACMSGEN.LOG
ACMSGEN> EXIT
```

- All OpenVMS SYSGEN parameters. Use the following commands to obtain this information:

```
$ RUN SYS$SYSTEM:SYSGEN
SYSGEN> SET /OUT=SYSGEN.LOG
SYSGEN> SHOW /ALL
SYSGEN> SHOW /SPECIAL
SYSGEN> EXIT
```

- Memory on all systems involved. Use the DCL command SHOW MEMORY to obtain this information:

```
$ SHOW MEMORY/ALL/FULL/OUT=MEMORY.LOG
```

- The authorization data for all OpenVMS accounts used by ACMS. Run the OpenVMS Authorize Utility and then obtain a full listing (SYSUAF.LIS file) for each account:

```
$ RUN SYS$SYSTEM:AUTHORIZE
UAF> LIST/FULL <account-name>
UAF> EXIT
```

- All logical name tables. Use the DCL command SHOW LOGICAL to obtain this information:

```
$ SHOW LOGICAL/FULL/TABLE=*/OUT=ALL_LOG.LOG
```

8.2.1 Reporting Problems with ACMS Utilities

In addition to the information listed in Section 8.2, it may be helpful to collect the following information for problems with ACMS utilities:

- A listing of the definitions (including record, form, request, request library, task, task group, application, and menu) and procedures that may have caused the problem.
- The SWLUP log file. This file is very important. It is located in SYS\$ERRORLOG:SWL.LOG or in the directory pointed to by the logical ACMS\$SWL_LOG. Send the binary log file rather than an output report.
- The Audit Trail log file. This file is located either in SYS\$ERRORLOG:ACMSAUDIT.LOG or in the directory pointed to by the logical ACMS\$AUDIT_LOG. Send the binary log file rather than an output report.
- All ACMSGEN parameters. Use the following commands to obtain this information:

```
$ RUN SYS$SYSTEM:ACMSGEN
ACMSGEN> USE_ACTIVE
ACMSGEN> WRITE ACMSGEN.LOG
ACMSGEN> EXIT
```

Troubleshooting Tips

8.2 Additional ACMS Information you can Collect

- The authorization data for all OpenVMS accounts used by ACMS. Run the OpenVMS Authorize Utility, and obtain a full listing (SYSUAF.LIS file) for each account using the following commands:

```
$ RUN SYS$SYSTEM:AUTHORIZE
UAF> LIST/FULL <account-name>
UAF> EXIT
```

- All logical name tables. Use the DCL command SHOW LOGICAL to obtain this information:

```
$ SHOW LOGICAL/FULL/TABLE=*/OUT=ALL_LOG.LOG
```

8.2.2 Reporting Problems with the ACMS Run-Time System

In addition to the information listed in Section 8.2, it may be helpful to collect the following additional information for problems with the ACMS run-time system:

- Process dump files. These files are located in the SYS\$ERRORLOG directory, the default directory for the associated process user name, or the directory pointed to by the logical name SYS\$PROCDMP, if the error occurred in the Command Process (CP), the Application Execution Controller (EXC), the ACMS Central Controller (ACC), the Audit Trail Log (ATL), or the Terminal Subsystem Controller (TSC). The dump file names are in the form of ACMxxxx.DMP.

On Alpha and Integrity server systems, the dump files should be analyzed on the system where they were created. This should be done before the system is rebooted or modified in any way. Please provide the support specialist with the output file.

Use the following commands to analyze the dump file on Alpha and Integrity server systems:

```
$ ANALYZE/PROCESS_DUMP/OUTPUT=<file-name>.DMP_INFO-
_$/IMAGE=SYS$SYSTEM:ACMSEXC
```

The /IMAGE= qualifier is sometimes necessary to access the DEBUG.

```
$ DBG SHOW IMAGE
DBG> SHOW CALLS
DBG> SHOW STACK
```

- All OpenVMS SYSGEN parameters. Use the following commands to obtain this information:

```
$ RUN SYS$SYSTEM:SYSGEN
SYSGEN> SET /OUT=SYSGEN.LOG
SYSGEN> SHOW/ALL
SYSGEN> SHOW/SPECIAL
SYSGEN> EXIT
```

- Memory on all systems involved. Use the DCL command SHOW MEMORY to obtain this information:

```
$ SHOW MEMORY/ALL/FULL/OUT=MEMORY.LOG
```

- Output from the SDA utility for any ACMS processes that appear to be hung. Use the following commands to obtain the information:

Troubleshooting Tips

8.2 Additional ACMS Information you can Collect

```
$ ANALYZE/SYSTEM
SDA> SET PROCESS/ID=pid-of-hanging-process
SDA> SHOW PROCESS
SDA> SHOW PROCESS/CHANNEL
SDA> SHOW PROCESS/IMAGES
SDA> SHOW PROCESS/PHD
SDA> SHOW CALL
SDA> SHOW CALL/NEXT
SDA> SHOW CALL/NEXT !repeat this until there are no more calls
Call Frame Information
-----
%SDA-E-NOTINPHYS, 00000000 : not in physical memory
SDA> EXIT
```

- Collection of current PCs and other information from any process that may be hung. Use the following process to capture this information:

```
$ SET HOST/LOG=output-file NODE::
```

After logging in:

```
$ SET TERM/UNKNOWN
$ SHOW PROCESS/ID=pid/CONTINUOUS
```

Let this run for 15 to 20 minutes, then press CTRL/Z.

```
$ LOGOUT
```

Submit the output file with the problem report.

- A machine-readable copy of the OpenVMS SYSGEN parameter values. This may be useful if there is an unexpected process dump. Use the following commands to obtain these values:

```
$ RUN SYS$SYSTEM:SYSGEN
SYSGEN> USE ACTIVE
SYSGEN> WRITE <file-spec>
```

The USE ACTIVE command copies the current parameter values into your work area. The WRITE command creates a machine-readable version of this information in the output file you specify.

- A listing of the ACMSGEN parameters.
- A listing of the definitions (including form, request, request library, task group, task, record, application, and menu) and procedures for the task that may have caused the problem.
- A listing of the parameter settings of the various user names under which the ACMS components were running when the problem occurred. Use the OpenVMS Authorize Utility to obtain this information:

```
$ RUN SYS$SYSTEM:AUTHORIZE
UAF> LIST/FULL <user-name>
```

The LIST/FULL command writes the information to a file called SYSUAF.LIS in your default directory. The file includes the user name, the user identification code (UIC), the default OpenVMS directory, privileges, and a list of the OpenVMS quotas and values assigned for that user name.

Information about the user names for the ACMS Central Controller (ACC), the Terminal Subsystem Controller (TSC), the Application Execution Controller (EXC), and the Command Process (CP) is useful in determining the events surrounding a problem with the ACMS system.

- A listing of the Audit Trail Report for the error.

Troubleshooting Tips

8.2 Additional ACMS Information you can Collect

- A listing of the ACCOUNTING log report.
- A listing of the hardware error log (Error Log Utility).

8.2.3 Reporting Problems with the Remote Manager Web Agent

If you encounter problems with the Remote Manager web agent process (ACMS\$MGMT_HMMO), refer to the following files for error information specific to the web agent:

```
SYS$SPECIFIC:[WBEM]ACMS$MGMT_HMMO.LOG;*
SYS$SPECIFIC:[WBEM]ACMS$MGMT_HMMO.ERR;*
SYS$SPECIFIC:[WBEM]*.DMP;*
```

If the problem is with WBEM\$SERVER process, supply your HP support representative with the dump file. If the problem is with the Remote Manager web agent process, please have the following files ready for analysis in addition to a procedure which reproduces the error condition:

```
SYS$SPECIFIC:[WBEM]ACMS$MGMT_HMMO.LOG;*
SYS$SPECIFIC:[WBEM]ACMS$MGMT_HMMO.ERR;*
SYS$SPECIFIC:[WBEM]*.html;*
SYS$SPECIFIC:[WBEM]*.txt;*
SYS$SPECIFIC:[WBEM]SYS$OUTPUT.*;
SYS$SPECIFIC:[WBEM]*.DMP;*
```

