

# **Oracle® Enterprise Manager**

Grid Control Quick Installation Guide for HP-UX PA-RISC (64-bit)

10g Release 2 (10.2)

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**ORACLE®**

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This guide describes how to quickly install Oracle Enterprise Manager Grid Control on HP-UX PA-RISC (64-bit) systems. It includes information about the following:

- [Reviewing Information About This Guide](#)
- [System Requirements](#)
- [Mounting the Product Disk](#)
- [Installing Oracle Enterprise Manager Grid Control](#)
- [Other Installation or Upgrade Options](#)
- [Documentation Accessibility](#)

## **Reviewing Information About This Guide**

This guide describes how to perform a basic installation of Oracle Enterprise Manager Grid Control into a new database or into an existing database.

### **Tasks Described in This Guide**

The procedures in this guide describe how to:

- Configure your system to support the following installation types:

- "Enterprise Manager Grid Control Using a New Database" installation type, which installs the Management Service, central Management Agent, and Management Repository database on a single host
- "Enterprise Manager Grid Control Using an Existing Database" installation type, which installs the Management Service and central Management Agent on one host, and installs the Management Repository in an existing, qualified database

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**Note:** For performance reasons, Oracle recommends that you do not install both the Management Service and Management Repository on the same host. Refer to "[Hardware Requirements](#)" for more information.

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- Add a system to the grid, which installs the central Management Agent on a target host
- Mount the product disk
- Install Grid Control using Oracle Universal Installer's interactive mode

- Find more information about other installation scenarios

## **Tasks Not Described in This Guide**

This guide covers only the basic installation type described above and does *not* describe how to complete the following tasks:

- Install Grid Control in any non-interactive mode
- Configure your system to support installation of an additional Management Service or Management Agent
- Upgrade an existing installation to the latest version
- Install Grid Control on Real Application Clusters
- Troubleshoot your installation session
- Configure post-installation settings
- Use Enterprise Manager Grid Control
- Require secure communications between all Management Agents and the secure Management Service

## Where to Get Additional Installation Information

For more information about installing Oracle Enterprise Manager Grid Control, including tasks not described in this manual, refer to *Oracle Enterprise Manager Installation and Basic Configuration*.

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**Note:** The entire documentation library for Enterprise Manager can be found on the Oracle Technology Network:

<http://www.oracle.com/technology/documentation/oem.html>

This site may contain later versions of all books, including *Oracle Enterprise Manager Installation and Basic Configuration*. The installation procedures documented in this guide apply to all platforms. For platform specific information, refer to the *Oracle Enterprise Manager Quick Installation Guide* for the specific platform.

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## System Requirements

The system or systems must meet the minimum hardware and software requirements given in the following sections.

Even though Oracle Universal Installer runs prerequisite checks on your system to verify that it meets the listed requirements, to make sure that prerequisite checks do not fail, you should verify the requirements before running Oracle Universal Installer.

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**Note:** Only requirements for the Management Service and/or Management Repository host(s) are given here. Management Agent and other requirements can be found in *Oracle Enterprise Manager Installation and Basic Configuration*.

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## Hardware Requirements

The system or systems must meet the minimum hardware requirements for hard disk space, available memory, processor speed, and operating memory.

**Hard Disk Space Requirements** The hard disk requirements are:

- 9 GB for the "Enterprise Manager Grid Control Using a New Database" installation type
- 5 GB for the "Enterprise Manager Grid Control Using an Existing Database" installation type

**Temporary Disk Space Requirements** To determine the amount of free disk space available in the `/tmp` directory, enter the following command:

```
# bdf /tmp
```

If there is less than 1.2 GB of disk space available in the `/tmp` directory, then complete one of the following steps:

- Delete unnecessary files from the `/tmp` directory.
- Set the `TEMP` and `TMPDIR` environment variables to a writable directory with at least 1.2 GB of available disk space.
- Extend the file system that contains the `/tmp` directory. If required, contact your system administrator for information about extending file systems.

For Agent Push Deployment, make sure that `/tmp` has 1.2 GB of disk space available on the target machine.



**Available Memory Requirements** The available operating memory requirements for installation are:

- To install "Enterprise Manager Grid Control Using a New Database," a minimum of 1 GB of available operating memory for the host
- To install "Enterprise Manager Grid Control Using an Existing Database," a minimum of 1 GB of available operating memory for the node

**Operating Requirements** The hardware requirements to run Enterprise Manager are:

- Minimum of 2 GB of free physical memory for the host running the Management Service
- Minimum of 2 GB of free physical memory for the Management Repository node

Refer to *Oracle Enterprise Manager Grid Control Installation and Basic Configuration* for recommended CPU and memory allocation for the Management Service and Management Repository for Enterprise Manager deployments of various size.

## Software Requirements

The system or systems must meet the minimum software requirements for operating system, packages, and kernel parameters.

**Operating System Requirements** The operating system version must be HP-UX 11i V1 (11.11) PA-RISC or HP-UX 11i V2 (11.23).

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### Notes:

- Refer to Oracle*Metalink's* "Certify and Availability" page for additional information about these platforms.
- To determine which version of HP-UX is installed, enter the following command:

```
# uname -a  
HP-UX hostname B.11.11 U 9000/80 109444686 unlimited  
-user license
```

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### Packages Requirements

The required packages for the supported HP-UX versions are listed below:

## HP-UX 11i V1 (11.1)

- For installation on HP-UX 11.11, the following packages or later versions are required:
  - HP-UX 11i June 2003 Consolidated Quality Patch Bundle
  - Jun03GQPK11i\_Aux\_Patch
- Make sure that Motif 2.1 Development Environment (X11MotifDevKit.MOTIF21-PRG)B.11.11.01 is installed

Either install this package or create symbolic links as follows:

1. Log in as root.
2. Change directory to `/usr/lib` as follows:

```
# cd /usr/lib
```

3. Create the required links:

```
# ln -s libX11.3 libX11.sl
# ln -s libXIE.2 libXIE.sl
# ln -s libXext.3 libXext.sl
# ln -s libXhp11.3 libXhp11.sl
# ln -s libXi.3 libXi.sl
# ln -s libXm.4 libXm.sl
# ln -s libXp.2 libXp.sl
```

```
# ln -s libXt.3 libXt.sl
# ln -s libXtst.2 libXtst.sl
```

- The following patches or later are required:
  - PHCO\_28123, cumulative SAM patch
  - PHKL\_29198, Psets Enablement Patch
  - PHNE\_28476, Cumulative STREAMS Patch
  - PHNE\_28923, LAN product cumulative patch
  - PHSS\_28871, ld(1) and linker tools cumulative patch
  - PHSS\_28880, HP aC++ -AA runtime libraries (aCC A.03.50)
  - PHCO\_26331, mountall cumulative patch
  - PHCO\_29109, Pthread enhancement and fixes
  - PHKL\_25468, eventport (/dev/poll) pseudo driver
  - PHKL\_25842, Thread Abort
  - PHKL\_25993, thread nostop for NFS, rlimit, Ufalloc fix
  - PHKL\_25994, Thread NOSTOP, Psets Enablement, Ufalloc
  - PHKL\_25995, eventport syscalls; socket close(2); ufalloc

- PHKL\_26468, Shared mutex synchronization support patch
- PHKL\_28489, copyin EFAULT, LDCD access type
- To determine whether a bundle, a product, or fileset is installed, enter a command similar to the following, where "level" refers to the bundle, patch or fileset.  

```
# /usr/sbin/swlist -l level |more
```

### **HP-UX 11i V2 (11.23)**

- For installation on HP-UX 11.23, the following packages or later versions are required:
  - Patch Bundle for HP-UX 11i V2 (B.11.23), September 2004
  - BUNDLE11i, Revision B.11.23.0409.3
- The following patches or later are required:
  - PHSS\_31849:linker + fdp cumulative patch
  - PHSS\_31852: aC++ Runtime (PA A.03.61)

### **Kernel Parameters Requirements**

Verify that the kernel parameters shown in the following table are set either to the formula shown, or to values greater than or equal to the recommended value shown. The procedure following the table describes how to verify and set the values.

<b>Parameter</b>	<b>Recommended Formula or Value</b>
ksi_alloc_max	32768
max_thread_proc	256
maxdsiz	1073741824
maxdsiz_64bit	2147483648
maxssiz	134217728
maxssiz_64bit	1073741824
maxswapchunks	16384
maxuprc	3687
msgmap	4098
msgmni	4096
msgseg	32767
msgtql	4096

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<b>Parameter</b>	<b>Recommended Formula or Value</b>
ncsize	34816
nfile	63488
nflocks	4096
ninode	34816
nkthread	7184
nproc	4096
semmap	4098
semmni	4096
semmns	8192
semmnu	4092
semvmx	32767
shmmax	1073741824
shmmni	512
shmseg	120
vps_ceiling	64

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**Notes:**

- The following parameters are obsolete in HP-UX 11.23:
    - maxswapchunks
    - semmap
  - If the current value of any parameter is higher than the value listed in this table, do not change the value for that parameter.
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To view the current value or formula of these kernel parameters, and to change them if necessary, follow these steps:

1. Set the DISPLAY environment variable to specify the display of the local system. This is an optional step.

Bourne, Bash or Korn shell:

```
$ DISPLAY=localhost:0.0; export DISPLAY
```

C Shell

```
$ setenv DISPLAY localhost:0.0
```



2. Start System Administration Manager (SAM)  
`# /usr/sbin/sam`
3. Choose the Kernel Configuration area and the Configurable Parameters area.
4. Check the value or formula specified for each of these parameters and if necessary, modify that value or formula. Refer to the SAM Online Help for more details.
5. Exit from SAM.
6. If you have modified the value for any of the parameters, you must restart your system.  
`# /sbin/shutdown -r now`
7. After you have restarted the system, log in and switch to the `root` user if necessary.

## Mounting the Product Disk

On most HP-UX PA-RISC systems, the product disk gets mounted automatically when you insert it into the drive. If the disk does not get automatically mounted, follow these steps to mount it manually:

1. Switch user to the root user:

```
$su - root
```

2. If necessary, enter a command similar to the following to eject the mounted disk, then remove it from the drive:

```
# /usr/sbin/umount/SD_DVD
```

3. Insert the disk into the drive.

4. Enter a command similar to the following:

```
# /usr/sbin/mount -F cdfs -o  
rr/dev/dsk/cxyz/SD_DVD
```

In this example, /SD\_DVD is the disk mount point directory and /dev/dsk/cxyz is the device name for the disk device. For example, /dev/dsk/c0t2d0.

5. If the Oracle Universal Installer prompts you for the location, enter the disk mount point directory path. For example:

```
/SD_DVD
```

## Installing Oracle Enterprise Manager Grid Control

Once you have configured your system to meet hardware and software requirements, start Oracle Universal Installer (OUI) and install Grid Control as follows:

1. Start OUI by executing the following commands:
  1. Navigate to the home directory by entering the following command:  
`cd <enter>`
  2. Enter the following command:  
`<mounted location>/runInstaller`

For example: Enter the command as follows:

```
/SD_DVD/runInstaller
```

Alternately, you can change directory to the Parent Directory (the root directory where you will install the Oracle home) and specify the full path to the `runInstaller` script.

2. The following table describes the recommended action for each OUI screen for the first two installation types.

If you need more assistance, click **Help** on that screen. If you have trouble with the installation, check out the "Troubleshooting" chapter of *Oracle Enterprise Manager Grid Control Installation and Basic Configuration*.

<b>Installation Screen</b>	<b>Recommended Action</b>
Specify Installation Type	Select one of the installation types provided. The complete installation type is chosen by default.
Specify Installation Location	Specify the "parent" directory location for the installation. All Oracle homes created during installation will be placed as subdirectories under the parent directory.
Language Selection	Select the languages to run Grid Control in. The language you specify here is not the language of the installation session.
Specify Inventory Directory and Credentials	Appears only during the first installation of Oracle products on a system. Specify the full path of the Oracle Inventory directory. Make sure to select the appropriate operating group.

<b>Installation Screen</b>	<b>Recommended Action</b>
Product-Specific Prerequisite Checks	<p>Verify that all prerequisite checks succeed.</p> <p>OUI checks the system to verify that it is configured correctly to support your Oracle software. If you have met all hardware and software requirements in this guide, all of the checks should pass.</p> <p>If a check fails, review the cause of failure, rectify the problem, and retry the check. You can also choose to manually verify failed checks if you are satisfied that your system meets the requirements.</p>
Specify Configuration	<p>Appears only for the "Enterprise Manager Grid Control Using a New Database" installation type.</p> <p>Specify the name of the database you want to create, as well as the location to store the Management Repository files. Choose a file location outside of the Oracle home.</p> <p>Select the OSDBA and OSOPER groups that you are a member of. These memberships are required to grant the SYSDBA and SYSOPER privileges required to create the new database.</p>

<b>Installation Screen</b>	<b>Recommended Action</b>
Specify Repository Database Configuration	<p>Appears only for the "Enterprise Manager Grid Control Using an Existing Database" installation type.</p> <p>Specify the database connection details for your existing, qualified database, as well as the locations for the new Management Repository tablespaces.</p>
Specify Optional Configuration	<p>All parameters can be configured through Grid Control after installation.</p> <p>If you want, set the parameters for email notification, Oracle<i>MetaLink</i> credentials, and proxy configuration settings.</p>
Specify Security Options	<p>Appears only for the "Enterprise Manager Grid Control Using a New Database" installation type.</p> <p>Specify password used to secure the Management Service, as well as passwords to secure the Management Repository Database.</p>

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<b>Installation Screen</b>	<b>Recommended Action</b>
Specify Passwords	Appears only for the "Enterprise Manager Grid Control Using an Existing Database" installation type.  Specify the password used to secure the Management Service, as well as the SYSMAN password.
Summary	Review the information displayed here, then click <b>Install</b> .
Install	This screen displays status information while the product is being installed.



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<b>Installation Screen</b>	<b>Recommended Action</b>
Execute Configuration Scripts	When prompted, read the instructions and run the scripts listed here. You must run the scripts as <code>root</code> from a terminal window.
Configuration Assistants	Displays status information for configuration assistants
End of Installation	Contains important information about your installation, including the URLs configured for your applications. Make a note of these URLs.  The port numbers used in these URLs are recorded in the following file:  <code>\$ORACLE_ HOME/install/portlist.ini</code>

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## Other Installation or Upgrade Options

In addition to performing a complete Grid Control installation, either using the embedded database or an existing, qualified one, you can perform the following other installation or upgrade operations:

- Install an additional Management Service.
- Install Management Agents using the Agent Deployment application. This application is part of the Grid Control installation, and can be used to "push" Management Agents from a central location to one or more target hosts in a single operation. Before launching a deployment operation using this method, you must set up SSH connectivity between the Management Service host and all target hosts. To do so, execute the script found at:

```
<OMS ORACLEHOME>/sysman/prov/resources/scripts/  
sshUserSetup.sh
```

To initiate a deployment operation, click the **Install Agent** link on the Grid Control Deployments page. For more details, refer to the "Installing the Management Agent Using Agent Deploy" section in *Oracle Enterprise Manager Installation and Basic Configuration*.

- Install Management Agents using the **agentDownload** script. Launch this script on each target host to "pull" files from a central staging location. The requirements for the **agentDownload** script are:

1. The **agentDownload** script must have execute permission. After you have downloaded the script, change the file permissions as follows:

```
chmod +x agentDownload.<OS>
```

2. Ensure that the "jar" command and "wget" is in the system PATH.

To download and run the **agentDownload** script:

1. Log into the target host.
2. Bring up the browser window.
3. Download the **agentDownload** script from:

```
http://mgmthost27.acme.com:4889/agent\_  
download/10.2.0.1.0/<OS>/agentDownload  
.<OS>
```

4. Navigate to the directory where the **agentDownload** script is available.
5. Change the file permissions as follows:

```
chmod +x agentDownload . <OS>
```

6. Execute the **agentDownload** script as follows:

```
run agentDownload . <OS>
```

For example:

```
/agentDownload.linux -b /scratch/agentInstall
```

You can use the `-h` option to see the usage details.

- Upgrade a previous, qualified version of Enterprise Manager Grid Control. Existing versions of Enterprise Manager will be automatically detected.

Refer to *Oracle Enterprise Manager Grid Control Installation and Basic Configuration* for detailed information and instructions on all of the above operations.

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