Oracle® Tuxedo Application Runtime for Batch

Installation Guide

12*c* Release 1 (12.1.1)

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ORACLE®

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Overview

Oracle Tuxedo Application Runtime for Batch software is distributed as an installer file which can be executed on UNIX platforms using any of the following three methods:

- Graphical user interface (GUI) installation.

- Console installation.

- Silent installation.

Oracle Tuxedo Application Runtime for Batch 12*c* Release 1 (12.1.1) distribution contains the following key components:

- Oracle Tuxedo Application Runtime for Batch administrative utilities

- Oracle Tuxedo Application Runtime for Batch sample applications (optionally installed)

By default, Oracle Tuxedo Application Runtime for Batch is installed in the `artbatch12110` directory under `<ORACLEHOME>`.

System Requirements

- JRE version 1.6.0 or above

Supported Platforms

Please refer to Appendix A, "Supported Platforms".

Oracle Tuxedo Application Runtime for Batch Installation Program

The Oracle Tuxedo Application Runtime for Batch software is distributed as an installation program for UNIX systems. The Oracle Tuxedo Application Runtime for Batch installation program supports three installation methods. You can use any of these methods to install the Oracle Tuxedo Application Runtime for Batch product software:

- Graphical user interface (GUI) mode installation, described in "Oracle Tuxedo Application Runtime for Batch GUI-Mode Installation" on page 2-1.

- Console-mode installation, described in "Oracle Tuxedo Application Runtime for Batch Console-Mode Install" on page 3-1.

- Silent installation, described in "Oracle Tuxedo Application Runtime for Batch Silent Mode Installation" on page 4-1.

What's Next?

You are now ready to begin your installation. For more information, see:

- Oracle Tuxedo Application Runtime for Batch GUI-Mode Installation

- Oracle Tuxedo Application Runtime for Batch Console-Mode Install

- Oracle Tuxedo Application Runtime for Batch Silent Mode Installation

- Oracle Tuxedo Application Runtime for Batch Post Installation

Oracle Tuxedo Application Runtime for Batch GUI-Mode Installation

The following sections describe how to install Oracle Tuxedo Application Runtime for Batch using graphical user interface (GUI) mode installation on UNIX systems:

- What Is GUI-Mode Installation
- Installing on UNIX Platforms in Graphics Mode

What Is GUI-Mode Installation

GUI-mode installation is a graphics-based method for executing the Oracle Tuxedo Application Runtime for Batch installation program that runs on UNIX systems.

To run GUI-mode installation, the computer console on which you are installing the software must support a Java-based GUI.

Notes: Not all UNIX systems support Java-based GUIs.

To install Oracle Tuxedo Application Runtime for Batch on a non-graphical UNIX system console, see "Oracle Tuxedo Application Runtime for Batch Console-Mode Install" on page 3-1.

Installing on UNIX Platforms in Graphics Mode

Perform the following steps to install the Oracle Tuxedo Application Runtime for Batch software on UNIX systems in graphics mode:

1. Launch the Oracle Tuxedo Application Runtime for Batch installation program.

     a. Log on as root or another user with sufficient permissions.

     b. Execute the installation program:

```
./installer_name.bin
```

       The Introduction screen appears.

2. Click *Next* to proceed with the installation. The Choose Oracle Home Directory screen appears.

You can select from the following options:

– Choose existing Oracle Home directory

Click the *Choose existing Oracle Home directory* option button if you already have one or more Oracle Home directories on your system. Select an Oracle Home directory from the list displayed to the right of the option buttons.

All valid Oracle Home directories are displayed in this list. Valid Oracle Home directories are directories where Oracle products have been installed using the standard installation program.

– Specify Oracle Home directory

Click the *Specify Oracle Home directory* button to enter a valid directory.

Note: If an existing Oracle Tuxedo Application Runtime for Batch 12*c* Release 1 (12.1.1) installation is detected, you are prompted to overwrite it or not. Select "*yes*" to overwrite the existing installation.

3. Click *Next* to proceed with the installation. The Choose Install Folder screen appears.

If the selected Oracle Home has no Oracle Tuxedo Application Runtime for Batch 12*c* Release 1 (12.1.1) installed, you'll have a chance to modify the default install directory. Or else the detected directory name will be suggested. The default install directory is `artbatch12110` under `<ORACLEHOME>`.

Note: Oracle Tuxedo Application Runtime for Batch installation reports an error and does not proceed if a previous Oracle Tuxedo Application Runtime for Batch version is detected. You are required to uninstall the previous version Oracle Tuxedo Application Runtime for Batch prior to installing this program.

4. Click *Next* to proceed with the installation. The Sample Install Confirm screen appears.

This screen ask user to choose install samples or not.

5. Choose COBOL compiler to proceed with the installation. The COBOL Compiler Selection screen appears. You can choose any of following options: Micro Focus Cobol, COBOL-IT, or No COBOL.

Note: If you choose "COBOL-IT", you will be required to specify the COBOL Compiler location (the default location is `/opt/cobol-it-64`); If you choose "No COBOL", neither the execution of COBOL programs (`*.gnt`) nor VSAM files will be supported.

6. If the installation process continues, the Pre-Installation Summary screen appears.

   Review the summary information and click *Install* if the information is correct.

   Click *Previous* to go back and modify any input that you want to change.

   Click *Cancel* to terminate the installation process. This is the last chance you have to cancel your installation without copying any files on your target machine.

7. The Install Complete screen, appears when the installation is finished.

   Click *Done* to exit the installation program.

See Also

- [Oracle Tuxedo Application Runtime for Batch Post Installation](#)

Oracle Tuxedo Application Runtime for Batch Console-Mode Install

The following sections describe how to install Oracle Tuxedo Application Runtime for Batch using console-mode installation:

- What Is Console-Mode Installation
- Installing on UNIX Platforms in Console Mode

What Is Console-Mode Installation

Console-mode installation is a text-based method for executing the Oracle Installation program. It can be run only on UNIX systems and is intended for UNIX systems with non-graphical consoles. Console-mode installation offers the same capabilities as GUI (graphical-based) installation.

Installing on UNIX Platforms in Console Mode

Perform the following steps to install Oracle Tuxedo Application Runtime for Batch software in console mode on a certified UNIX platform:

1. Log on as root or another user with sufficient permissions.

2. Execute the installation program in character-based mode:

   ```
   ./installer_name.bin -i console
   ```

3. The installation program runs and prompts you for responses (see Listing 3-1 for an example).

Listing 3-1   UNIX Console Mode Installation Example

```
Preparing to install...
Extracting the JRE from the installer archive...
Unpacking the JRE...
Extracting the installation resources from the installer archive...
Configuring the installer for this system's environment...

Launching installer...

Preparing CONSOLE Mode Installation...

=========================================================================

Oracle Tuxedo Application Runtime for CICS and Batch 12.1.1.0(created with
InstallAnywhere)

-------------------------------------------------------------------------


=========================================================================
Introduction
------------

InstallAnywhere will guide you through the installation of

Oracle Tuxedo Application Runtime for Batch 12.1.1.0.

It is strongly recommended that you quit all programs before continuing with
this installation.

Respond to each prompt to proceed to the next step in the installation.  If
you want to change something on a previous step, type 'back'.

You may cancel this installation by typing 'quit'.
WARNING: "Quitting" creates an incomplete Oracle Tuxedo Application Runtime
for Batch 12.1.1.0 installation. You must re-install Oracle Tuxedo
Application Runtime for Batch 12.1.1.0.
```

```
PRESS <ENTER> TO CONTINUE:


========================================================================

Choose Install Set

-----------------



Please choose the Install Set to be installed by this installer.


  ->1- Full Install

    2- CICS Runtime Install

    3- Batch Runtime Install


ENTER THE NUMBER FOR THE INSTALL SET, OR PRESS <ENTER> TO ACCEPT THE DEFAULT

    :  3


========================================================================
Oracle Home Directory Selection
---------------------------


    1- Choose existing Oracle Home directory
    2- Specify Oracle Home directory

Enter a number: 2
Specify Oracle Home directory: /home/user/oracle


========================================================================
Choose Product Directory

-----------------------
```

```
    1- Modify Current Selection (/home/user/oracle/artbatch12110)

    2- Use Current Selection (/home/user/oracle/artbatch12110)

Enter a number: 2


=========================================================================
      Install Samples?

        ->1- No

          2- Yes
ENTER THE NUMBER OF THE DESIRED CHOICE, OR PRESS <ENTER> TO ACCEPT THE
DEFAULT: 2
=========================================================================
Cobol Compiler Selection

------------------------

Please select the Cobol compiler you are using (Note: Refer to the

install guide if you need to switch the COBOL compiler after the

installation)

->1- Micro Focus Cobol

    2- COBOL-IT

    3- No COBOL
ENTER THE NUMBER OF THE DESIRED CHOICE, OR PRESS <ENTER> TO ACCEPT THE

   DEFAULT: 2
=========================================================================
COBOL-IT Install Dir

-------------------

Please enter the full path of COBOL-IT installation directory.

NOTE: To make sure COBOL-IT is correctly called, please put $JESDIR/bin in

the beginning of PATH.

COBOL-IT Install Dir: (DEFAULT: /opt/cobol-it-64):
=========================================================================
```

```
Pre-Installation Summary
------------------------


Please Review the Following Before Continuing:


Product Name:
        Oracle Tuxedo Application Runtime for CICS and Batch 12.1.1.0


Install Folder:
      /home/user/oracle/artbatch12110


Link Folder:

      /local/home/dxf


Install Set:

      Batch Runtime Install


Required Space:

      80152773 bytes


Available Space:

      22943240192 bytes
PRESS <ENTER> TO CONTINUE:



=========================================================================
Installing...
-------------
=====
Installation Complete
---------------------


Congratulations. Oracle Tuxedo Application Runtime for CICS and Batch
12.1.1.0 has been successfully installed to:
/home/user/oracle/artbatch12110
```

```
PRESS <ENTER> TO EXIT THE INSTALLER:
```

See Also

- Oracle Tuxedo Application Runtime for Batch Post Installation

Oracle Tuxedo Application Runtime for Batch Silent Mode Installation

The following sections describe how to install Oracle Tuxedo Application Runtime for Batch using silent mode installation on UNIX systems:

- Preparing for Silent Mode Installation
- Creating a Silent Mode Installation Template File
- Installing Oracle Tuxedo Application Runtime for Batch on UNIX
- Verifying Silent Mode Installation

Preparing for Silent Mode Installation

Before you install Oracle Tuxedo Application Runtime for Batch, complete the following tasks:

- Verify that enough disk space is available.
- Verify the login ID has proper permission for silent installation.
- Create a template file containing the required keyword settings.

Creating a Silent Mode Installation Template File

To create a template file for use in the silent installation process, you must use keywords as shown in Table 4-1:

Table 4-1 Template File Keywords

For This Keyword . . .	Enter the Following Value . . .
INSTALLER_UI=	The mode of installation with the value of silent; the value is mandatory and unchangeable.
ORACLEHOME=	The full pathname of the Oracle Home directory of your choice.
USER_INSTALL_DIR	The full pathname of the installation directory.
INSTALL_SAMPLES=Y|N	Specifies whether sample applications are installed or not.
OVERWRITE=Y|N or OVERWRITE=y|n	If you are using silent mode installation over an existing version of Oracle Tuxedo Application Runtime for Batch, you must add this line to your template file. Any value other than "Y" or "y" will not overwrite the existing Oracle Tuxedo Application Runtime for Batch version and cancels the installation.
COBOL_COMPILER= MFCOBOL | COBOLIT | NOCOBOL	Choose using COBOL Compiler. MFCOBOL = Micro Focus COBOL compiler, COBOLIT = COBOL-IT compiler, NOCOBOL = No COBOL compiler. The default is MFCOBOL.
COBOLIT_DIR=	The full path name of COBOL-IT directory.

Sample UNIX Template

```
INSTALLER_UI=silent

ORACLEHOME=/home/user/oracle

USER_INSTALL_DIR=/home/user/oracle/artbatch12110

INSTALL_SAMPLES=Y

OVERWRITE=Y

COBOL_COMPILER=MFCOBOL
```

Installing Oracle Tuxedo Application Runtime for Batch on UNIX

To invoke the silent mode installation procedure on a UNIX system, you must do the following steps:

- Create a file containing the required variables set to valid data.

- At a command line prompt go to the directory containing the installer executable.

- Enter the following command:

  `installer_name.bin -f path/installer.data`

  In the previous command, `full_path` is the full path to the variable data file and `installer.data` is the data file containing the required variables.

Verifying Silent Mode Installation

You can verify successful silent mode installation by checking the installation directory to see if all the Oracle Tuxedo Application Runtime for Batch binaries are listed.

If silent mode installation fails, check the following log files:

`$HOME/ARTBatch_silent_install.log`

See Also

- Oracle Tuxedo Application Runtime for Batch Post Installation

Oracle Tuxedo Application Runtime for Batch Post Installation

The following sections describe post-installation tasks after installing Oracle Tuxedo Application Runtime for Batch:

- Understanding the Oracle Tuxedo Application Runtime for Batch Directory Structure
- Installation Verification
- Switch COBOL Compiler
- Uninstalling Oracle Tuxedo Application Runtime for Batch

Understanding the Oracle Tuxedo Application Runtime for Batch Directory Structure

During the Oracle Tuxedo Application Runtime for Batch software installation, all files are decompressed within the installation directory.

Table 5-1 lists brief descriptions of Oracle Tuxedo Application Runtime for Batch directories and files.

Table 5-1 Oracle Tuxedo Application Runtime for Batch Directory and File Structure

Directory Name	Description
`Batch_RT/ejr`	Batch Runtime Execution Engine. It is one of the following directories. Batch_RT/ejr_mf_ora Batch_RT/ejr_mf_db2 Batch_RT/ejr_cit_db2 Batch_RT/ejr_cit_ora Batch_RT/ejr_nocbl
`ejr*/COBOL_MF`	Batch Runtime Execution Engine components depending on MicoFocus COBOL.
`ejr*/COBOL_IT`	Batch Runtime Execution Engine components depending on COBOL-IT.
`ejr*/COBOL_NO NE`	Batch Runtime Execution Engine components independent of COBOL.
`ejr*/COMMON`	Batch Runtime Execution Engine common components.
`ejr*/CONF`	Batch Runtime Execution Engine configuration files.
`ejr*/DB_ORACL E`	Batch Runtime Execution Engine components depending on Oracle Database.
`ejr*/DB_DB2LU W`	Batch Runtime Execution Engine components depending on DB2 Database.
`ejr*/GENERATI ON_FILE`	Batch Runtime Execution Engine components managing the generation groups.
`ejr*/GENERATI ON_FILE_DB`	Batch Runtime Execution Engine components managing the generation groups, based on DB.
`ejr*/SAMPLE`	Batch Runtime Execution Engine samples. Optional install.
`ejr*/SORT_Mic roFocus`	Batch Runtime Execution Engine components depending on MFSORT.
`ejr*/SORT_Syn cSort`	Batch Runtime Execution Engine components depending on SyncSort.

Table 5-1 Oracle Tuxedo Application Runtime for Batch Directory and File Structure

Directory Name	Description
`ejr*/SORT_MFS yncSort`	Batch Runtime Execution Engine components depending on MFSyncSort.
`ejr*/SORT_CIT`	Batch Runtime Execution Engine components depending on CITSORT.
`bin`	Batch Runtime TuxJES binaries.
`include`	Batch Runtime TuxJES header files.
`lib`	Batch Runtime TuxJES libraries.
`locale`	Batch Runtime TuxJES locales.
`sample`	Batch Runtime TuxJES samples. Optional install.
`udataobj`	Batch Runtime TuxJES facilities.
`tools`	Batch Runtime tools.
`jre`	Java Runtime used for install/uninstall.
`inventory`	Oracle product inventory directory.
`uninstaller`	Product uninstaller.

Installation Verification

Sample applications are provided for Batch Runtime Execution Engine, Batch Runtime TuxJES respectively, which can be used to verify the installation and also to demonstrate the configuration. The Readme file in the samples provides guidance on how to execute the samples.

Before executing Oracle Tuxedo Application Runtime for Batch, Oracle recommends that you set umask value as strict as possible.

Switch COBOL Compiler

If you didn't choose "COBOL-IT" as the default COBOL compiler during installation, and want to switch to COBOL-IT afterwards, you need to add one extra symbol link. For example, if your COBOL-IT is installed at /opt/cobol-it-64, and Oracle Tuxedo Application Runtime for Batch is installed at /home/user/oracle/artbatch12110, the command you need to run is:

```
ln -s /opt/cobol-it-64/bin/cobcrun
/home/user/oracle/artbatch12110/Batch_RT/bin/cobrun
```

Uninstalling Oracle Tuxedo Application Runtime for Batch

- Uninstalling Oracle Tuxedo Application Runtime for Batch in GUI-Mode

- Uninstalling Oracle Tuxedo Application Runtime for Batch in Console-Mode

Uninstalling Oracle Tuxedo Application Runtime for Batch in GUI-Mode

To uninstall Oracle Tuxedo Application Runtime for Batch software using GUI-Mode, do the following:

ON UNIX:

Execute the command `./uninstall`

1. The Oracle Tuxedo Application Runtime for Batch Uninstaller screen appears.

2. Click *Uninstall* to start uninstalling Oracle Tuxedo Application Runtime for Batch. When the process is complete, the screen is displayed.

   Note: If the uninstalled features include Batch Runtime, the `BatchRT.conf` configuration file located in the `ejr/CONF/` directory is backed up as `$ORACLEHOME/.BatchRT.conf.bak`.

3. Click *Done* to complete the uninstall.

Uninstalling Oracle Tuxedo Application Runtime for Batch in Console-Mode

To uninstall Oracle Tuxedo Application Runtime for Batch on a UNIX platform using console mode you must do the following:

1. Start the uninstallation program with the following command:

   ```
   ./uninstall -i console
   ```

   Listing 5-1 displays an Oracle Tuxedo Application Runtime for Batch component uninstallation.

Listing 5-1   UNIX Uninstallation Example

```
------------------------------------

About to uninstall...

        Oracle Tuxedo Application Runtime for CICS and Batch 12c

This will remove features installed by InstallAnywhere.  It will not remove

files and folders created after the installation.

PRESS <ENTER> TO CONTINUE:

========================================================================

Uninstall Options

----------------


ENTER THE NUMBER FOR YOUR CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT:


  ->1- Completely remove all features and components.

    2- Choose specific features that were installed by InstallAnywhere.


Please choose one of the following options:


========================================================================

Uninstalling...

--------------

...*
*
************************
***********************
***********************
```

```
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=======================================================================
Uninstall Complete
------------------

All items were successfully uninstalled.
```

Note: If Batch Runtime is uninstalled, the following message is displayed:

Please find backup of `Batch_RT/ejr/CONF/BatchRT.conf` at
`/home/user/oracle/.BatchRT.conf.bak`

Supported Platforms

Table A-1 lists Oracle Tuxedo Application Runtime for Batch 12*c* Release 1 (12.1.1) supported platforms.

Table A-1 Oracle Tuxedo Application Runtime for Batch 12*c* Release 1 (12.1.1) Supported Platforms

Platform	GA Port/ Post-GA Port	OS EOL Date
IBM AIX 6.1 (64-bit) on IBM PowerPC	GA	TBD
IBM AIX 7.1 (64-bit) on IBM PowerPC	GA	TBD
Oracle Enterprise Linux 5.6 (64-bit) on x86-64	GA	TBD
Oracle Linux 5.6 (64-bit) on Exalogic 2.0	GA	TBD
Red Hat Enterprise Linux 5.6 (64-bit) on x86-64	GA	TBD
Novell SUSE Linux Enterprise Server 11 (64-bit) on x86-64	GA	TBD
Oracle Solaris 10 (64-bit) on SPARC	GA	TBD
Oracle Solaris 11 (64-bit) on SPARC	GA	TBD

Supported Platform Data Sheets

IBM AIX 6.1 (64-bit) on IBM PowerPC

The following section lists the software requirements for IBM AIX 6.1 (64-bit) on IBM PowerPC:

- Oracle Tuxedo 12c Release 1(12.1.1) or later
- MicroFocus COBOL 5.1/COBOL-IT Enterprise Edition 3.3.13
- IBM XL C/C++ Enterprise Edition V10 or V11 for AIX or later compatible versions
- Perl v5.8.2 (aix-thread-multi option is required)
- UDB v9.7
- Korn shell complies with ksh88
- Oracle RDBMS 11gr2

IBM AIX 7.1 (64-bit) on IBM PowerPC

The following section lists the software requirements for IBM AIX 7.1 (64-bit) on IBM PowerPC:

- Oracle Tuxedo 12c Release 1(12.1.1) or later
- MicroFocus COBOL 5.1/COBOL-IT Enterprise Edition 3.3.13
- IBM XL C/C++ Enterprise Edition V10 or V11 for AIX or later compatible versions
- Perl v5.8.2 (aix-thread-multi option is required)
- Korn shell complies with ksh88
- Oracle RDBMS 11gr2

Oracle Enterprise Linux 5.6 (64-bit) on x86-64

The following section lists the software requirements for Oracle Enterprise Linux 5.6 (64-bit) on x86-64:

- Oracle Tuxedo 12c Release 1(12.1.1) or later

- MicroFocus COBOL 5.1/COBOL-IT Enterprise Edition 3.3.13

- gcc 4.1.2

- Perl v5.8.8

- UDB v9.7

- Korn shell complies with ksh88 (for example, PD KSH v5.2.14 or above)

- Oracle RDBMS 11gr2

Oracle Linux 5.6 (64-bit) on Exalogic 2.0

The following section lists the software requirements for Oracle Linux 5.6 (64-bit) on Exalogic 2.0:

- Oracle Tuxedo 12c Release 1(12.1.1) or later

- MicroFocus COBOL 5.1/COBOL-IT Enterprise Edition 3.3.13

- gcc 4.1.2

- Perl v5.8.8

- UDB v9.7

- Korn shell complies with ksh88 (for example, PD KSH v5.2.14 or above)

- Oracle RDBMS 11gr2

Red Hat Enterprise Linux 5.6 (64-bit) on x86-64

The following section lists the software requirements for Red Hat Enterprise Linux 5.6 (64-bit) on x86-64:

- Oracle Tuxedo 12c Release 1(12.1.1) or later

- MicroFocus COBOL 5.1/COBOL-IT Enterprise Edition 3.3.13

- gcc 4.1.2

- Perl v5.8.8

- UDB v9.7

- Korn shell complies with ksh88 (for example, PD KSH v5.2.14 or above)

- Oracle RDBMS 11gr2

Novell SUSE Linux Enterprise Server 11 (64-bit) on x86-64

The following section lists the software requirements for Novell SUSE Linux Enterprise Server 11 (64-bit) on x86-64:

- Oracle Tuxedo 12c Release 1(12.1.1) or later

- MicroFocus COBOL 5.1/COBOL-IT Enterprise Edition 3.3.13

- gcc 4.3.2

- Perl v5.8.8

- Korn shell complies with ksh88 (for example, PD KSH v5.2.14 or above)

- Oracle RDBMS 11gr2

Oracle Solaris 10 (64-bit) on SPARC

The following section lists the software requirements for Oracle Solaris 10 (64-bit) on SPARC:

- Oracle Tuxedo 12c Release 1(12.1.1) or later

- MicroFocus COBOL 5.1/COBOL-IT Enterprise Edition 3.3.13

- C/C++ Sun Studio 12

- Perl v5.8.4

- Korn shell complies with ksh88 (for example, PD KSH v5.2.14 or above)

- Oracle RDBMS 11gr1

Oracle Solaris 11 (64-bit) on SPARC

The following section lists the software requirements for Oracle Solaris 11 (64-bit) on SPARC:

- Oracle Tuxedo 12c Release 1(12.1.1) or later

- MicroFocus COBOL 5.1/COBOL-IT Enterprise Edition 3.3.13

- C/C++ Sun Studio 12

- Perl v5.8.4

- Korn shell complies with ksh88 (for example, PD KSH v5.2.14 or above)

- Oracle RDBMS 11gr2