# CONTROL-M™ Option for Oracle Applications Administrator Guide

**Version 2.0.02**

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bmcsoftware

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  - system hardware configuration
  - serial numbers
  - related software (database, application, and communication) including type, version, and service pack or maintenance level

- sequence of events leading to the problem
- commands and options that you used
- messages received (and the time and date that you received them)
  - product error messages
  - messages from the operating system, such as `file system full`
  - messages from related software

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# About This Book

This book describes how to install, implement, and administer CONTROL-M Option for Oracle Applications on platforms running CONTROL-M/Server or CONTROL-M/Agent.

This guide describes how to install and configureCONTROL-M Option for Oracle Applications and how to run and control Oracle concurrent requests under CONTROL-M.

This guide contains the following chapters:

| | |
|---|---|
| **Chapter 1** | **Introduction**<br>An overview of CONTROL-M Option for Oracle Applications. Describes Oracle Concurrent Request Manager capabilities and limitations. Each Oracle Applications Concurrent Request status is described and an explanation of relevant terms is provided. |
| **Chapter 2** | **Installation and Configuration**<br>How to install CONTROL-M Option for Oracle Applications. |
| **Chapter 3** | **Implementation**<br>How to configure CONTROL-M Option for Oracle Applications, submit Oracle Applications requests and request sets from CONTROL-M, and receive Oracle Applications requests and request sets from CONTROL-M. |

# Related Publications

- **CONTROL-M/Server Administrator Guides** describe installation, setup, security, and utilities for CONTROL-M on various platforms.
- **CONTROL-M/Agent Administrator Guide** describes installation and maintenance of CONTROL-M/Agent.
- **CONTROL-M Server/Agent Migration Guide** describes how to migrate to CONTROL-M Server/Agent Technology from CONTROL-M 2.1.x.
- **Enterprise Controlstation User Guide** describes ENTERPRISE/CS concepts, features, facilities, and operating instructions.
- **Enterprise Controlstation Administrator Guide** describes administrator responsibilities, installation, customization, maintenance, and security of ENTERPRISE/CS.
- **CONTROL-M/Desktop User Guide** describes the components used to define and manage CONTROL-M job processing definitions, Scheduling tables, and Calendars in ENTERPRISE/CS.

# Notational Conventions

The following abbreviations and terms are used in this guide:

**ENTERPRISE/CS** = Enterprise Controlstation.

The following table describes conventions used in this guide.

| | |
|---|---|
| **<key>** | When describing keystrokes, angle brackets are used to enclose the name of a key (for example, **<F1>**). When two keys are joined with "+" as in **<Shift>**+**<F1>**, hold down **<Shift>** while pressing **<F1>**. |
| **Menu => Option** | This represents an option selection sequence. For example:<br><br>**Users and Groups=>Groups=>Add**<br><br>means that you first select **Users and Groups** from the menu bar; then select the **Groups** option from the submenu. Finally, select the **Add** option from the **Groups** submenu. |
| **{Option A\|Option B}** | The vertical bar is used to separate choices. For example:<br><br>**{AND\|OR}**<br><br>means that you specify either AND or OR. |
| **[Option]** | Square brackets are used to enclose parameters that are optional. |
| **<variable>** | In commands and parameters, angle brackets are used to enclose variable information. For example, the command:<br>**cd <controlm_path>**<br><br>means that you specify **cd** followed by the path of CONTROL-M. |

# Introduction

This document describes the installation and features of CONTROL-M Option for Oracle Applications version 2.0.02 for a Microsoft Windows or Unix platform running CONTROL-M/Server or CONTROL-M/Agent.

## Supported Operating Systems

- AIX versions 4.2 and 4.3 (32-bit)
- AIX versions 5.1 and 5.2 (32-bit and 64-bit)
- HP-UX versions 10.20 (32-bit)
- HP-UX versions 11 and 11i (32-bit and 64-bit)
- Solaris versions 2.6 and 2.7 (32-bit)
- Solaris version 2.8 (32-bit and 64-bit)
- Microsoft Windows NT version 4.0 (with Service Packs 3 and 4)
- Microsoft Windows 2000 Server (with Service Packs 2, 3, and 4)

This product is designed to support versions 10.7, 11.x, and 11i of Oracle Applications.

## Distribution Media

CONTROL-M Option for Oracle Applications is distributed on a CD.

# Overview

CONTROL-M Option for Oracle Applications provides a state-of-the-art scheduling tool for Oracle Applications users.

The Concurrent Request Manager feature of the Oracle Applications system enables the user to specify when to run an Oracle Applications request and to make the execution of one request depend on the completion of another.

Most Oracle Applications requests require scheduling capabilities that are more sophisticated than those provided by the Concurrent Request Manager. Complex dependencies or scheduling criteria may force Oracle Applications users to use scheduling tools that are more advanced than Oracle's Concurrent Request Manager.

The Oracle Applications Concurrent Request Manager can only run and monitor jobs in the Oracle Applications environment. Therefore, other programs at the site are exposed to the problems commonly experienced in a non-automated environment (for example, manual errors, delays, and quality errors). When the Oracle Applications scheduling facility reaches its limits, integration with a robust enterprise production management solution becomes essential.

CONTROL-M Option for Oracle Applications provides a solution that offers the following advantages:

- The ability to use a sophisticated scheduling tool for internal processing of Oracle Applications.

- The ability to integrate Oracle Applications and non-Oracle Applications production processing (for example, OS/390 jobs, Unix shell scripts) into a single, homogenous production environment.

# Oracle Applications Overview

Every Oracle Applications product contains reports or programs that are specific to that product. The Oracle Applications system provides the following two features that run programs and generate reports:

- Concurrent Processing allows non-interactive functions to run simultaneously with on-line operations, without interfering with interactive work. Non-interactive programs run in the background.
- Standard Request Submission works with Concurrent Processing to provide a common interface for running programs and generating reports. This interface consists of:
  - A window for defining collections of reports or programs. These collections are called request sets.
  - A window for submitting reports, programs, and request sets.
  - Software for running reports, programs, and request sets.

## Oracle Applications Definitions

The following terminology is used to describe Oracle Applications processing:

| Term | Definition |
|---|---|
| Application Name | Unique name that identifies the application in the Oracle Applications system. In Concurrent Processing, the name identifies:<br>• Location of the concurrent program executable.<br>• Oracle user and location of the log and output files. |
| Application User | Authorized Oracle Applications user who has at least one responsibility. |
| Concurrent Manager | Component that monitors and runs tasks. One or more concurrent managers can run simultaneously. |
| Concurrent Process | Single instance of a concurrent program that is running. |

| Term | Definition |
|---|---|
| Concurrent Program | Single instance of a concurrent program executable, including parameter values and incompatibilities. |
| Concurrent Program Executable | Operating system file or stored procedure (for example, program, report). |
| Concurrent Request | Concurrent program or request set submitted to run as a concurrent process according to certain scheduling criteria. Each concurrent request is assigned a unique request ID. |
| Data Group | Set of applications and their Oracle User names. Used for security. |
| Execution Method | Concurrent program execution type, such as Oracle tool (SQL*PLUS, SQL*Report, and so forth), operating system host language, spawn process (C or PRO*C programs), stored procedure. |
| Incompatibility (Concurrent Programs Incompatibles) | Concurrent program executable running dependency. |
| Logical Database | Set of data stored under one or more Oracle User names. This term is used for incompatible definitions. |
| Oracle Username | Oracle User who owns the application tables and other database objects. |
| Parameter (Concurrent Program & Request Set) | Concurrent program executable variable. The value of the parameter can be changed each time the program runs. |
| Request Set | Collection of reports and programs that are submitted using a single transaction. A request set can run sequentially or simultaneously. For sequential processing, you can specify whether to stop or continue processing the request set if there is an error. |
| Responsibility | Authorization to access data and run programs and requests. |

## Log Files

Oracle Applications Log files contain information about a concurrent program's execution or a concurrent manager's activities. Log files are generated for all completed concurrent requests. Two types of log files are available:

- Request Log Files – Documents the execution of running concurrent programs. These files are stored as standard operating system files in directories defined during the installation of Oracle Applications:

  — The path name of an Oracle Applications log file depends on the operating system and is built from Oracle environment variables (logical names).

  — The Request Log file name starts with a lowercase L "l", followed by the concurrent request ID, followed by the extension ".req".

  Example: l7654.req

- Manager Log Files – record the performance of the concurrent managers that are running the requests. These files are not used by the CONTROL-M and Oracle Applications interface.

## Output Files

Oracle Applications output file names have different formats on different releases.

- For Oracle Applications release 10.7 and 11.x, the file format is **<username>.<request ID>**. Example: **SYSADMIN.7654**

- For Oracle Applications release 11i, the output file name format is: **o<request_id>.out**. Example: **o382964.out**

# CONTROL-M Production Control

CONTROL-M production control enables “management by exception” for all job production in the data center. Operator or user intervention is required only for unforeseen circumstances and ad hoc job scheduling.

Depending on the platform, CONTROL-M is implemented in one of the following ways:

- **CONTROL-M** – CONTROL-M schedules, submits, and tracks jobs that execute on the platform on which CONTROL-M is installed.

- **CONTROL-M Server/Agent Technology** – CONTROL-M/Server schedules, submits, and tracks the execution of jobs on a heterogeneous collection of Agent platforms across a network. Each CONTROL-M/Server maintains its own database containing scheduling information for both the Server and Agent platforms.

The implementation of CONTROL-M in a specific data center depends on the type of platform used to run CONTROL-M and the version of CONTROL-M currently installed.

Depending upon the implementation used, the full CONTROL-M production control system is comprised of a two-tier or three-tier architecture. The top tier contains Enterprise Controlstation, a graphical user interface that provides a common focal point for all CONTROL-M installations. Enterprise Controlstation provides a consolidated view of scheduling information and task status, manages cross-platform dependencies, and handles execution exceptions for all job production in the data center.

# CONTROL-M Option for Oracle Applications

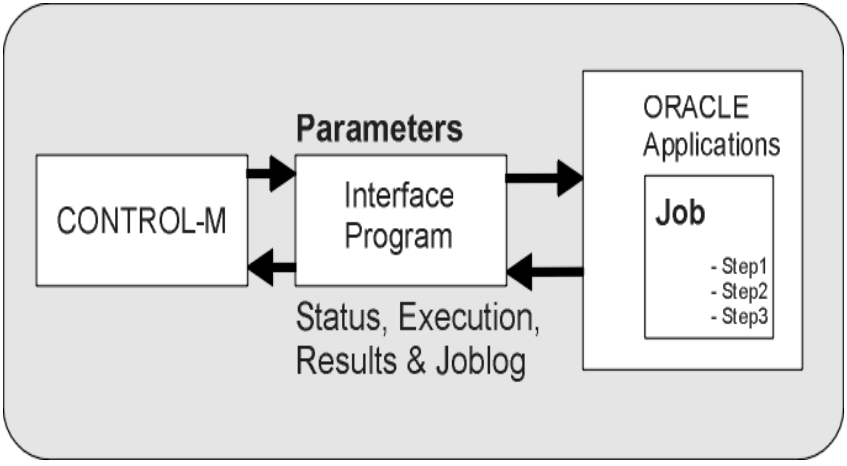
CONTROL-M Option for Oracle Applications is an open interface that enables CONTROL-M to handle Oracle Applications concurrent requests (including Oracle Payroll jobs) as if they were regular batch jobs.

- From the CONTROL-M point of view, Oracle Applications concurrent requests are defined the same way as CONTROL-M jobs.

- From the Oracle Applications point of view, Oracle Applications concurrent programs and request sets are defined the same way as previously defined. However, request submission is performed by CONTROL-M. The Oracle Applications user can observe the concurrent processes and their log and output files through the front-end interface.

Figure 1-1 illustrates the CONTROL-M Option for Oracle Applications interface.

**Figure 1-1 CONTROL-M Option for Oracle Applications**



## Running Oracle Applications Concurrent Requests

The following steps describe how CONTROL-M can run Oracle Applications concurrent requests:

1. Before running an Oracle Applications concurrent request from CONTROL-M, define the concurrent programs and request sets in the Oracle Applications system.

2. Create a CONTROL-M job processing definition. All CONTROL-M capabilities are available to Oracle Applications concurrent requests, including advanced scheduling criteria, complex dependencies, Quantitative resources, Control resources, and AutoEdit variables.

3. When the concurrent request's scheduling criteria are satisfied, CONTROL-M calls CONTROL-M Option for Oracle Applications. You can also run Oracle Applications concurrent programs and request sets directly without using CONTROL-M scheduling criteria.

4. When the concurrent request is released, CONTROL-M Option for Oracle Applications monitors the Oracle Applications system to check the status of the concurrent request. As the concurrent request progresses, its status is updated in both CONTROL-M and Enterprise Controlstation. In addition, Enterprise Controlstation displays the concurrent request's progress, based on history maintained by CONTROL-M.

5. When the concurrent request ends, CONTROL-M Option for Oracle Applications provides CONTROL-M with the concurrent request log file and output.

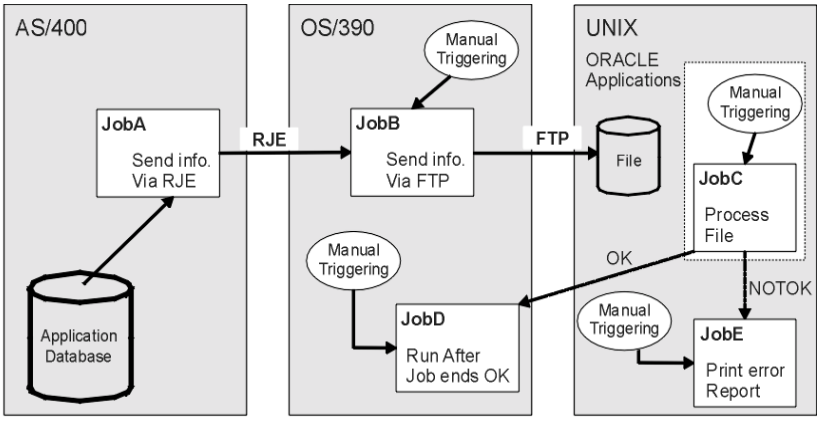
6. CONTROL-M activates its standard post-processing mechanisms. CONTROL-M treats the log file as part of the sysout. CONTROL-M uses the information to determine whether the concurrent request ended OK or NOTOK. This determines whether special action is required, or whether an alert should be issued if the concurrent request failed. Enterprise Controlstation users can view the Oracle Applications concurrent request log file and output using the View Sysout function.

# CONTROL-M Implementation Example

In this example, an Oracle Applications system executes in a Unix environment while the application, which feeds the information, executes on an AS/400 and under OS/390.

Each business day, the AS/400 sends information via RJE to the OS/390 (JobA). JobA initiates an FTP process to the Unix server (JobB). An Oracle Applications user logs into the Oracle Applications subsystem, manually starts a request (JobC), checks its execution results, and starts an ad hoc OS/390 request (JobD). If JobD fails, a Unix request (JobE) is initiated to produce and print an error report.

**Figure 1-2 CONTROL-M Cross-platform Implementation**




This application requires multiple, manual actions to coordinate the various platforms and to coordinate the Oracle and non-Oracle Applications on the Unix system. These manual actions increase the complexity of the operations environment and can delay application processing.

The introduction of CONTROL-M Option for Oracle Applications enables you to automate the process described above.

1. AS/400 jobs are started by CONTROL-M/Server for AS/400.

2. When the AS/400 jobs finish executing, CONTROL-M automatically triggers the OS/390 job.

3. When the OS/390 job completes the FTP process, CONTROL-M triggers the Oracle Applications request.

4. After the Oracle Applications request finishes executing, CONTROL-M analyzes the execution results and the job log. Based on (possible) error messages, it either triggers the last OS/390 job or adds the Unix error-report job to the schedule.

# Installation and Configuration

This chapter describes how to install and configure CONTROL-M Option for Oracle Applications at your site.

## System Requirements

Table 2-1 lists requirements for installation on a Unix platform.

**Table 1-1 Unix Requirements**

| | |
|---|---|
| **Software** | • Oracle client and SQL*Net 8.0.6, 8.1.6, or 9i<br>• CONTROL-M/Agent version 2.2.x, 6.0.xx, or 6.1.xx<br>• CONTROL-M Option for Oracle Applications<br>• SQL*PLUS |
| **Operating System** | Any Unix operating system listed in “Supported Operating Systems” on page 1-1. |
| **Memory** | 10 MB |
| **Disk Space** | 15 MB in the installation directory<br>10 MB in **/tmp** directory during installation |
| **Media Drive** | CD-ROM |

Table 2-2 lists requirements for installation on Microsoft Windows.

**Table 1-2 Microsoft Windows Requirements**

| | |
|---|---|
| **Software** | • Oracle client (including Oracle Net8) 8.0.6, 8.1.6, or 9i<br>• CONTROL-M/Agent version 2.2.x, 6.0.xx, or 6.1.xx<br>• CONTROL-M Option for Oracle Applications<br>• SQL*PLUS |
| **Operating System** | Any Microsoft Windows operating system listed in “Supported Operating Systems” on page 1-1. |
| **Memory** | 2 MB |
| **Disk Space** | 4 MB |
| **Media Drive** | CD-ROM |

**Note**

When using Oracle Applications version 10.7, Oracle SQL*PLUS is needed on both Microsoft Windows and Unix platforms. See “Special Installation Step for Oracle Applications version 10.7” on page 2-12.

CONTROL-M Option for Oracle Applications and CONTROL-M/Agent are supplied separately. CONTROL-M Option for Oracle Applications must be installed on the node where CONTROL-M/Agent is running. However, CONTROL-M Option for Oracle Applications and CONTROL-M/Agent do not need to be installed on the node where the Oracle Applications Concurrent Manager is running.

# Microsoft Windows Installation

Use this procedure for installation on a Microsoft Windows platform:

**Step 1** Insert the CD in the CD-ROM drive.

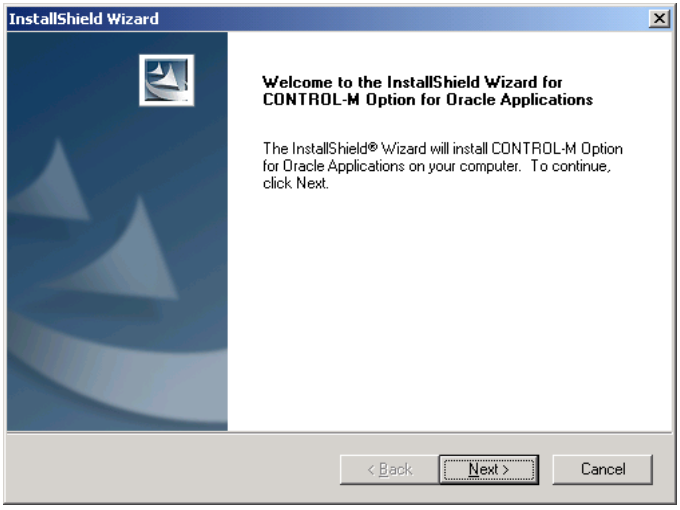
**Step 2** From the Start menu, select **Run** and type the command
**`<Drive_ID>:\<FD#>\NT\setup.exe`**

**<Drive_ID>** identifies the drive in which you placed the CD.
**<FD#>** is the relevant FD number for CONTROL-M Option for Oracle Applications (for example, **e:\fdxxxx\nt\setup.exe**). Click **OK**.

*-or-*

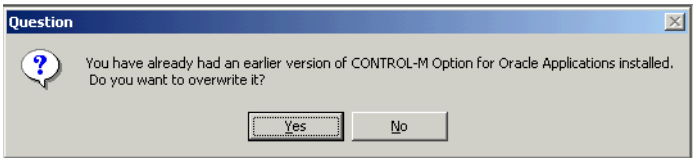
Using Microsoft Windows Explorer, select the drive and directory containing the installation media. Double-click file **setup.exe**.

**Step 3** The InstallShield Wizard Welcome screen is displayed.

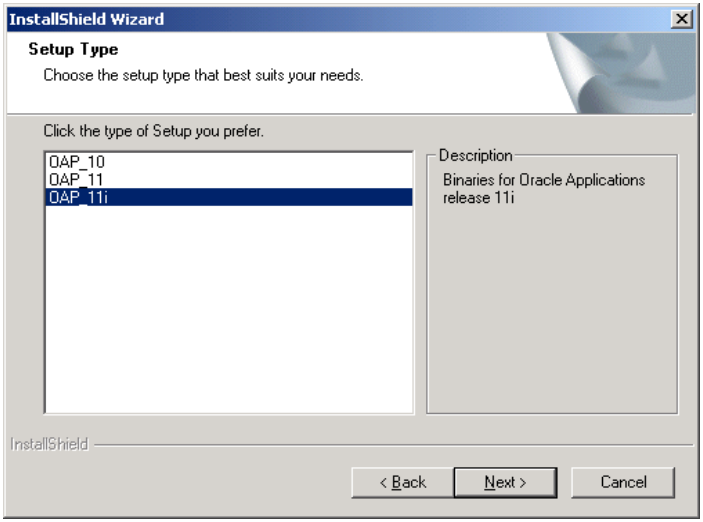



Click **Next**.

**Step 4** If the installation detects an earlier version of CONTROL-M Option for Oracle Applications, it will prompt you to confirm that you want to overwrite the previous installation.

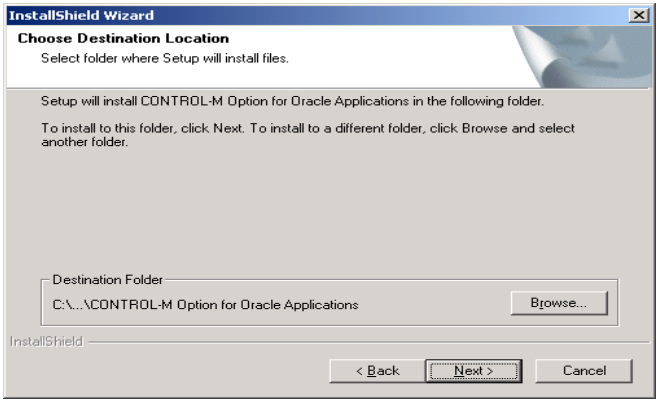



**Step 5** The Setup Type window is displayed:



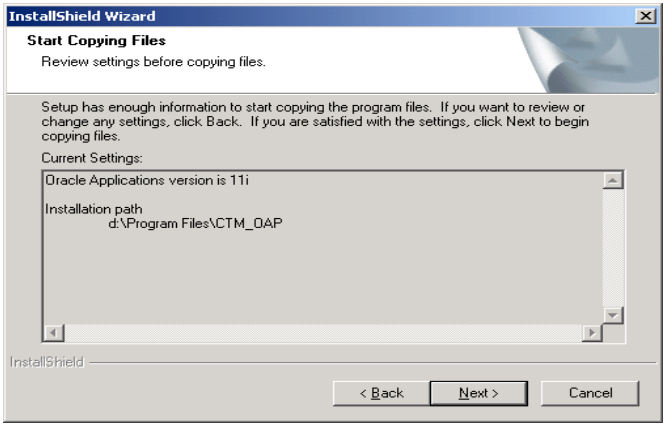

After selecting the proper setup type to match the release number of your Oracle Applications, click **Next**.

**Step 6** The Choose Destination Location window is displayed:




Accept the default or specify another directory in which to install CONTROL-M Option for Oracle Applications. Click **Next**.

**Step 7** The Start Copying Files window is displayed:




Click **Next** if the displayed information is correct. After the installation is completed, subdirectories in Table 2-3 are in the installation directory.

**Table 1-3 Subdirectories in the Installation Directory**

| Directory | Contents |
|---|---|
| **Data** | Configuration files. |
| **Exe** | CONTROL-M Option for Oracle Applications binaries & libraries. |
| **Proclog** | CONTROL-M Option for Oracle Applications debug log files. |
| **Temp** | CONTROL-M Option for Oracle Applications temporary files. |

If this is a new installation for Oracle Applications version 10.7, see the topic "Special Installation Step for Oracle Applications version 10.7" on page 2-12. Otherwise, the installation procedure is completed.

If this is an upgrade installation, configuration instance files in the DATA directory will not be overwritten and can be directly used in this release.

# Unix Installation

To install CONTROL-M Option for Oracle Applications on a Unix platform, you should know:

- How to create a Unix Bourne shell.
- How to create a Unix login.
- How to create directories.
- How to set file privileges.
- How to determine the amount of available real memory, virtual memory, and file system disk space.

CONTROL-M Option for Oracle Applications can be installed on any computer on which Oracle 8.0.6 or 8.1.6 client has been installed and whose operating system is supported by this release.

CONTROL-M Option for Oracle Applications must be installed on a Unix machine used by any user of the program. By default, all users can access CONTROL-M Option for Oracle Applications. However, specific modes can be set to restrict access.

For more information, see chapters 2, 3, and 5 in the *Oracle Applications – Installation Manual for Unix,* Release 10.7.

## Program Installation

Execute the following steps to install CONTROL-M Option for Oracle Applications:

As the root user:

1. Mount the CD-ROM drive
2. Run the installation script
3. Verify Installation and Set Proper Access Mode

As the Oracle user:

4. Configure the Oracle SQL*Net

As the CONTROL-M Option for Oracle Applications user:

5. Configure CONTROL-M Agent
6. Configure CONTROL-M Option for Oracle Applications

**Step 1** Mount the CD-ROM Drive

CONTROL-M Option for Oracle Applications program can be loaded from either a local drive on the CONTROL-M platform or from a remote drive on the same or different type of platform. Depending on whether the CD-ROM drive is local or remote, certain steps are required to ensure that the drive is mounted and accessed correctly.

The CONTROL-M Option for Oracle Applications installation CD is in ISO9660 format. All file names are lower case in 8.3 file name format.

- **Using a local CD-ROM drive**

  If the CD-ROM drive is connected to a Solaris platform, no special action need be taken. Otherwise, perform the following steps:

  1. Log in as user **root**.
  2. Create an empty directory (for example, "**/cdrom**") for mounting the CD-ROM.
  3. Mount the CD-ROM to the mount point directory using the **mount** command.

The **mount** command is different for each platform. Be sure that you use the correct mount option. All file names on the installation CD are lower case. Consult your system administrator about the exact usage of the **mount** command.

- **Using a remote CD-ROM drive**

  1. Mount the CD-ROM on the remote machine as described above.
  2. On the remote machine, place the **/cdrom** directory name in the **/etc/exports** file to make it accessible over the NFS.

     The NFS export utility is platform dependent. Consult your system administrator for detailed information.

  3. Log in as user **root**.
  4. Create an empty directory (for example, "**/cdrom**") for mounting the remote directory.
  5. Mount the remote **/cdrom** directory on your local **/cdrom** directory using the following command:

     **$ mount < remote machine>:/cdrom /cdrom**

**Step 2** If a previous version of CONTROL-M Option for Oracle Applications was installed, go to Step 3. Otherwise, create a UNIX user for CONTROL-M Option for Oracle Applications.

**Step 3** Run the Installation Script

1. Ensure you are logged in as the Unix user for CONTROL-M Option for Oracle Applications.

2. Go to directory **`/<cdrom_dir>/FDXXXX/unix`**

3. Specify the following command to start the installation script:
   `./install`

4. If this is a new installation, go to sub-Step 5. If the installation detects a previously installed version of CONTROL-M Option for Oracle Applications, it displays a message similar to this one:

```
Install CONTROL-M Option for Oracle Application

CONTROL-M Option has already been installed.
>>>>> FD_NUMBER: FD3930
>>>>> Oracle Applications release: 10.7
>>>>> Installation Directory: /home1/ctmag610/OAP_option

Do you want to overwrite this installation? [Y]
```

If you enter **N**, the installation will terminate. If you enter **Y**, the installation prompts for the CONTROL-M Option for Oracle Applications owner name.

```
Please enter the owner name of the CONTROL-M Option [ctmag610]
```

5. The default owner name is the current user name. To override this default, enter a valid Unix user name.

6. The installation prompts for the path where CONTROL-M Option for Oracle Applications will be installed. When upgrading a previous installation, existing path information is displayed.

```
Installation directory: []
or
Installation directory: [/home1/ctmag610/OAP_option]
```

To accept the existing path, press **<Enter>**. To specify a new path or change the existing path, type in the new path.

7. CONTROL-M Option for Oracle Applications has different support binaries for each Oracle Applications release. You must specify the Oracle Applications release version. The installation will load the correct binary for that release.

```
Oracle Applications Version

    1) 10.7
    2) 11.x
    3) 11i

Please enter your choice[3]:
```

If Oracle Applications version 10.7 is specified, an additional installation step is required to install database objects. See “Special Installation Step for Oracle Applications version 10.7” on page 2-12.

8. When installing CONTROL-M Option for Oracle Applications on Solaris, the message shown below is displayed before the installation begins. When the installation ends, you must set two environment variables (for example, IOA_HOME and LD_LIBRARY_PATH) before running CONTROL-M Option for Oracle Applications. Follow the instructions displayed by the installation script.

```
*********************************************************
* After the installation, please add following environment *
* variables to CONTROL-M option owner's .profile if the    *
* login shell is Bourne shell or Korn shell, or .cshrc if  *
* it is C shell :                                          *
    IOA_HOME=/home/ctmagent
    LIBPATH=/home/ctmagent/EXE
```

One environment variable name is different for each operating system. This variable and its value is listed in Table 2-4. Specify this variable correctly to ensure that all the utilities of CONTROL-M Option for Oracle Applications function properly.

**Table 1-4 Environment Variable Names**

| Operating System | Environment Variable | Value |
|---|---|---|
| Solaris | LD_LIBRARY_PATH | <Install_dir>/EXE |
| HP-UX | SHLIB_PATH | <Install_dir>/EXE |
| AIX | LIBPATH | <Install_dir>/EXE |

If the dynamic link environment variable in the current environment does not include the **<install_dir>/EXE** directory, append this directory to the existing dynamic link environment variable.

9. After the two environment variable paths are set, the following message is displayed:

```
Copying Files ...
```

If the installation program detects that some files already exist, it will ask whether to overwrite them.

```
cp: overwrite /home/swu/install_test/DATA/
CONFIG.dat (yes/no)? y
Installation completed.
```

10. When the installation ends, the following message is displayed. For more data about configuration, see Chapter 3, “Implementation”.

```
IMPORTANT !!!
See the Administrator Guide.
Use utility ctmoapcfg from subdirectory
/home/CTMOAP2/oap_test/EXE to change the
CONTROL-M Option for Oracle Applications configuration.
```

**Step 4** Verify Installation; Set Proper Access Mode and Path

After the installation has completed successfully, the files listed in Table 2-5 are in the installation directory.

**Table 1-5 Installation Directory Files**

| Directory | Contents |
|---|---|
| **DATA** | Configuration files. |
| **EXE** | CONTROL-M Option for Oracle Applications binaries, libraries. |
| **PROCLOG** | CONTROL-M Option for Oracle Applications debug log files. |
| **TEMP** | CONTROL-M Option for Oracle Applications temporary files. |

By default, all executables in directory EXE have access mode 755 and all other files have access mode 777. Based on this default, anyone can use CONTROL-M Option for Oracle Applications. You can change the mode to allow only specified users to access it.

By default, all utilities of CONTROL-M Option for Oracle Applications are in the **<install_dir>/EXE** directory. If you add **<install_dir>/EXE** to the CONTROL-M Option for Oracle Applications owner's path, the user will not have to specify the whole path when executing utilities in the **<install_dir>/EXE** directory.

If this is a new CONTROL-M Option for Oracle Applications version 10.7, see “Special Installation Step for Oracle Applications version 10.7” on page 2-12. Otherwise, the installation procedure is completed.

If this is an upgrade from a previous installation, configuration instance files in the DATA directory will not be overwritten. Those files can be used by this release.

### Special Installation Step for Oracle Applications version 10.7

For Oracle Applications version 10.7, this additional installation step is required to install the following related database objects:

- PL/SQL package **CM_SUBMIT**
- concurrent program **BMCREQSET**
- executable **BMC_SETEXE**

1. Make sure Oracle SQL*PLUS is installed. On Unix platforms, the current user's search path is **$ORACLE_HOME/bin**.

2. Go to the **sql** directory in the installation CD.
   On Unix, go to **/<cdrom_dir>/FDnnnn/unix/sql**.
   On Microsoft Windows, go to **<Drive_ID>:\<FD#>\NT\sql**.

3. On both Unix and Microsoft Windows, enter the command:

   ```
   sqlplus <schema APPS login name>@<Oracle SID> @register.sql <Y/N>
   ```

   If the last parameter is set to **Y,** existing database objects may be overwritten. If the last parameter is set to **N**, existing database objects will not be overwritten.

#### Example

```
$ sqlplus apps@VID @register.sql Y

SQL*Plus: Release 8.0.6.0.0 - Production on Tue Jan 30 17:7:36 2001

(c) Copyright 1998 Oracle Corporation.  All rights reserved.

Enter password:

Connected to:
Oracle7 Server Release 7.3.4.0.1 - Production
With the parallel query option
PL/SQL Release 2.3.4.0.0 - Production

DOC> +=================================================================+
DOC> | FILENAME
DOC> |      BMCRSSS.pls
DOC> |
DOC> | DESCRIPTION
DOC> |      PL/SQL specification for package:  CM_SUBMIT
DOC> |
DOC> | PROCEDURES, FUNCTIONS
DOC> |      FUNCTION set_mode (
DOC> |                db_trigger IN boolean)  return boolean
DOC> |
```

```
DOC> |      FUNCTION set_nls_options (
DOC> |               language  IN varchar2,
DOC> |               territory IN varchar2)  return boolean
DOC> |
DOC> |      FUNCTION set_repeat_options (
DOC> |               time      IN varchar2,
DOC> |               interval  IN number,
DOC> |               unit      IN varchar2,
DOC> |               type      IN varchar2,
DOC> |               end_time  IN varchar2)  return boolean
DOC> |
DOC> |      FUNCTION set_print_options (
DOC> |               printer IN varchar2,
DOC> |               style   IN varchar2,
DOC> |               copies  IN number,
DOC> |               save_output    IN boolean,
DOC> |               print_together IN varchar2) return boolean
DOC> |
DOC> |      FUNCTION set_request_set        (
DOC> |               application IN varchar2,
DOC> |               request_set IN varchar2
DOC> |              )  return boolean
DOC> |
DOC> |      FUNCTION submit_program (
DOC> |               application IN varchar2,
DOC> |               program     IN varchar2,
DOC> |               argument1   IN varchar2,
DOC> |               argument2   IN varchar2,
DOC> |               .........
DOC> |               argument100 IN varchar2) return boolean
DOC> |
DOC> |      FUNCTION submit_set (
DOC> |               start_time IN varchar2 default null,
DOC> |               sub_request IN boolean default FALSE)
DOC> |               return number
*=====================================================================*

Package created.
Package created.
Commit complete.
Package body created.
Commit complete.
old   7: overwrite := '&1';
new   7: overwrite := 'Y';
Remove existing program "BMCREQSET"...
Remove existing executable "BMC_SETEXE"...
Installing executable "BMC_SETEXE"...
Installing program "BMCREQSET"...

PL/SQL procedure successfully completed.
Commit complete.

Disconnected from Oracle7 Server Release 7.3.4.0.1 - Production
With the parallel query option
PL/SQL Release 2.3.4.0.0 - Production
```

4. Determine if any error messages were generated during the execution of the **register.sql** script. If errors were generated, try to fix them. If these database objects are not installed correctly, CONTROL-M Option for Oracle Applications cannot submit jobs.

# Configuration

## Oracle SQL*NET

After installing CONTROL-M Option for Oracle Applications, identify where the Oracle Applications database server is located. Use Oracle Net8 Easy Config to configure the SQL*Net so the database server can be accessed from the platform where CONTROL-M Option for Oracle Applications is installed. For more data, see the Oracle documentation.

## ctmoapcfg Utility

When CONTROL-M Option for Oracle Applications supports multiple Oracle Applications installations, each installation must have a unique configuration name. Specify the default configuration name in the CONTROL-M/Agent configuration file or use the **ctmoapcfg** utility to specify this name. Execute the **ctmoapcfg** utility from a DOS window. Use the following command line to specify a configuration name:

```
C:\<installation dir>\exe\ctmoapcfg.exe [config_name]
```

This command causes a window similar to the following to be displayed.

```
$ctmoapcfg

        CONTROL-M Option for Oracle Application Configuration Utility

        Configuration Name : OAP11I
1)      Oracle Application Release Version: [11i]
2)      ORACLE_HOME path:                   []
3)      Database Service Name (ORACLE_SID): [OAP_11i]
4)      Schema APPS Login Name            : [apps]
5)      Schema APPS Password              : [********]
6)      Track All Sub_Requests' Status    : [Y]
7)      Status Tracking Interval          : [20]
8)      Debug level                       : [0]
9)      Set Current Configuration as Default   : [Y]
10)     Install PL/SQL Package            : [Y]
11)     Append Concurrent Output to Sysout: [N]

s)      Save
q)      Quit

Please enter your choice:
```

Parameters of the ctmoapcfg utility are described in Table 2-6:

**Table 1-6 ctmoapcfg Parameters**

| Parameter | Description |
|---|---|
| **Oracle Application Release Version** | Oracle Applications version number. Optional. |
| **ORACLE_ HOME path** | Directory path of Oracle Applications. Mandatory. |
| **Database Service Name** | Oracle System Identifier (SID). Mandatory. Each Oracle instance has a unique SID that identifies the Oracle system's SGA. Default: Oracle database owner's name. |
| **Schema APPS Login Name** | Oracle database login name. Mandatory. |
| **Schema APPS Password** | Oracle database password. Mandatory. |
| **Track All Sub-Requests Status** | Valid values: **Y, N**. Default: **Y**. Optional. |
| **Set Current Configuration as Default** | Valid values: **Y**, **N**. Default: **N**. Optional. |
| **Status Tracking Interval** | Tracker sleep time (in seconds). The tracker periodically checks the Oracle Applications request's status. Optional. Default: **30**. |
| **Debug Level** | Debug level. Optional. Range: 0 - 5. Level 5 provides the most information. If set to 0, a debug log file is not generated. Messages are written to the debug log file in this location: **<installdir>\proclog\ctmjobrun_< >.log** |
| **Install PL/SQL Package** | Optional. If you choose **Y**, the program will install a PL/SQL package in the database. This package enables you to view the concurrent request log appended to sysout. |
| **Append Output to Sysout** | Flag that indicates whether to append concurrent request output to sysout. Optional. Default: **N**. If you:<br>• install the PL/SQL package (see above),<br>• set this flag to **Y**, and, for each job submission,<br>• set parameter OAP_DISPLAY_OUTPUT to **Y**,<br>you can view concurrent request output appended to sysout. |

**Note**

To append the concurrent program log and output to sysout, the concurrent manager and database server must be running on the same machine. In addition, the concurrent program log and output directory must be specified in the **utl_file_dir** entry in the **init.ora** file (a database definition file in the **$ORACLE_HOME/dbs** directory).

To view the output, install the PL/SQL package and specify **Y** in item 11, Append Concurrent Output to Sysout, in the Configuration Utility window. For each **ctmjobrun** submission, you must set parameter OAP_DISPLAY_OUTPUT to **Y**.

The **<installation_dir>/EXE** directory contains three other utilities: **ctmcfg**, **ctmioacli,** and **ctmcustm**. All of these utilities are used for debugging by BMC technical support staff only.

After completing the installation and configuration, go to Chapter 3, “Implementation”.

# Troubleshooting

1. By default, a log file is not produced if the **ctmjobrun** utility is executed with correct input variables. To produce the log file, use the **ctmoapcfg** utility to set the debug level to 4 or 5, and then rerun the **ctmjobrun** utility. Log file **<CTMJOBRUN>_<processID>.log** will be created in the **<installation_directory>/PROCLOG** path. Examine the messages in this log file.

2. If the **ctmjobrun** utility fails, there may be no debug log file even though the debug level is not 0. Solution: Determine if file **`/etc/BMCSoftware/CONTROL-M-Agent/CTMIOAAPI`** exists. If this file does not exist, ensure that the path specified in the owner's environment variable IOA_HOME is the correct CONTROL-M Option for Oracle Applications installation path. If file **`/etc/BMCSoftware/CONTROL-M-Agent/CTMIOAAPI`** does exist, ensure that this file contains a line similar to: **`IOA_HOME <CONTROL-M option installation path>`**

3. If the **ctmjobrun** utility fails to locate the **libclntsh.so.1.0** Oracle library, it will generate this error message on a Unix platform:

```
> ./ctmjobrun
Attach failed: Failed to Attach BE Library ./EXE/lib_BE_OAP.so,
error:'DLL './EXE/lib_BE_OAP.so' cannot be loaded,
error <ld.so.1: ./ctmjobrun: fatal: libclntsh.so.1.0:
Open failed: No such file or directory>
Usage:
CTMJOBRUN
     -IOA_APPL        <Configuration Name>]
     [-INPUT_FILE     <Input File>]
     [-OUTPUT_MODE    <Output Mode>
     [-OUTPUT_DEST    <Output destination>
     [-POLL_INTERVAL  <Polling Interval>]
     [-DBGLVL         <Debug Level>]
     [-...            <Back End Specific Parameters>]
Solution: Specify the correct path in the environment variables:
On Solaris: LD_LIBRARY_PATH=<installdir>/EXE
On AIX: LIBPATH=<installdir>/EXE
On HP: SHLIB_PATH=<installdir>/EXE
```

4. You can install CONTROL-M Option for Oracle Applications even if you do not have root access. You must be the CONTROL-M Option for Oracle Applications owner. During the installation, specify an interface installation path and give the CONTROL-M Option for Oracle Applications owner read and write access to this path. When the installation program asks: "Do you want to save the installation configuration as default? [Y]", you must reply **N** [No].

   Manually set two environment variables as instructed by the installation script. For example, on a Solaris platform, set the following two variables:

   ```
   IOA_HOME=/home/CTMOAP2/oap_test
   LD_LIBRARY_PATH=/home/CTMOAP2/oap_test/EXE
   ```

5. If CONTROL-M Option for Oracle Applications is installed on an HP-UX machine with Oracle client 8.0.6 and Oracle Applications database server 8.1.6, the **ctmjobrun** and **ctmintercept** utilities may generate a core dump. This is caused by a bug in Oracle client 8.0.5 and 8.0.6. If you don't have the proper patch installed, there is a simple workaround. Set the environment variable at the CONTROL-M Option environment

   ```
   "NLS_LANG=AMERICAN_AMERICA.WE8ISO8859P1"
   ```

   before executing the **ctmjobrun** and **ctmintercept** utilities.

6. If a job intercepted by the **ctmintercept** utility is submitted to CONTROL-M/Agent for Microsoft Windows version 6.1.0x, and the Oracle Applications job name (concurrent program short name or request_set code) contains a /, CONTROL-M/Agent fails to execute the intercepted job because the / is treated as a path separator.

7. If library paths are dynamically updated, verify that the `<CTM Option HOME>/EXE` directory was appended to the existing library paths.

8. If the Oracle client is Oracle 9i on Unix, set environment variable TNS_ADMIN to the full path name of the **tnsnames.ora** file.

9. A core dump may occur if too many ctmjobrun jobs run concurrently and the system does not have enough resources for them.

# Implementation

## Submitting Oracle Applications Jobs

CONTROL-M Option for Oracle Applications program **ctmjobrun** is used to submit Oracle Applications requests and request sets. This program is invoked by executing command **ctmjobrun**.

### ctmjobrun Syntax

The syntax for Microsoft Windows and Unix platforms is the same.

```
<installation dir>/EXE/ctmjobrun
[-INPUT_FILE <Input File full path>]
[-OUTPUT_MODE <STDOUT|NEW|APPEND>[-OUTPUT_DEST <Output Dest.>]]
[-POLL_INTERVAL <Polling Interval>]
[-DBGLVL <Debug Level 0-5 >]
[-IOA_APPL <Oracle Application configuration name>]
-OAP_USERNAME <Oracle Application user name>
-OAP_RESPNAME <Oracle Application responsibility name>
-OAP_RESPAPP <Oracle Applic.resp.name assoc.applic.short name>
[-OAP_SECURITY_GROUPNAME <Oracle Application Security Group Name>]
-OAP_TASKTYPE <REQUEST|REQUEST_SET>
-OAP_PROGNAME <Concurrent Pgm short name or Request_Set code>
-OAP_APPNAME <Concur.Pgm or Request_set assoc.appl.short name>
[-OAP_PROFILE. <Profile Name> <profile value>]
[-OAP_WAITCHILD <YES|NO>]
[-OAP_PRINTERNAME <printer name>]
[-OAP_PRINTSTYLE <Printing style>]
[-OAP_PRINTCOPIES <n>]
[-OAP_DISPLAY_OUTPUT <Y/N>]
[-OAP_NOTIFICATION<n> <Oracle Application User Name>]
[-PARM1 <value>] [-PARM2 <value>] [-PARM<n> <value>] ...
[-OAP_STAGEPARM_<stage seq num>_<prog short name>_PARM_n <value>]...
[-OAP_STAGEPARM_<prog short name>_PARM_n <value>]...
[-OAP_DESCRIPTION <Text string of a concurrent program>]
[-OAP_PARM_VALIDATION <Y|N>]
```

If a value for a parameter contains an embedded space and this value is provided through the command line, place double quotes (“”) around the value. If this value is provided in an input file, quotes are not needed.

## ctmjobrun Parameters

The **ctmjobrun** utility accepts the parameters listed in Table 3-1:

**Table 1-1 ctmjobrun Parameters**

| Parameter | Reqd | Description |
|---|---|---|
| INPUT_FILE | No | Input text file full path. All **ctmjobrun** input parameters can be stored in an input file. If a parameter in this input file is also in the command line, the value in the command line will supersede the value in the file. For more information, see “Examples” on page 3-5. |
| INPUT_ENV | No | This parameter is for internal debug use. |
| OUTPUT_MODE | No | Sysout mode. Valid values: STDOUT, NEW, APPEND.<br>• STDOUT: Sysout is displayed in the standard output file. OUTPUT_DEST is not needed.<br>• NEW: sysout is saved in the file specified in OUTPUT_DEST.<br>• APPEND: Sysout is appended to file specified in OUTPUT_DEST.<br>If a valid OUTPUT_DEST is specified but a valid OUTPUT_MODE is not specified, the OUTPUT_MODE is treated as NEW.<br>Default: STDOUT |
| OUTPUT_DEST | No | File name to which sysout is written. You can specify a full path name or just a file name, but not a relative path. If you specify a file name without specifying the full path, the file will be in <**install_dir**>. This parameter is mandatory if OUTPUT_MODE is NEW or APPEND; otherwise, this parameter is ignored. |
| POLL_INTERVAL | No | Time in seconds after which CONTROL-M Option for Oracle Applications tracks the status of submitted Oracle Applications requests.<br>If POLL_INTERVAL is less than or equal to 0:<br>• CONTROL-M Option for Oracle Applications will continuously track the Oracle Applications job's status until it finishes.<br>• System performance may be impaired If there are many Oracle Applications jobs.<br>Default: 30 |

**Table 1-1 ctmjobrun Parameters**

| Parameter | Reqd | Description |
|---|---|---|
| DBGLVL | No | Debug level. Range: 0 - 5. Default: 0 – debug log is not generated. Level < 0 is treated as 0. If debug level > 0, debug messages are generated during job execution and written to a debug log in the **<installation_dir>/PROCLOG/** directory. Level 5 generates the most detailed debug log.<br>• On Unix, the debug file name is **CTMJOBRUN_<process ID hex format>.log**<br>• On Microsoft Windows, the debug file name is **CTMJOBRUN_<process ID>.log** |
| IOA_APPL | Yes | Oracle Applications configuration name. |
| OAP_USERNAME | Yes | Oracle Applications user name. |
| OAP_RESPNAME | Yes | Oracle Applications responsibility name |
| OAP_RESPAPP | Yes | Oracle Applications short name for defining responsibility. |
| OAP_SECURITY _GROUPNAME | No | In Oracle Applications version 11i, if the multiple Security Group is enabled, this parameter is required to initialize the user session. Default: STANDARD |
| OAP_TASKTYPE | Yes | Type of request. Valid values: REQUEST and REQUEST_SET. |
| OAP_ PROGNAME | Yes | If OAP_TASKTYPE is REQUEST, a concurrent program short name is required. If OAP_TASKTYPE is REQUEST_SET, a request set code is required. In Oracle Applications version 10.7, always use the request set name for this parameter. |
| OAP_APPNAME | Yes | Application short name under which the concurrent program or request set is defined. |
| OAP_WAITCHILD | No | Indicates whether a job with subrequests waits for its subrequests to finish. Default: YES – CONTROL-M jobs wait for all subrequests to finish. If the value is NO, the CONTROL-M job does not check subrequest status and finishes when the parent request finishes. |
| OAP_PROFILE. <profile_name> | No | Use this parameter if request defaults depend on a profile value that needs to be set or overwritten. |
| PARM<n> | No | By default, CONTROL-M Option for Oracle Applications retrieves all default parameters for a request/request set. If one or more parameters does not have a default value or you want to overwrite its value, use this parameter. |

**Table 1-1 ctmjobrun Parameters**

| Parameter | Reqd | Description |
|---|---|---|
| OAP_STAGEPARM _<stage seq num>_ <prog short name>_ PARM_n | No | ***For Oracle Applications versions 11.x and 11i:*** Used to pass parameter values to a request set. Default parameter values are retrieved for all parameters of all concurrent programs in the request set. Use this parameter if one or more parameters does not have a default value, or if you want to overwrite one or more default values. For more information, see the Examples below. |
| OAP_STAGEPARM_< prog short name>_ PARM_n | No | ***For Oracle Applications version 10.7:*** Used to pass parameter values to a request set. |
| OAP_ PRINTERNAME | No | Printer to which the current request or request set will be sent. CONTROL-M Option for Oracle Applications cannot validate the availability of a printer. Ensure that the specified printer name is registered in Oracle Applications and that the printer is on-line. Otherwise, the request or request set will not be printed. **Note:** If this parameter is specified, you must also specify OAP_PRINTSTYLE and OAP_PRINTCOPIES. |
| OAP_ PRINTSTYLE | No | Printer style for the report. CONTROL-M Option for Oracle Applications cannot validate a style's availability. If the specified style is not valid, the request or request set will not be printed. **Note:** If this parameter is specified, you must also specify OAP_PRINTERNAME and OAP_PRINTCOPIES. |
| OAP_ PRINTCOPIES | No | Number of copies to be printed. Negative numbers are treated as 1 and a warning message is sent to the debug log file if the debug level is 2 or higher. Be sure to specify a reasonable value. **Note:** If this parameter is specified, you must also specify OAP_PRINTERNAME and OAP_PRINTSTYLE. |
| OAP_ DESCRIPTION | No | Text description that overrides the concurrent program description defined in the database during job submission. Optional. **Note:** This parameter can be used with a request but not with a request set. |
| OAP_NOTIFICATION <n> | No | Specify Oracle users to be notified when the concurrent request is finished. Optional. Maximum length: 30 characters. A maximum of 10 Oracle users can be specified. **Note:** This parameter is not supported for Oracle Applications release 10.7. |
| OAP_DISPLAY_ OUTPUT | No | Flag that indicates whether to write concurrent request output to sysout. Optional. Valid values: **Y**, **N**. Default: **N**. If you specify **Y**, be sure that items **10)** and **11)** are set to **Y** in the **ctmoapcfg** utility. Check that the requirements of the Note on page 2-16 are satisfied. |
| OAP_PARAM_ VALIDATION | No | Flag that indicates whether the **ctmjobrun** utility will validate user input parameter values against their value_set. Valid values: **Y**, **N**. Default: **Y**. |

You can set the parameter default type and default value on the command line. For a single request, use **-parm<n>**. For a request set, use **OAP_STAGEPARM_<stage_seq>_<prog_shortname>_PARM_<n>**. The string for the parameter default type and value must have one of the following formats:

```
OAP_SQL: <the sql string>
OAP_PROFILE: <the profile name>
OAP_SEGMENT: <the segment name>
OAP_CONSTANT: <The constant string>
OAP_CURRENT_DATE:
OAP_CURRENT_TIME:
```

See the examples below.

## Examples

These examples show how to use the **ctmjobrun** utility on a Unix platform. The same syntax applies to a Microsoft Windows platform except the directory and OS commands are different.

- Submit a single request through the command line. Write the sysout to the standard output.

```
$ctmjobrun -IOA_APPL BE_OAP -OAP_USERNAME OPERATIONS -OAP_APPNAME MRP \
-OAP_PROGNAME MRRSCC -OAP_TASKTYPE REQUEST \
-OAP_RESPNAME “Manufacturing, Vision Operations” \
-OAP_RESPAPP   MFG \
-OAP_WAITCHILD YES \
-PARM1         603 \
-PARM2    P2-MDS-P \
-PARM6      P2-MDS \
-OAP_PROFILE.MFG_ORGANIZATION_ID 603
```

- Submit a request using an input file named **/tmp/test/input1.dat**. Write the sysout to a file named **<installation_dir>/output.log**.

  Parameters in the input file are not preceded by a hyphen. Quotation marks are not needed even if a parameter value has embedded spaces. Use a leading **#** to comment out a line. Use one or more spaces to separate the parameter name and its value.

The **/tmp/test/input1.txt** file has the following lines.

```
$ more /tmp/test/input1.txt
# This is a single request definition
IOA_APPL       BE_OAP
OAP_USERNAME   OPERATIONS
OAP_APPNAME    MRP
OAP_PROGNAME   MRRSCC
OAP_TASKTYPE   REQUEST
OAP_RESPNAME   Mfg, Vision Operations (USA)
OAP_RESPAPP    MFG
OAP_WAITCHILD  YES
PARM1          603
PARM2          P2-MDS-P
PARM6          P2-MDS
OAP_PROFILE.MFG_ORGANIZATION_ID   603
```

The command to submit a request is:

```
$ctmjobrun -INPUT_FILE /tmp/test/input.txt -OUTPUT_MODE NEW
    -OUTPUT_DEST output.log
```

- Submit a request with an input file. The input file is **/tmp/test/input1.dat**. This request is submitted to a different Oracle Applications installation with configuration name **TEST_OAP**.

  Use the **ctmoapcfg** utility to set the configuration parameters for the new Oracle Applications installation with configuration name **TEST_OAP**. The value of **IOA_APPL** in the command line overwrites the value of **IOA_APPL** in the input file. The command to submit this request is:

  ```
  $ctmjobrun -INPUT_FILE /tmp/test/input.txt -IOA_APPL TEST_OAP.
  ```

- If you want to use the ctmjobrun utility to submit a job and overwrite the default parameter types and values defined in Oracle.

  ```
  $ctmjobrun -IOA_APPL BE_OAP -OAP_USERNAME OPERATIONS -OAP_APPNAME MRP \
   -OAP_PROGNAME MRRSCC -OAP_TASKTYPE REQUEST \
   -OAP_RESPNAME "Manufacturing, Vision Operations" \
   -OAP_RESPAPP MFG \
   -OAP_WAITCHILD YES \
   -OAP_PROFILE.MFG_ORGANIZATION_ID 603 \
   -PARM1  OAP_PROFILE:MFG_ORGANIZATION_ID \
   -PARM2  P2-MDS-P \
   -PARM6  OAP_SEGMENT:MRP_SRS_SCHEDULE_NAME
  ```

### Command Line mapping from version 1.0.0 to version 2.0.02

CONTROL-M Option for Oracle Applications version 2.0.02 is not backward compatible with version 1.0.0. The command line utility is **ctm_oap** in version 1.0.0 and **ctmjobrun in** version 2.0.02. Table 3-2 shows how to map parameters from **ctm_oap** to **ctmjobrun**.

**Table 1-2 Parameter conversion from ctm_oap to ctmjobrun**

| Parameter in ctm_oap | Parameter in ctmjobrun | Description |
|---|---|---|
| -user | -OAP_USERNAME | Oracle Applications user name |
| -role | -OAP_RESPNAME | Responsibility Name |
| -application | -OAP_RESPAPP | Application short name associated with the responsibility |
| -prog | -OAP_PROGNAME | Concurrent program short name or request set name |
| -parm<n> | -PARM<n> | Concurrent program parameters |
| -request_set | -OAP_TASKTYPE | Flag that indicates job is a request or a request set |
| -dbg | -DBGLVL | Debug level. Range: 0 through 5. |
| -progname | -OAP_ DESCRIPTION | User description for the request or request set |
| -log | -OUTPUT_MODE -OUTPUT_DEST | Output log file mode and name. |

# Intercepting Oracle Applications Jobs

You can use the Oracle Applications GUI to submit a request, but this request will be “on hold” in the concurrent manager job queue. A CONTROL-M job is created for each "on hold" request in Oracle Applications. The CONTROL-M job releases the "on hold" request in Oracle Applications, tracks the request’s status, and produces the sysout. This enables you to use the Oracle Applications GUI to submit a request. At the same time, you can use CONTROL-M to monitor the job’s status and handle the sysout.

## Profile Variable CONC_HOLD

To implement job interception, you must decide which application user, responsibility, or application's requests need CONTROL-M to intercept the jobs. Set profile variable CONC_HOLD to YES. For information about how to configure profiles, see the Oracle Applications *System Administrator Guide*.

## Configure Interception

Use the **ctmextcfg** utility to configure the job interception process. On a Microsoft Windows platform, the **ctmextcfg** utility is located in **<installation_dir> \EXE\ctmextcfg.exe** and must be executed from a DOS window. On a Unix platform, the **ctmextcfg** utility is located in **<installation_dir>/EXE/ctmextcfg**. The **ctmextcfg** utility has the same syntax on Microsoft Windows and Unix. Use the following command to invoke the utility:

```
$ctmextcfg <configuration_name>
```

A screen similar to the following will be displayed:

```
$ ./ctmextcfg

        CONTROL-M Option for Oracle Application Configuration Utility

                Default Intercept Job Configuration

        Configuration Name : OAP11I
1)      Intercept Job starts from  Request Id....: [0]
2)      Intercepted Jobs be submitted to NODEGRP.: []
3)      Intercepted Jobs be submitted as USER....: []
4)      Control-M/Server Host Name..............: []
5)      Control-M/Server Port Number............: []
6)      TCP/IP Timeout..........................: [0]

s)      Save
q)      Quit

Please enter your choice:
```

The configuration parameters listed in this screen are described in Table 3-3.

**Table 1-3 Default Intercept Job Configuration Parameters**

| Name | Req | Default | Description |
|---|---|---|---|
| Intercept Job starts from Request Id | No | 0 | Ctmintercept will intercept requests whose request_id is after the specified request_id. |
| Intercepted Jobs be submitted to NODEGRP | No | Current machine's host name | Specify the NODEGRP where the CONTROL-M job will be created. |
| Intercepted jobs be submitted as USER | No | ctmintercept current user | Specify the name of the Owner of the CONTROL-M job. |
| CONTROL-M/Server Host Name | Yes | | Specify the CONTROL-M/Server Host Name for the platform where the CONTROL-M job is created. |
| CONTROL-M/Server Port Number | Yes | | Specify the CONTROL-M/Server Agent-to-Server port number. |
| TCP/IP Timeout | No | 0 | Specify the TCP/IP time out interval in seconds. |

If the specified NODEGRP user is not the current machine's hostname, ensure that CONTROL-M Option for Oracle Applications is installed properly and that the specified NODEGRP exists. Otherwise, the Oracle job in CONTROL-M will fail and the request will not be released in Oracle Applications.

For the CONTROL-M job owner, the default NODEGRP user is the user who is currently running the **ctmintercept** utility. For the intercepted job to be successfully completed (see below), you must put the **ctmjobrun** utility in the CONTROL-M job owner's search path.

The debug level of that configuration name determines which messages are written to the job interception debug log files. To change the debug level, follow the instructions for the **ctmoapcfg** utility. The debug log files are located in the **<installation_dir>/PROCLOG** directory. On Microsoft Windows, the log file name is **CTMINTERCEPT_<process_ID>.log**. On Unix, the log file name is **CTMINTERCEPT_<process_ID_hex_format>.log**.

## Start Job Interception

This utility creates a CONTROL-M job for each on_hold request in the Oracle Applications job queue. CONTROL-M releases each job in the Oracle Applications job queue, tracks its status, and produces a sysout in CONTROL-M. You can use the Enterprise Controlstation GUI or the **ctmpsm** utility to monitor the jobs created by this utility.

The **ctmintercept** job interception utility is in the **<installation_dir>/EXE** directory.

Use the following command to invoke this utility:

```
ctmintercept [-IOA_APPL configuration_name]
```

If one of the configuration names is set as the default by the **ctmoapcfg** utility, you can directly invoke ctmintercept.

The **ctmintercept** utility exits after all jobs have been successfully created in CONTROL-M. If you want the **ctmintercept** utility to periodically intercept Oracle Applications jobs, use CONTROL-M to create a cyclical job that invokes the **ctmintercept** utility.

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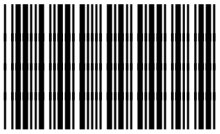

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