

Oracle® Trace

Installation Guide

Release 7.4

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ORACLE®

Oracle Trace Installation Guide

Release 7.4.1.0 on OpenVMS Industry Standard 64 for Integrity Servers and OpenVMS Alpha operating systems.

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Oracle Corporation - Worldwide Headquarters, 2300 Oracle Way, Austin, TX 78741, United States

Primary Author: Rdb Engineering and Documentation group

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Preface

This document describes how to install the Oracle Trace release 7.4 software.

Oracle Trace is a layered product that gathers and reports event-based data from any combination of OpenVMS layered products and application programs containing Oracle Trace service routine calls. The Oracle Trace documentation refers to application programs that contain Oracle Trace service routines as **facilities**. The following products are facilities:

- VSI ACMS for OpenVMS
- VSI DECforms for OpenVMS
- Oracle CODASYL DBMS
- Oracle Rdb Server

You can collect event-based data from products that contain Oracle Trace service routine calls. You can also add Oracle Trace service routines to your own applications to collect data from them. The process of adding Oracle Trace service routine calls to an application is called **instrumenting** an application. The products that are instrumented for Oracle Trace provide documentation that describes details of their instrumentation.

Oracle Trace software operates with minimal performance impact on the system. It can run with both the development and production versions of your application to give you information about the behavior of your application.

Intended Audience

This manual is intended for system managers.

Structure

This manual has three chapters and two appendixes.

Chapter 1	Describes how to prepare for the installation.
Chapter 2	Describes how to install the Oracle Trace software.
Chapter 3	Describes what to do after the installation.
Appendix A	Provides a sample installation log.

Related Documents

The other components of the Oracle Trace documentation set are:

- *Oracle Trace Collector User's Guide*
Provides a detailed description of how to use the Oracle Trace software.
- *Oracle Trace Release Notes*
Provides additional information about Oracle Trace that was not included in the *Oracle Trace Collector User's Guide*.
- *Oracle Trace Getting Started*
Provides an introduction and overview to the Oracle Trace software.
- *Oracle Trace Report User's Guide*
Describes Oracle Trace formatting and reporting.
- `SYSS$HELP:EPC$MSG.DOC`
This file is provided during product installation. It is a plain text file listing all Oracle Trace error messages, a short explanation and suggested user responses to those errors.

Conventions

The special symbols used in this book are:

Symbol	Meaning
BOLD	Bold lettering in text indicates the definition of a new term.
[]	Brackets indicate optional elements.
...	Horizontal ellipsis in an example indicate that you can enter additional parameters, values, or information.
.	Vertical ellipsis in an example means that information not directly related to the example has been omitted.
\$	The dollar sign is used to indicate the DCL prompt. This prompt may be different on your system.

References to Products

The Oracle Trace documentation often refers to products by their abbreviated names:

- OpenVMS Industry Standard 64 for Integrity Servers is referred to as OpenVMS IA-64.
- OpenVMS refers to both the OpenVMS IA-64 and OpenVMS Alpha operating systems.

Preparing to Install Oracle Trace

This chapter discusses the preparations and requirements necessary for installing Oracle Trace release 7.4.

Oracle Trace provides online release notes. Oracle strongly recommends that you read the release notes before proceeding with the installation. For information on accessing the online release notes, see Section 2.1.1.

1.1 Required Operating System Components

Oracle Trace release 7.4 is available for the OpenVMS Industry Standard 64 for Integrity Servers (OpenVMS IA-64) and OpenVMS Alpha operating systems. Oracle Trace requires OpenVMS version 8.4 or later operating system.

1.2 Prerequisite and Optional Software

This section discusses the software you must have installed on your system before installing Oracle Trace. The section also includes information about optional software that you can use together with Oracle Trace.

Oracle Trace release 7.4 requires Oracle Rdb Server release 7.2 or later.

Oracle Trace release 7.4 is compatible with the following software products:

- VSI ACMS for OpenVMS
- VSI DECforms for OpenVMS
- Oracle CODASYL DBMS
- Oracle Rdb Server

1.3 OpenVMS Cluster Considerations

To use Oracle Trace in a cluster environment, specify EPC\$ROOT (when prompted during the installation) to be on a common shared disk for all nodes that will run Oracle Trace.

If you are installing Oracle Trace in a mixed cluster environment, you must perform the installation procedure on each of the system disks in the cluster. The Oracle Trace software distinguishes the group of nodes booted from each system disk as a separate cluster for cluster operations using Oracle Trace commands. Alternately, you can specify EPC\$ROOT to point to a cluster-wide accessible directory for all nodes comprising the mixed cluster. Oracle Trace would then treat all nodes in the mixed cluster as members of a single cluster.

1.4 Preparing Your System and the Installing Account

The following sections discuss various requirements for installing Oracle Trace.

1.4.1 Time

The installation takes approximately 5 to 10 minutes, depending on your system configuration.

1.4.2 Privileges

To install Oracle Trace, you must be logged in to an account that has SETPRV or at least the following privileges:

ALTPRI	IMPERSONATE	SYSGBL	SYSPRV
BYPASS	NETMBX	SYSLCK	TMPMBX
CMKRNL	PRMGBL	SYSNAM	WORLD

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

1.4.3 Disk Space

The installation procedure checks your system during installation and determines whether you are in a cluster or standalone environment. On a standalone system, the installation creates a smaller administration database. If you later add this standalone machine to a cluster, or build a cluster around the standalone node, you must reinstall the Oracle Trace software so that the installation procedure creates the larger cluster administration database. See the EXTRACT DEFINITION command in the *Oracle Trace Collector User's Guide* for information on how to move existing facility definitions from one administration database to another.

Table 1–1 summarizes the storage requirements during and after installation for the Full, Collector, Monitor and Reporter Versions of Oracle Trace. Note that the requirements for an upgrade may be higher because the installation procedure attempts to convert existing history and administration databases to the Oracle Trace metadata V1.2-0 format.

Table 1–1 Disk Space Requirements for Oracle Trace

Version	Blocks During Installation	Blocks After Installation
Oracle Trace Standalone version	23,300	14,100
Oracle Trace Cluster version	26,900	18,100
Reporter	15,300	1700
Collector	20,900	11,200

During the installation, you can put the Oracle Trace root directory (EPC\$ROOT) on any device that is accessible from all nodes in your cluster. Table 1–2 shows the disk space requirements for each device. You should plan for additional space on the EPC\$ROOT device to accommodate the history database (EPC\$HISTORY_DB) and any dump files created by Oracle Trace in the case of a bugcheck. If disk

quotas are enabled on the EPC\$ROOT device, the EPC\$SERVER account is given a quota of 100,000 blocks.

Table 1–2 Permanent Disk Space Requirements for Oracle Trace Full or Collector Versions Using Two Devices

Configuration	System Disk	EPC\$ROOT Disk	Total
Standalone	5,900	8,200	23,300
Cluster	9,700	8,400	26,900

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

```

$ SHOW DEVICE SYS$SYSDEVICE

```

1.4.4 System Parameters

Installing Oracle Trace requires certain system parameter settings. Table 1–3 lists the minimum required system parameter values for the installation. Depending on the kinds of programs and applications running at your site, you might need higher values for some settings.

Table 1–3 Required System Parameter Values

System Parameter	Value
CLISYMTBL ¹	250
GBLPAGES	105 available pages
GBLSECTIONS	8 available sections
LOCKIDTBL_MAX ²	2,048 entities
MAXBUF ²	1,200 bytes
PROCSECTCNT	32 sections
RESHASHTBL	512 entries
SRPCOUNTV	2,048 packets
VIRTUALPAGECNT ³	20,000

¹The CLISYMTBL dynamic system parameter must be set to a minimum value of 250 during the installation procedure. If the current CLISYMTBL setting is less than 250, you can lower the setting to its original value once the installation is finished.

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

³This parameter should be set high to facilitate formatting of large data collection files and reporting on large formatted databases. You might need to raise this parameter to 50,000 or more.

The following sections show you how to:

- Check system parameter values
- Calculate values for the GBLPAGES and GBLSECTIONS system parameters
- Change parameter values with the OpenVMS AUTOGEN command procedure
- Set dynamic parameters (such as CLISYMTBL) with the *OpenVMS System Management Utilities Reference Manual; System Generation Utility (SYSGEN)*

1.4.4.1 Checking System Parameter Values

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

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

At the SYSGEN> prompt, enter the SHOW command to display the value of a system parameter. The values displayed should equal or exceed the values of the parameters listed in Table 1–3. The following command displays the value for the MAXBUF system parameter:

```
SYSGEN> SHOW MAXBUF
```

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

1.4.4.2 Calculating the Values for GBLPAGES and GBLSECTIONS

To install and run Oracle Trace, you must have sufficient free global pages and global sections. You must first find out how many free global pages and sections you have on your system. Then use AUTOGEN if you need to increase the GBLPAGES and GBLSECTIONS system parameters.

Use the WRITE command with the F\$GETSYI lexical function to find the number of free global pages and global sections. The following example shows how to get this information at your terminal (the default for SYS\$OUTPUT):

```
$ FREE_GBLPAGES = F$GETSYI("FREE_GBLPAGES")
$ FREE_GBLSECTS = F$GETSYI("FREE_GBLSECTS")
$ show symbol FREE_GBLPAGES
FREE_GBLPAGES = 99382160 Hex = 05EC7390 Octal = 00573071620
$ show symbol FREE_GBLSECTS
FREE_GBLSECTS = 1398 Hex = 00000576 Octal = 00000002566
```

If the values displayed by the system are greater than the values in Table 1–3, you do not need to increase the values for these parameters. If the values of free global pages or global sections are less than the values in Table 1–3, you must increase the system parameter settings.

Section 1.4.4.3 describes the procedures for increasing these values by using AUTOGEN. Refer to the *OpenVMS System Manager's Manual, Volume 2: Tuning, Monitoring, and Complex Systems; Recommended Method for Changing Parameter Values* for information on using AUTOGEN.

1.4.4.3 Changing System Parameter Values with AUTOGEN

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

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

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

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

```
WSMAX = 1024
```

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

```
ADD_GBLPAGES = 2000
```

After you have made all your changes, exit from the editor and run the AUTOGEN procedure to recalculate your system parameters. Enter the following command at the DCL prompt:

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

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

The AUTOGEN Utility automatically adjusts some of the SYSGEN parameters based on the consumption of resources since the last reboot. If you do not want to take advantage of this automatic adjustment, include the /NOFEEDBACK qualifier on the AUTOGEN command line.

For more information about using AUTOGEN, see the *OpenVMS System Manager's Manual, Volume 2: Tuning, Monitoring, and Complex Systems; Recommended Method for Changing Parameter Values*.

1.4.4.4 Setting Dynamic System Parameter Values

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

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

Oracle Trace requires the following dynamic parameter value:

- CLISYMTBL—250

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

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

1.4.5 Process Account Quotas

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

Table 1–4 Process Account Quotas for the Installing Account

Account Quota	Value
ASTLM	24
BIOLM	20
BYTLM	20480
DIOLM	20
ENQLM	1800
FILLM	50
PGFLQUO ¹	20000
WSEXTENT ¹	2048 or greater
WSQUOTA ¹	1024 or greater

¹These parameters need to be set high to facilitate the formatting of large data collection files.

User account quotas are stored in the file SYSUAF.DAT. Use the OpenVMS Authorize Utility to verify and change user account quotas.

```
$ RUN SYS$SYSTEM:AUTHORIZE
UAF>
```

At the UAF> prompt, use the SHOW command with an account name to check a particular account. For example:

```
UAF> SHOW SMITH
```

To change a quota, use the MODIFY command. MODIFY has the following format:

```
MODIFY account-name /quota-name=n
```

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

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

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

For more information on modifying account quotas, see the *OpenVMS System Management Utilities Reference Manual; Authorize Utility*.

1.4.6 VMSINSTAL Requirements

When you invoke VMSINSTAL, it checks whether or not you have:

- Logged in to a privileged account
- Provided adequate quotas for installation
- DECnet running
- Any users logged in to the system

See Table 1–4 for the minimum quotas required for the installation account.

If VMSINSTAL detects any problems during the installation, it notifies you and asks if you want to continue the installation. In some instances, you can enter YES to continue. To stop the installation process and correct the situation, enter NO or press RETURN. Then correct the problem and restart the installation.

1.4.7 Backing Up Your System Disk

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

Use the backup procedures established at your site. For details on performing a system disk backup, see the *OpenVMS System Management Utilities Reference Manual; Backup Utility*.

1.4.8 Oracle Trace Requirements

During the installation procedure, the Oracle Trace software checks:

- If Oracle Rdb Server release 7.2 or later is installed, and the Oracle Rdb monitor process is active on the system. To start the Oracle Rdb monitor, issue the following command:

```
$ @SYS$STARTUP:RMONSTARTnn
```

The nn represents the version of Oracle Rdb being used.

- The Oracle Trace Registrar process is running, to learn if this is a reinstallation. For reinstallations, be sure to first stop the Oracle Trace Registrar process by issuing the following command on all nodes in the OpenVMS cluster:

```
$ COLLECT STOP SYSTEM/ABORT
```

In addition, all users should exit from the Oracle Trace command environment. If any user is bound to the history or administration databases, the installation procedure will not be able to convert those files to the new 7.4 format.

In addition, Oracle recommends that before starting an upgrade, you first cancel all active collections, then shut down the Registrar process. After the installation, all registered images should be restarted.

If you do not cancel all collections before an upgrade, any processes that are gathering data will continue to do so until the collection interval ends, or the image terminates, whichever comes first. Changes to facility definitions might make it impossible to format or merge the data collection files produced by previous versions of Oracle Trace.

After an upgrade, any processes which had been registered should be restarted so that they will reregister and be available for collection.

Installing Oracle Trace

This chapter describes how to install Oracle Trace. Section 2.2 contains a step-by-step description of the installation procedure.

2.1 General Information

This section includes information about the following topics:

- Determining files and logical names added to your system
- Running the Installation Verification Procedure (IVP)
- Aborting the installation

2.1.1 Accessing the Online Release Notes

Oracle Trace provides online release notes. You specify `OPTIONS N` when you invoke `VMSINSTAL` to see the question about online release notes. This question comes near the beginning of the installation.

You should review the release notes in case they contain any information about last-minute changes in the installation procedure. If you are starting the installation over again and have already reviewed the release notes, you do not need to specify `OPTIONS N`.

Once Oracle Trace has been installed, the release notes are located in the following file:

```
SYS$HELP:EPC07410.RELEASE_NOTES
```

2.1.2 Determining the Logical Names and Files Added to the System

The following logical names are defined on your system:

- `EPC$ADMIN_DB`
- `EPC$DATABASE_DIR`
- `EPC$EXAMPLES`
- `EPC$HISTORY_DB`
- `EPC$HOME_DIR`
- `EPC$ROOT`

See the end of Appendix A for a list of all files created by the installation procedure.

To remove Oracle Trace from your system, use the deinstallation procedure in `SYS$UPDATE:EPC$DEINSTALL.COM`. See Section 3.8 for information.

2.1.3 Running the Installation Verification Procedure (IVP)

The Installation Verification Procedure (IVP) for Oracle Trace verifies the installation. During the installation, you are asked if you want to run the IVP as part of the installation. If you respond YES, VMSINSTAL runs the IVP. Oracle recommends that you run the IVP to make sure that the Oracle Trace software is installed correctly.

After Oracle Trace is installed, you can run the IVP independently to verify that the software is available on your system. You might need to run the IVP after a system failure to make sure that users can access Oracle Trace.

2.1.4 Cancelling the Installation

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

2.2 The Installation Procedure

The Oracle Trace installation procedure consists of a series of questions and informational messages.

2.2.1 Invoking VMSINSTAL

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

```
@SYS$UPDATE:VMSINSTAL saveset-name kit-location OPTIONS N
```

saveset-name

The installation name for the component. For Oracle Trace, use the following installation name:

```
EPC07410I074
```

kit-location

Use the name of the device and directory where the kit was downloaded.

OPTIONS N

An optional parameter that indicates you want to see the release notes question. If you do not include the OPTIONS N parameter, VMSINSTAL does not ask you about the release notes. You should review the release notes before proceeding with the installation in case they contain new information about the installation.

Note that there are several other options you can select when you invoke VMSINSTAL. See the OpenVMS documentation on software installation in *OpenVMS System Manager's Manual, Volume 1: Essentials; Preparing Your System to Run VMSINSTAL.COM* for information on these options. If you specify more than one option, separate the options with commas (OPTIONS A,N).

The following example invokes VMSINSTAL to install Oracle Trace from a disk directory that contains the kit saveset and shows the system response. This example uses the OPTIONS N release note parameter:

```
$ @sys$update:vmsinstal EPC07410I074 DISK1:[TRACE.KIT] OPTIONS N
      OpenVMS Software Product Installation Procedure V8.4-2L3
```

It is 6-AUG-2024 at 17:09.

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

%VMSINSTAL-W-NOTSYSTEM, You are not logged in to the SYSTEM account.

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

2.2.2 Installation Questions

This section discusses the questions that appear during the installation. Appendix A contains a sample installation procedure showing how the questions can be answered.

Each question asked during the installation procedure is marked with an asterisk (*) at the beginning of the line. Some questions show the default response in brackets, for example [YES]. To use the default response, press the RETURN key.

1. Verifying interactive login status

VMSINSTAL displays a list of all active processes. It then asks if you want to continue the installation. NO is the default response to the question.

```
%VMSINSTAL-W-ACTIVE, The following processes are still active:
```

```
.  
.  
.
```

```
* Do you want to continue anyway [NO]? Y
```

2. Verifying system backup

VMSINSTAL asks if you are satisfied with your system backup. You should always back up your system disk before performing an installation. If you are satisfied with the backup of your system disk, press RETURN. Otherwise, enter NO to discontinue the installation. After you back up your system disk, you can restart the installation.

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

3. Specifying the distribution kit

Have access to the device and directory where the Oracle Trace kit is located.

```
* Where will the distribution volumes be mounted: DISK1:[TRACE.KIT]
```

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

```
* Products: EPC07410I074
```

```
* Enter installation options you wish to use (none):
```

The following products will be processed:

```
EPC07410I V7.4
```

```
Beginning installation of EPC07410I V7.4 at 17:14
```

```
* Do you want to install this product [NO]? Y
```

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

4. Specifying release note options

If you specified **OPTIONS N** when you started the installation, **VMSINSTAL** asks a release notes question. There are four options:

The display is as follows:

Release notes included with this kit are always copied to **SYS\$HELP**.

Additional Release Notes Options:

1. Display release notes
2. Print release notes
3. Both 1 and 2
4. None of the above

* Select option [2]: 2

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

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

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

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

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

VMSINSTAL automatically copies the Oracle Trace release notes to the system help directory. The file specification is:

```
SYS$HELP:EPC07410.RELEASE_NOTES
SYS$HELP:EPC07410_RELEASE_NOTES.PDF
```

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

5. Accommodating multiple versions of Oracle Rdb

If you are running multiple versions of Oracle Rdb, you must select one version to use for the Oracle Trace databases. The Oracle Trace release 7.4 installation procedure lists your current Oracle Rdb versions and prompts you to choose one.

The following messages and questions are displayed only if the installation procedure detects that you have multiple versions of Oracle Rdb installed:

```
Your current process level version of Oracle Rdb is
```

```
Current SYSTEM Oracle Rdb environment is version V7.4-130 (MULTIVERSION)
```

```
The following versions of Oracle Rdb are installed on your system
```

```
7.2          (V7.2-57)
7.3          (V7.3-40)
7.4          (V7.4-13)
```

```
*****
```

```
You have multiple versions of Oracle Rdb on your system.
```

```
*****
```

```
The default version of Oracle Rdb to be used for this
installation is: 7.4
```

```
The corresponding Oracle Rdb monitor must be running.
```

The selected Oracle Rdb version will be used to access the Oracle Trace databases (ADMIN and HISTORY) during the IVP

* Do you want to use this version of Rdb [YES]? Y

If the Oracle Rdb monitor (RDMS_MONITORxx) is not running the install will fail accessing the databases. If you want to use a specific version and the corresponding Oracle Rdb monitor is not running, you may abort the installation, start the monitor (@SYSS\$STARTUP:RMONSTARTxx.COM) and restart the installation.

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

Current PROCESS Oracle Rdb environment is version V7.4-130 (MULTIVERSION)
Current PROCESS SQL environment is version V7.4-130 (MULTIVERSION)
Current PROCESS Rdb/Dispatch environment is version V7.4-130 (MULTIVERSION)

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

It is important to note that if you are upgrading Oracle Trace and choose to build the Oracle Trace databases using a version of Oracle Rdb older than the current databases, the extraction of data from the administration database may fail if that older version has not also been started on this system.

In this case, you may need to extract the facility definitions yourself prior to the installation. All collection and selection data will be lost when new databases are built during the installation. After the installation, you can reinsert the facility definitions into the administration database. See the *Oracle Trace Collector User's Guide* for more information on extracting and inserting facility definitions.

See the *Oracle Rdb Server Installation and Configuration Guide*, *Oracle Rdb Server Release Notes*, and Oracle Rdb user documentation for information on using multiple versions of Oracle Rdb on your system.

If you answer "YES" to the using the process default prompt, the installation continues.

The detached process EPC\$REGISTRAR will be started with 7.4, as it's default version.
If you wish to at this time you may change this to be the default system version of Oracle Rdb as well.

6. Specifying the device for the Oracle Trace root directory

You must specify a device for EPC\$ROOT that is accessible from all nodes in your cluster. You usually put EPC\$ROOT on your system disk, but you can use any disk that is accessible cluster-wide.

The default file location for EPC\$ROOT is SYSS\$SYSDEVICE:[EPC].

If you are installing Oracle Trace in a mixed cluster, specify EPC\$ROOT to point to a cluster-wide accessible device for each group of nodes comprising the mixed cluster. Oracle Trace distinguishes each group as a separate cluster for cluster options on Oracle Trace commands. Alternately, you can specify EPC\$ROOT to point to a device that is accessible cluster-wide. Oracle Trace treats all nodes in the mixed cluster as members of a single cluster.

7. Allowing access to the administration and history databases

With Oracle Rdb, only creators of a database or users with **BYPASS** or **SYSPRV** privileges may read or modify a database. The Oracle Trace installation procedure allows you to grant non-privileged users access to the Oracle Trace administration and history databases.

By adding PUBLIC access to the Oracle Trace databases you are allowing all users on your system access to Oracle Trace. If you want to allow only certain users access to Oracle Trace, enter No at the prompts and add the users directly via the Oracle Trace SET ACCESS command after the installation.

- * Do you want to add PUBLIC write access to the ADMINISTRATION database [YES]?
- * Do you want to add PUBLIC write access to the HISTORY database [YES]?

For reinstallations or upgrades from previous versions of Oracle Trace, the existing administration and history databases may be converted to the Oracle Trace metadata V1.2-0 format. Access to the files is automatically granted to all users.

8. Creating the EPC\$SERVER account

The installation requires an EPC\$SERVER account. You must choose a unique UIC and password for this account. The UIC value, specified in octal, is a group and member number separated by a comma and enclosed in brackets. Oracle recommends that you use a unique member from within the 376 UIC group. Use the OpenVMS Authorize Utility to list the accounts within the 376 UIC group. For example:

```
$ run sys$system:authorize
UAF> show /ident/user=[376,*]
Name                               Value                               Attributes
CML$SERVER                          [000376,000366]
MIRRO$SERVER                         [000376,000367]
VPM$SERVER                           [000376,000370]
NML$SERVER                           [000376,000371]
PHONE$SERVER                         [000376,000372]
MAIL$SERVER                          [000376,000374]
UAF>
```

Choose a unique member number for the EPC\$SERVER account:

This installation requires the creation of the EPC\$SERVER account. You MUST choose a UIC and password for this account.

The installation procedure will not proceed until you enter a valid user identification code (UIC) for the EPC\$SERVER account.

- * Enter UIC to be used for EPC\$SERVER account (e.g. [376,750]): [376,411]

Next, you must specify a password for the new EPC\$SERVER account. The password can be from 15 to 31 characters in length, and can include alphanumeric characters, dollar signs (\$), and underscores (_). For security reasons, your input is not echoed on the terminal.

For reinstallations or upgrades from previous versions of Oracle Trace, the old EPC\$SERVER account will continue to be used. However, you must still enter a new password for it.

The entire installation will FAIL if you do not enter a valid password for the EPC\$SERVER account. This installation procedure requires at least 15 characters for the EPC\$SERVER password. Valid characters for a password are:

- A through Z
- a through z
- 0 through 9
- \$ (dollar sign)
- _ (underscore)

As with the DCL SET PASSWORD command, your input will not appear on the terminal.

Please enter a password of at least 15 characters.

* Password:

* Verification:

Note that if disk quotas are enabled on the EPC\$ROOT device, the EPC\$SERVER account is given a quota of reference<>(disk_quota) blocks.

9. Choosing to run the Installation Verification Procedure (IVP)

The installation procedure now asks if you want to run the Installation Verification Procedure. The IVP for Oracle Trace checks to be sure that the installation is successful. Oracle recommends that you run the IVP.

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

10. Choosing to purge files

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

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

If you answer "NO" then older TRACE files are left behind.

11. Converting the history and administration databases

For reinstallations or upgrades from previous versions of Oracle Trace, the existing administration and history databases are automatically converted to the Oracle Trace metadata V1.2-0 format.

During the conversion of the administration database, the installation procedure checks for facility definitions with characteristics exclusive to Oracle Trace metadata V1.0 and V1.0A, namely, events that are both point and duration. These facility definitions cannot be converted to the metadata V1.2-0 format and must be deleted from the administration database. The installation procedure lists any illegal facility definitions and gives you the option of cancelling the installation at that time. You can use the Oracle Trace DELETE DEFINITION command to remove the offending definitions and then restart the installation of Oracle Trace 7.4. If you choose to continue the installation without deleting the offending facility definitions, a new (empty) database is created and your old database is deleted.

Note that if any user is bound to the history or administration databases, the installation procedure will not be able to convert the database.

2.2.3 Informational Messages

At this point, the installation procedure displays a number of informational messages that report on the progress of the installation. There are no further questions. If the installation procedure has been successful up to this point, VMSINSTAL moves the new or modified files to their target directories, updates help files, and updates DCL tables, if necessary. If you chose to have files purged, that work is done now. The following message is displayed:

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

2.2.4 Running the Installation Verification Procedure

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

```
*****
*
*          Oracle Trace V7.4.1.0 IVP Completed Successfully
*
*****
```

The IVP procedure is stored in SYS\$TEST. You can run it any time you want to confirm that Oracle Trace is performing correctly. Use the following command to execute the procedure:

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

2.2.5 Completing the Installation Procedure

The following messages indicate that the VMSINSTAL procedure is complete:

```
Installation of EPC07410I V7.4 completed at 17:30
Adding history entry in VMI$ROOT:[SYSUPD]VMSINSTAL.HISTORY
Creating installation data file: VMI$ROOT:[SYSUPD]EPC07410I074.VMI_DATA
VMSINSTAL procedure done at 17:30
```

You can now log out of the privileged account:

```
$ LOGOUT
SYSTEM    logged out at 6-AUG-2024 17:31:10.60
```

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

2.3 Error Recovery

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

```
%VMSINSTAL-E-INSFAIL, The installation of EPC07410I V7.4 has failed.
```

If the IVP fails, the error is displayed, immediately preceding these messages:

```
*
*           The Oracle Trace 7.4.1.0 IVP has failed.
*           The reason for the failure is listed above.
*
*           You should: 1. Correct the problem indicated
*                       2. Execute @$SYS$TEST:EPC$IVP.COM
*
*
*****
```

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

- The operating system version is incorrect.
- A prerequisite software version is incorrect.
- Quotas necessary for successful installation are insufficient.
- System parameter values for successful installation are insufficient.
- The OpenVMS help library is currently in use.

For descriptions of the error messages generated by these conditions, see the OpenVMS documentation on system messages, recovery procedures, and VMS software installation. If you are notified that any of these conditions exist, you should take appropriate action as described in the message. (You might need to change a system parameter or increase an authorized quota value.) For information on installation requirements, see Chapter 1.

After Installing Oracle Trace

After installing Oracle Trace, you need to perform the following tasks:

- Insert registered facility definitions into the Oracle Trace administration database.
- Edit the system startup and shutdown files.
- Set user account quotas.
- Modify system parameter settings.

For cluster installations, you must:

- Reinstall (using the OpenVMS INSTALL utility) the image SYSS\$SHARE:DCLTABLES.EXE on each node that will be running Oracle Trace 7.4.
- Execute the SYSS\$STARTUP:EPC\$STARTUP.COM startup file on each node that will be running Oracle Trace. Note that this is executed automatically as part of the IVP on the node you used for the installation.

This chapter also explains how to run the Installation Verification Procedure (IVP) independently after the software is installed.

3.1 Inserting Facility Definitions the First Time You Install Oracle Trace

If you are installing Oracle Trace for the first time, you must enter facility definitions into the Oracle Trace administration database using a command procedure called EPC\$INSERT.COM.

To insert the facility definitions, execute the command procedure, as follows:

```
$ @EPC$EXAMPLES:EPC$INSERT.COM
```

The command procedure prompts you to verify each facility definition before it inserts the definition into the administration data base.

If you want to add all of the facility definitions from the Oracle Trace facility library, SYSS\$LIBRARY:EPC\$FACILITY.TLB, into the administration data base and submit the command procedure as a batch job, use the following command:

```
$ @EPC$EXAMPLES:EPC$INSERT.COM ALL
```

In both cases, The EPC\$INSERT procedure checks for the existence of the Oracle Trace facility library, located in SYSS\$LIBRARY:EPC\$FACILITY.TLB.

The command procedure does not move any facility definitions which have events defined as both point and duration into the release 7.4 administration database.

Note

After you run the EPC\$INSERT.COM command file, you could have facility definitions for more than one version of a facility in the facility library. If this happens, you must take care to explicitly specify the correct facility version when you create a selection for a facility. If you do not supply a facility version on the CREATE SELECTION command, Oracle Trace uses the the facility definition with the most recent creation date as the default version.

Subsequent versions of the layered products automatically insert their facility definitions into the Oracle Trace administration database as part of their installation procedures. That is why you have to run just the EPC\$INSERT.COM command procedure when you are installing Oracle Trace for the first time.

3.2 Editing the System Files

You must edit the system startup and shutdown files to provide for automatic startup and shutdown of Oracle Trace when your system is rebooted.

Add the command line that starts Oracle Trace to the system startup file SYSS\$STARTUP:SYSTARTUP_VMS.COM. You must position this new command line *after* the line that activates the Oracle Rdb monitor process for the Rdb version being used by Oracle Trace. The nn in the name represents the 2 digits of the Rdb version number.

```
$! Start the Oracle Rdb monitor process
$ @SYSS$STARTUP:RMONSTARTnn.COM
$! Start Oracle Trace
$ @SYSS$STARTUP:EPC$STARTUP.COM
```

Add the Oracle Trace shutdown procedure to the system shutdown file SYSS\$MANAGER:SYSHUTDWN.COM. You must position this new command line *before* the line that stops the Oracle Rdb monitor process for the Rdb version being used by Oracle Trace. The nn in the name represents the 2 digits of the Rdb version number.

```
$! Shut down Oracle Trace and abort all active data collection
$ COLLECT STOP SYSTEM /ABORT
$! Wait for Registrar processing to complete
$ WAIT 00:00:30
$! Shut down the Oracle Rdb monitor process
$ @SYSS$MANAGER:RMONSTOPnn.COM
```

3.3 Modifying System Parameters

The installation for Oracle Trace requires that you raise the values of the CLISYMTBL and CTLPAGES system parameters. Once the installation is complete, lower these values to ensure efficient system performance. Table 1–3 contains the values for the parameters under normal operations.

If you typically format very large data collection files, you may need to increase the enqueue limit quota (ENQLM) on your process. If you do this, you must also raise the corresponding system parameters. If you increase your ENQLM, the lock ID table (LOCKIDTBL_MAX) must be set to a value at least as high as the ENQLM. Also, the resource hash table (RESHASHTBL) should be set to at least one-quarter the value of the lock ID table.

3.4 OpenVMS Cluster Considerations

Start the Oracle Trace Registrar process on each node for which you want data collection enabled. Issue the following command on each node:

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

You may need to use the OpenVMS Install utility to replace the DCLTABLES.EXE image on each node:

```
$ INSTALL REPLACE SYS$SHARE:DCLTABLES.EXE/OPEN/HEADER/SHARE
```

You must log out and back in again for the new DCL tables to take effect. If you do not, your process will not recognize the COLLECT command.

3.4.1 Dividing an OpenVMS Cluster

If you have Oracle Trace installed on an OpenVMS Cluster and then decide to reorganize the cluster into two or more clusters, you can preserve the facility definitions and selections stored in your administration database. Perform the following steps:

1. Extract EPC\$EXT_ADMIN_DB.DB_EXE and EPC\$INS_ADMIN_DB.DB_EXE from the EPC07410I074.A saveset.
2. Shut down the Registrar processes on each node in the cluster by entering the COLLECT STOP SYSTEM /ABORT command on each system.
3. Run the EPC\$EXT_ADMIN_DB.DB_EXE image on the original cluster. One EPC\$DEF binary file and seven TXT flat files will be placed in the EPC\$DATABASE_DIR directory.
4. Divide the cluster.
5. Reinstall Oracle Trace on the original and new clusters.
6. Shut down the Registrars on the nodes used to install Oracle Trace.
7. Run the EPC\$INS_ADMIN_DB.DB_EXE image on the original cluster.
8. Copy the EPC\$DEF and TXT files to the EPC\$DATABASE_DIR directory on the new clusters.
9. Run the EPC\$INS_ADMIN_DB.DB_EXE image on the new clusters.
10. Delete the EPC\$DEF and TXT files.
11. Restart the Registrars on all nodes (@SYS\$STARTUP:EPC\$STARTUP).

Note

You cannot simply back up the original database and then restore it on the new cluster. The Registrar would attempt to start collections on nodes that are no longer part of the original cluster.

3.5 User Account Requirements

To work with Oracle Trace, user accounts on your system must have certain privileges and quotas. The next two sections contain information on these requirements.

3.5.1 Privileges

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

3.5.2 User Account Quotas

You must make sure that the appropriate user accounts have sufficient quotas to be able to use Oracle Trace. If you typically format very large collection files (over 50,000 blocks) and generate reports based on large formatted databases, you can improve performance by increasing several of your account quotas. Table 3–1 summarizes the required and optional user account quotas.

Table 3–1 User Account Quotas for Using Oracle Trace

Account Quota	Normal Use	Formatting and Reporting on Large Files
ASTLM	24	
BIOLM	20	
BYTLM	20,480	34,810
DIOLM	20	
ENQLM	1,800	10,000
FILLM	50	
PGFLQUO	20,000	75,000
PRCLM	1	
WSEXTENT	2048	
WSQUOTA	1024	

User account quotas are stored in the file SYSUAF.DAT. Use the OpenVMS Authorize Utility to verify and change user account quotas.

```
$ RUN SYS$SYSTEM:AUTHORIZE
UAF>
```

At the UAF> prompt, use the SHOW command with an account name to check a particular account. For example:

```
UAF> SHOW SMITH
```

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

```
MODIFY account-name /quota-name=n
```

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

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

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

3.6 Testing Oracle Trace

If you did not choose to run the IVP as part of the installation procedure, you can run it interactively with the following command:

```
$ @SYS$TEST:EPC$IVP
```

Oracle recommends that you run the IVP on every node where you intend to use the Oracle Trace.

3.7 Enhancing Oracle Trace Performance

After you install Oracle Trace, you might want to adjust your system to enhance performance or lower the use of some system resources. One recommendation is to increase process working set parameters which will speed up Oracle Trace formatting operations and report generations.

After you perform a number of collections on your system, you may wish to create a new version of the history database and purge (or offload) the old one. If you want to have this procedure performed automatically, add the Oracle Trace SET HISTORY/NEW_FILE command to your site-specific startup procedure. This command closes the old database and creates a new one. If you choose to do this, put the command before the execution of EPC\$STARTUP so that no history data is lost. For example:

```
$ COLLECT SET HISTORY/NEW_FILE
$ PURGE/NOLOG/NOCONFIRM/KEEP=2 EPC$HISTORY_DB
$ @SYS$STARTUP:EPC$STARTUP
```

See the System Management chapter in the *Oracle Trace Collector User's Guide* for more information on managing Oracle Trace usage.

3.8 Deinstalling Oracle Trace

A deinstallation procedure is provided in SYSS\$UPDATE:

```
$ @SYS$UPDATE:EPC$DEINSTALL.COM
```

Prior to removing Oracle Trace from your system, you may wish to move the facility definitions stored in the current administration database into the Oracle Trace facility library (EPC\$FACILITY.TLB) located in SYSS\$SHARE. This text library is referenced during reinstallations of Oracle Trace so that you do not have to reinsert the definitions for layered products or for your own applications.

To list the facility definitions that are already stored in the facility library (and therefore do not need to be moved), issue the following command:

```
$ LIBRARY /LIST /FULL SYS$SHARE:EPC$FACILITY.TLB
```

To list the facility definitions that are stored in the Oracle Trace administration database, issue the following command:

```
$ COLLECT SHOW DEFINITION /FORMAT=NAMES_ONLY
```

Use the EXTRACT DEFINITION command to extract a facility definition from the Oracle Trace administration database. Then use the INSERT DEFINITION/LIBRARY command to insert the definition into the facility library. For example:

```
$ COLLECT EXTRACT DEFINITION ATM-SAMPLE ATM_FAC_DEF.EPC$DEF -  
_ $ /VERSION="V7.2"  
$ COLLECT INSERT DEFINITION ATM_FAC_DEF.EPC$DEF -  
_ $ /LIBRARY /REPLACE
```

Sample Installation

This appendix contains sample installations of the Oracle Trace. This sample was run on a system that did not have a previous version of Oracle Trace installed.

The installation procedures vary slightly depending on the Oracle Trace option you are installing.

A.1 Example Installation of the Full Oracle Trace Option

```
$ @sys$update:vmsinstal
```

```
OpenVMS Software Product Installation Procedure V8.4-2L3
```

```
It is 6-AUG-2024 at 07:01.
```

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

```
%VMSINSTAL-W-NOTSYSTEM, You are not logged in to the SYSTEM account.
```

```
%VMSINSTAL-W-ACTIVE, The following processes are still active:
```

```
TCPIP$FTP_1
TCPIP$IPSEC_1
TCPIP$S_BG28179
SERVER_0115
```

```
* Do you want to continue anyway [NO]? Y
```

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

```
* Where will the distribution volumes be mounted: DISK$USERS:[KITS.TRACE_V7410_KIT]
```

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

```
* Products: EPC07410I074
```

```
* Enter installation options you wish to use (none):
```

```
The following products will be processed:
```

```
EPC07410I V7.4
```

```
Beginning installation of EPC07410I V7.4 at 07:01
```

```
No signature manifests found for EPC07410I074
```

```
* Do you want to install this product [NO]? Y
```

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

```
%VMSINSTAL-I-REMOVED, Product's release notes have been moved to SYS$HELP.
```

```
Installation procedures for: Oracle Trace V7.4-10
```

```
Be sure you have read the section entitled "Installation
Procedure Requirements" in the Oracle Trace installation
guide before continuing with the installation.
```

```
Checking system requirements ...
```

```
Your current process level version of Oracle Rdb is
```

```
Current SYSTEM Oracle Rdb environment is version V7.4-130 (MULTIVERSION)
```

The following versions of Oracle Rdb are installed on your system

7.2	(V7.2-57)
7.3	(V7.3-40)
7.4	(V7.4-13)

You have multiple versions of Oracle Rdb on your system.

The default version of Oracle Rdb to be used for this installation is: 7.4

The corresponding Oracle Rdb monitor must be running.

The selected Oracle Rdb version will be used to access the Oracle Trace databases (ADMIN and HISTORY) during the IVP

* Do you want to use Oracle Rdb version 7.4 [YES]?

If the Oracle Rdb monitor (RDMS_MONITORxx) is not running the install will fail accessing the databases. If you want to use a specific version and the corresponding Oracle Rdb monitor is not running, you may abort the installation, start the monitor (@SYS\$STARTUP:RMONSTARTxx.COM) and restart the installation.

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

Current PROCESS Oracle Rdb environment is version V7.4-130 (MULTIVERSION)
Current PROCESS SQL environment is version V7.4-130 (MULTIVERSION)
Current PROCESS Rdb/Dispatch environment is version V7.4-130 (MULTIVERSION)

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

The detached process EPC\$REGISTRAR will be started with 7.4, as it's default version. If you wish to at this time you may change this to be the default system version of Oracle Rdb as well.

* Specify the device specification for EPC\$ROOT [SYS\$SYSDEVICE]:
%EPC07410I-I-LIBRARY, The logical name EPC\$ROOT is defined as SYS\$SYSDEVICE:[EPC.]

* A previous HISTORY database has been found would you like to reuse it [YES]?

* A previous ADMIN database has been found would you like to reuse it [YES]?

By adding PUBLIC access to the Oracle Trace databases you are allowing all users on your system access to Oracle Trace. If you want to allow only certain users access to Oracle Trace, enter No at the prompts and add the users directly via the Oracle Trace SET ACCESS command after the installation.

* Do you want to add PUBLIC write access to the ADMINISTRATION database [YES]?

* Do you want to add PUBLIC write access to the HISTORY database [YES]?

An EPC\$SERVER account has been found. This account will continue to be used.

```

*****

%VMSINSTAL-I-SYSDIR, This product creates system disk directory VMI$ROOT:[SYSTEST.EPC].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory SYS$SYSDEVICE:[EPC.] [HOMEDIR].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory SYS$SYSDEVICE:[EPC.] [DATABASES].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory VMI$ROOT:[SYSHLP.EXAMPLES.EPC].

The sample data file used in the Oracle Trace Monitor User Guide will
be copied to EPC$EXAMPLES:DEMO_DATA.DAT. This file is needed to
run the Monitor portion of the IVP.

You may delete this file after the installation has completed.

* Do you want to run the IVP after the installation [YES]?
* Do you want to purge files replaced by this installation [YES]?

Beginning installation ... 6-AUG-2024 07:01:53.21

If this is an upgrade of Oracle Trace an attempt will be made to update the
existing ADMIN and HISTORY database metadata. If the existing databases are
compatible with this version, no changes will be needed.
If no errors are encountered, there will be no more questions.
%VMSINSTAL-I-RESTORE, Restoring product save set B ...

Updating the History database...

Updating the Administration database...

There are no more questions. The remainder of the installation
takes approximately 5 minutes.

*****

The following command line must be added to the system startup
command file SYS$MANAGER:SYSTARTUP_VMS.COM for all nodes that will
be running Oracle Trace. Add this command line after starting Rdb.

    $ @SYS$STARTUP:EPC$STARTUP.COM

The following command line must be added to the system shutdown
command file SYS$MANAGER:SYSHUTDOWN.COM for all nodes that will
be running Oracle Trace. Add this command line before shutting
down the Rdb monitor.

    $ COLLECT STOP SYSTEM/ABORT

*****

*****

All applications instrumented with Oracle Trace must be
restarted in order to be able to be part of an active
collection.

*****

*****

The Oracle Trace Installation Verification Procedure (IVP) has
been provided in SYS$TEST. It is invoked using the command:

    $ @SYS$TEST:EPC$IVP.COM

*****

*****

One or more of the following obsolete files will be deleted
from the EPC$EXAMPLES directory:

```

```
DBMSV41_FAC_DEF.COM
DBMSV42_FAC_DEF.COM
RDBV31_FAC_DEF.COM
ACMSV31_FAC_DEF.EPC$DEF
DBMSV41_FAC_DEF.EPC$DEF
DBMSV42_FAC_DEF.EPC$DEF
RDBV31AB_FAC_DEF.EPC$DEF
RDBV40_FAC_DEF.EPC$DEF
EPC$ATM-PASCAL.DAT
```

An Oracle Trace Post Installation Procedure has been provided in EPC\$EXAMPLES. The purpose of this procedure is to insert ACMS, DBMS, DECforms, and Rdb facility definitions into the Oracle Trace administration database on your system.

It is invoked using the command:

```
$ @EPC$EXAMPLES:EPC$INSERT.COM
```

The Oracle Trace sample ATM application has been provided in EPC\$EXAMPLES.

The following product has been selected:

```
ORCL I64VMS TRACE V7.4-10      Transition (registration)
```

The following product will be removed from destination:

```
ORCL I64VMS TRACE V7.4-10      DISK$CLYPPR84_2:[VMS$COMMON.]
```

Portion done: 0%...100%

The following product has been removed:

```
ORCL I64VMS TRACE V7.4-10      Transition (registration)
```

The following product has been selected:

```
ORCL I64VMS TRACE V7.4-10      Transition (registration)
```

The following product will be registered:

```
ORCL I64VMS TRACE V7.4-10      DISK$CLYPPR84_2:[VMS$COMMON.]
```

File lookup pass starting ...

Portion done: 0%...100%

File lookup pass completed search for all files listed in the product's PDF

Total files searched: 0 Files present: 0 Files absent: 0

The following product has been registered:

```
ORCL I64VMS TRACE V7.4-10      Transition (registration)
```

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

%RUN-S-PROC_ID, identification of created process is 000006E7

\$

\$

*

* Executing the Oracle Trace V7.4-10 IVP

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Displaying Oracle Trace HELP from DCL...

ORACLE_TRACE

Oracle Trace is a layered product that collects and reports on event-based data gathered from layered products and applications that contain Oracle Trace service routine calls. Oracle Trace operates with minimal performance impact on the system and thus can be used in both production and development environments.

Additional HELP is provided within the Oracle Trace command environment and can be viewed with the command:

\$ COLLECT HELP

Additional information available:

Interface	Release_notes	Error_messages	Sample_application	Logical_names
IVP	Deinstallation			

Displaying HELP using the Oracle Trace HELP command...

Information available:

@(Execute_Procedure)	CANCEL_COLLECTION	Command_Syntax	CREATE
DELETE	Error_Messages_and_Recovery	EXIT	EXTRACT_DEFINITION
FORMAT	HELP	INSERT_DEFINITION	MONITOR
SCHEDULE_COLLECTION	Service_Routines	SET	SHOW
STOP_SYSTEM			SPAWN

Creating a facility definition...

%EPC-S-FACCRE, Facility definition EPC\$IVP_FAC V1.0 was created

Showing the facility definition...

6-AUG-2024 07:02 Facility Definition Information Page 1
Full Report Oracle Trace V7.4-10

Facility: EPC\$IVP_FAC
Number: 750
Version: V1.0 DEFAULT
Creation Date: 6-AUG-2024 07:02
Created By: KITINSTALLER

Events:

Event Name	Event ID	Report Header
FIRST_EVENT	1	FIRST_EVENT
SECOND_EVENT	2	SECOND_EVENT

Items:

Item Name	Item ID	Datatype	Max. Size	Usage Type	Item Report Header	Report Width	Char	Rad
BIO	101	LONGWORD	4	COUNTER	Buffered I/O	11	PRT	DEC
DIO	102	LONGWORD	4	COUNTER	Direct I/O	11	PRT	DEC
PAGEFAULTS	103	LONGWORD	4	COUNTER	Pagefaults	11	PRT	DEC
PAGEFAULT_IO	104	LONGWORD	4	COUNTER	Pagefault I/Os	11	PRT	DEC
CPU	105	LONGWORD	4	COUNTER	CPU Time .01sec	11	PRT	DEC
CURRENT_Prio	106	WORD	2	LEVEL	Current Prio	6	PRT	DEC
VIRTUAL_SIZE	107	LONGWORD	4	LEVEL	Virtual Size	11	PRT	DEC
WS_SIZE	108	LONGWORD	4	LEVEL	Working Set Siz	11	PRT	DEC
WS_PRIVATE	109	LONGWORD	4	LEVEL	Private WS	11	PRT	DEC
WS_GLOBAL	110	LONGWORD	4	LEVEL	Global WS	11	PRT	DEC

Item Groups:

Item Group Name: RESOURCE_ITEMS

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Item Name
-----
BIO
DIO
PAGEFAULTS
PAGEFAULT_IO
CPU
CURRENT_PRIO
VIRTUAL_SIZE
WS_SIZE
WS_PRIVATE
WS_GLOBAL

```

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Class: ALL                                DEFAULT

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Event Name: FIRST_EVENT

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Record Type	Item Name	Position
START EVENT	BIO	x
	DIO	x
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```

6-AUG-2024 07:02
Full Report

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Facility Definition Information

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Page 2
Oracle Trace V7.4-10

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Record Type	Item Name	Position
	PAGEFAULTS	x
	PAGEFAULT_IO	x
	CPU	x
	CURRENT_PRIO	x
	VIRTUAL_SIZE	x
	WS_SIZE	x
	WS_PRIVATE	x
	WS_GLOBAL	x
END EVENT	BIO	x
	DIO	x
	PAGEFAULTS	x
	PAGEFAULT_IO	x
	CPU	x
	CURRENT_PRIO	x
	VIRTUAL_SIZE	x
	WS_SIZE	x
	WS_PRIVATE	x
	WS_GLOBAL	x

```

Event Name: SECOND_EVENT

```

Record Type	Item Name	Position
START EVENT	BIO	x
	DIO	x
	PAGEFAULTS	x
	PAGEFAULT_IO	x
	CPU	x
	CURRENT_PRIO	x
	VIRTUAL_SIZE	x
	WS_SIZE	x
	WS_PRIVATE	x
	WS_GLOBAL	x

```

END EVENT      BIO          x
               DIO          x
               PAGEFAULTS   x
               PAGEFAULT_IO x
               CPU          x
               CURRENT_Prio  x
               VIRTUAL_SIZE  x
               WS_SIZE       x
               WS_PRIVATE    x
               WS_GLOBAL     x

```

Creating the facility selection...

%EPC-S-SELCRE, Selection EPC\$IVP_SELECTION was created

Schedule a collection...

%EPC-S-SCHED, Data collection EPC\$IVP_COLLECTION is scheduled

Showing the EPC\$IVP_COLLECTION collection was scheduled...

```

6-AUG-2024 07:02      Scheduled Collections      Page 1
Brief Report                                         Oracle Trace V7.4-10

```

Collections scheduled for node CLYPPR

Collection Name	Selection Name	Start	End
-> EPC\$IVP_COLLECTION	EPC\$IVP_SELECTION	6-AUG-2024 07:02	6-AUG-2024 07:12

Running the IVP test program...

Canceling data collection...

%EPC-S-SCHED_ABING, Data collection EPC\$IVP_COLLECTION has been set to aborting

Showing the EPC\$IVP_COLLECTION collection was canceled...

```

6-AUG-2024 07:04      Scheduled Collections      Page 1
Brief Report                                         Oracle Trace V7.4-10

```

%EPC-I-SCHED_NOMSGFND, No Collections Found

Showing any errors that may have occurred during collection...

```

6-AUG-2024 07:04      Data Collection History      Page 1
Oracle Trace error history for cluster              Oracle Trace V7.4-10

```

For database: EPC\$HISTORY_DB

%EPC-I-HST_NOMSGFND, No History Messages Found

Delete the facility selection...

%EPC-S-SELDEL_DELETED, Selection EPC\$IVP_SELECTION was deleted

Delete the facility definition...

%EPC-S-FACDEL_DELETED, Facility definition EPC\$IVP_FAC V1.0 was deleted

Showing that the data collection file was created...

Directory SYS\$COMMON:[SYSTEST.EPC]

```

EPC$DCF.DAT;2          320   6-AUG-2024 07:02:45.70
EPC$DCF.DAT;1          320  28-SEP-2004 14:48:57.00

```

Total of 2 files, 640 blocks.

Formatting the data collection file...

%EPC-I-FMT_RDB_CREATE, Creating database EPC\$IVP_DIR:EPC\$IVP_DB

%EPC-S-FMT_RDB_SUCCESS, Successfully created database

%EPC-I-FMT_DCF_BEGIN, Formatting data file EPC\$IVP_DIR:EPC\$DCF.DAT

%EPC-S-FMT_DCF_SUCCESS, Successfully formatted data file EPC\$IVP_DIR:EPC\$DCF.DAT

%EPC-S-FMT_SUCCESS, Formatting successfully completed

Generating a Detail Report to epc\$ivp_dir:epc\$ivp_detail.txt...

%EPC-S-RPCL_SUCCESS, Report successfully completed

Generating a Frequency Report...

6-AUG-2024 07:04 Oracle Trace V7.4-10 IVP Frequency Report Page 1
Selection: EPC\$IVP_SELECTION Oracle Trace V7.4-10

Event: FIRST_EVENT In Facility: EPC\$IVP_FAC Version: V1.0

Time Period Occurrences
6-AUG-2024 07:03:00 50

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6-AUG-2024 07:04 Oracle Trace V7.4-10 IVP Frequency Report Page 2
Selection: EPC\$IVP_SELECTION Oracle Trace V7.4-10

Event: SECOND_EVENT In Facility: EPC\$IVP_FAC Version: V1.0

Time Period Occurrences
6-AUG-2024 07:03:00 50

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6-AUG-2024 07:04 Index Page 3
Selection: EPC\$IVP_SELECTION Oracle Trace V7.4-10

Report Index

Facility Name	Event Name	Join item	Page
EPC\$IVP_FAC	FIRST_EVENT		1
EPC\$IVP_FAC	SECOND_EVENT		2

%EPC-S-RPCL_SUCCESS, Report successfully completed

***** End of Frequency Report *****

Generating a Summary Report...

6-AUG-2024 07:04 Oracle Trace V7.4-10 IVP Summary Report Page 1
Selection: EPC\$IVP_SELECTION Oracle Trace V7.4-10

Event: FIRST_EVENT In Facility: EPC\$IVP_FAC Version: V1.0

	Elapsed	Buffered I/O	CPU Time .01sec	Current Prio	Direct I/O	Pagefaults
Minimum	0.50	0	0	5	0	0
Maximum	0.51	0	0	6	0	1
Mean	0.500	0.00	0.000	5.98	0.00	0.02
Std Dev	0.001	0.00	0.000	0.14	0.00	0.14
95 Prct	0.502	0.00	0.000	6.25	0.00	0.29
Total	25.00	0	0	299	0	1
Count	50					

	Pagefault I/Os	Virtual Size	Global WS	Private WS	Working Set Siz
Minimum	0	174463	100	398	16253
Maximum	1	174463	100	398	16253
Mean	0.02	174463.00	100.00	398.00	16253.00
Std Dev	0.14	0.00	0.00	0.00	0.00
95 Prct	0.29	174463.00	100.00	398.00	16253.00
Total	1	8723150	5000	19900	812650
Count	50				

%EPC-I-RPQU_BAD_95, 95 Prct for events with counts under 1000 are less precise

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Event: SECOND_EVENT In Facility: EPC\$IVP_FAC Version: V1.0

	Elapsed	Buffered I/O	CPU Time .01sec	Current Prio	Direct I/O	Pagefaults
Minimum	0.50	0	0	6	0	0
Maximum	0.50	0	0	6	0	0
Mean	0.500	0.00	0.000	6.00	0.00	0.00
Std Dev	0.000	0.00	0.000	0.00	0.00	0.00
95 Prct	0.500	0.00	0.000	6.00	0.00	0.00
Total	25.00	0	0	300	0	0
Count	50					

	Pagefault I/Os	Virtual Size	Global WS	Private WS	Working Set Siz
Minimum	0	174463	100	398	16253
Maximum	0	174463	100	398	16253
Mean	0.00	174463.00	100.00	398.00	16253.00
Std Dev	0.00	0.00	0.00	0.00	0.00
95 Prct	0.00	174463.00	100.00	398.00	16253.00
Total	0	8723150	5000	19900	812650
Count	50				

%EPC-I-RPQU_BAD_95, 95 Prct for events with counts under 1000 are less precise

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Report Index

Facility Name	Event Name	Join item	Page
EPC\$IVP_FAC	FIRST_EVENT		1
EPC\$IVP_FAC	SECOND_EVENT		2

%EPC-S-RPCL_SUCCESS, Report successfully completed

***** End of Summary Report *****

Deleting the formatted database...

```
%DELETE-I-FILDEL, SYS$COMMON:[SYSTEST.EPC]EPC$IVP_DB.RDB;1 deleted (20221 blocks)
%DELETE-I-FILDEL, SYS$COMMON:[SYSTEST.EPC]EPC$IVP_DB.SNP;1 deleted (73 blocks)
%DELETE-I-TOTAL, 2 files deleted (20294 blocks)
%DELETE-I-FILDEL, SYS$COMMON:[SYSTEST.EPC]EPC$DCF.DAT;2 deleted (365 blocks)
%DELETE-I-FILDEL, SYS$COMMON:[SYSTEST.EPC]EPC$DCF.DAT;1 deleted (365 blocks)
%DELETE-W-SEARCHFAIL, error searching for SYS$COMMON:[SYSTEST.EPC]EPC$IVP_DB.*;
-RMS-E-FNF, file not found
%DELETE-I-TOTAL, 2 files deleted (730 blocks)
```

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*           Oracle Trace V7.4-10 IVP Completed Successfully
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*****
```

Installation of EPC07410I V7.4 completed at 07:04

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

Creating installation data file: VMI\$ROOT:[SYSUPD]EPC07410I074.VMI_DATA