

Oracle® Healthcare Transaction Base

Installation Guide

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Oracle Healthcare Transaction Base Installation Guide, Release 6.1.1

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Preface

Welcome to the Installation Guide for Oracle Healthcare Transaction Base (HTB)
Version 6.1.1

Audience

This document is intended for an audience of Oracle Applications DBAs who plan to install the Oracle Healthcare Transaction Base (HTB) either locally or through a VPN connection to the servers. It is assumed that the users of this document are proficient in the installation and patching processes of Oracle E-Business Suite.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

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Related Documents

The following set of documents have been referenced in this installation guide. All of these documents should be downloaded or printed from My Oracle Support and used as your guide during all E-Business Suite and HTB installations. You will find that you will add your own comments and corrections to these documents. Should you find errors, inconsistencies or missing information in any of these documents, please log an SR via My Oracle Support so that the documentation error can be corrected. It is recommended that you return to My Oracle Support and check for updates to these documents on a regular basis.

Note that you may obtain the following documents by either downloading these from *edelivery.oracle.com* or from the appropriate media (CD or DVD) in the physical media pack. For downloading a document from *My Oracle Support*, use My Oracle Support Article ID to search for the particular document.

Oracle E-Business Suite Documentation Library Release 12.1

Complete documentation at http://docs.oracle.com/cd/B53825_08/current/html/docset.html

Installation and Upgrade References:

Oracle E-Business Suite Installation Guide: Using Rapid Install at http://docs.oracle.com/cd/B53825_08/current/acrobat/1210aig.pdf

Upgrading Oracle E-Business Suite Release 12.1.3: My Oracle Support Article ID: 1175553.1

Interoperability Notes Oracle E-Business Suite Release 12 with Oracle Database 11g Release 2: My Oracle Support Article ID: 1058763.1

Upgrading to the Latest OracleAS 10g 10.1.3.x Patch Set in Oracle E-Business Suite Release 12: My Oracle Support Article ID: 454811.1

Integration and Other Product References:

Oracle Healthcare Transaction Base Javadoc. This document describes the HTB Application Programming Interface. It defines all of the Classes and Interfaces included in the release.

Oracle Healthcare Transaction Base Implementation Guide. This document details all of the steps required to implement the variable functional components of the HTB Platform. Once analysis has been performed to determine which parts of the HTB Platform will be utilized, this document will detail the prerequisites and process steps needed to implement the functionality.

Oracle Healthcare Transaction Base Programmer's Guide. This document is organized around code samples that address common setup functions and application features, with emphasis on application functionality typically used in healthcare settings. The examples include code samples targeted to developers writing code for HTB setup and application development.

Installation Overview

This document includes the installation and initial setup of Oracle Healthcare Transaction Base Version 6.1. The approach of this document is to assist the installer by asking relevant questions and, where necessary, providing answers to these questions to help finalize the environment details and content required during and after the installation.

Throughout the document there are references to other information available to provide further details on the process steps and tools. If you have any questions or concerns about any of the process steps in this document, open a Service Request via My Oracle Support. This lets us resolve your questions and concerns as well as provides feedback and improvement on this document.

This section contains the following topics:

- [Software Requirements](#)
- [Installation Outline](#)

1.1 Software Requirements

The following list details the required software and versions for the installation of HTB version 6.1.1 (R12.HC_PFA). Each of these products is available for download from the Oracle E-Delivery Web site or the Oracle Technology Network. Note that HTB and Oracle E-Business Suite are supported on many platforms. You must consult the Certify tab on My Oracle Support for your specific operating system and hardware platform before installing any Oracle products.

- Operating System that supports Oracle E-Business Suite 12.1.1 (see My Oracle Support Certify pages)
- Oracle E-Business Suite Release 12.1.1
- Oracle Healthcare Transaction Base Version 6 (R12.HC_PFA)
- Oracle Applications Server 10g Release 3 Patch Set 5 J2EE and WebCache mid-tier components (10.1.3.5.0 via patch 8626084)

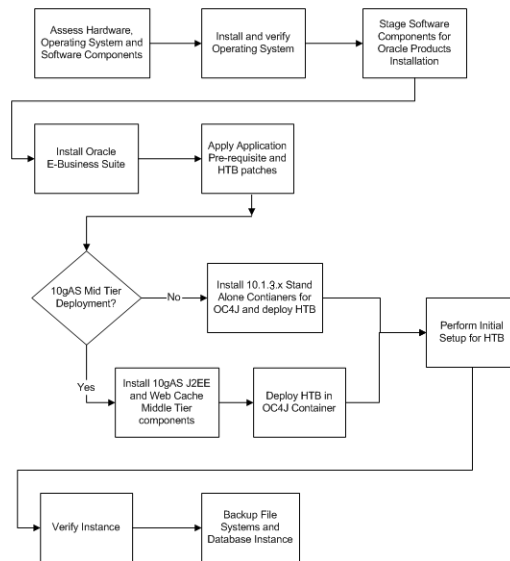
The Oracle Applications support strategy permits minor release upgrades to be performed. For example, the Oracle Applications Server 10g Release 3 product is release number 10.1.3.X, where X is the patch set or rollup version. For this reason, at the time of release, Oracle Application Server 10gAS version 10.1.3.5.0 is supported with Oracle Healthcare products. Oracle Healthcare products are tested and certified with specific versions of the Oracle Applications Technical Stack components as well as the Oracle Applications Server components.

You can refer to My Oracle Support Certification Matrix for Healthcare products prior to initiating any upgrades. Once a new major release is supported with Oracle Healthcare products, an announcement will be made that will supersede the comments made here. The same is true for database releases. The 11gR1 database is release 11.1.0.x. Oracle Applications E-Business Suite version 12.1.1 is installed with a base database release level 11.1.0.7. The maximum supported release of Oracle E-Business Suite release 12 is 12.1.3.

1.2 Installation Outline

The following flow Figure 1.1 outlines the steps that should be followed during the installation of the Healthcare Transaction Base (HTB) product. Optional steps are shown with a dotted line border. The deployment of HTB in a 10gAS mid-tier container is the recommended approach for test and production servers. For development instances there is less overhead if you use a stand-alone installation of the OC4J containers. If you are dealing with a single or only a limited number of development instances, you may want to consider using the 10gAS J2EE and Web Cache installation for the deployment of HTB. Note that this does not require a full installation of the 10g Application Server and thus does not require the INFRA database.

Figure 1–1 Installation Flow



Preparing for Installation

There are certain preliminary questions to be raised by the installer of HTB to the customer and the customer's IT staff. It is essential that these are addressed before the actual installation to ensure that HTB is installed properly and operates as expected by the customer. The answers to the questions help you determine which products you need as well as help resource planning and scheduling.

This section contains the following topics:

- [Operating System and Platform Details](#)
- [Additional Software and Product Components](#)

2.1 Operating System and Platform Details

The operating system and hardware platform are important details to plan for. Performance and upgradability are factors that are affected by this planning. All decisions may affect the support of your implementation so it is always important to review all the decisions by consulting the Certify tab on My Oracle Support to assure that Oracle E-Business Suite and your database are supported. HTB is an E-Business Suite application and thus is supported in accordance with the 12.1.1 release of E-Business Suite.

The following questions are intended to help with the selection of your operating system and server choices. If in doubt, it is always good to consult your Sales Representative for help in making server and operating system choices.

1. Is this a Development, Test or Production installation? When performing an installation there are certain aspects of the environment and configuration that must be taken into account during the install. Some examples are the ability to install multiple products onto a single server for a development environment. For the same set of products in a production environment there may be requirements for multiple servers with a separation of components. Examples are having the database on one server, HTB on another and user applications or Web Services on another. A sanity check should always be performed prior to any installation to assure that the proper configuration is being installed. Oracle recommends not to evaluate the instance or make changes once the installation is complete or even under way.
2. Is VPN access available and tested by customers IT staff? Most often the installation and configuration of products are performed remotely. It is the customer's responsibility to assure that remote access is available for all of the tasks required. Testing of VPN access from within a customer's environment hide problems in IP and TCP communication some times. This remote access is also

required for support and troubleshooting purposes. Note that for remote installations no work can be performed until remote access is available.

3. What is the hardware configuration? It is very important to check that the hardware is supported for the Oracle products being installed. Check if the platform is supported for Oracle E-Business Suite 12.1.1 using the Oracle Certify page, available from the My Oracle Support Web site at <https://metalink.oracle.com>. This site indicates support by processor manufacturer, processor type (i.e. 32 bit vs. 64 bit) and Operating System. It is important to ensure adequate memory and CPU for the required performance. Sizing requirement support can be obtained by opening a Service Request (SR) through the My Oracle Support Web site. This also takes into account the number of servers. A test environment usually mimics a production environment but with a somewhat smaller amount of resources. Typically, you will have a minimum of two servers in a production install. One will be for the database server and the other for the HTB server. If you are deploying additional applications or plan on performing integration processes, you will need to consider additional servers for these tasks. If not additional servers then definitely additional CPUs, memory, and disks. Disk and memory are always the lacking factor and take time to correct. Consult the *Installing Oracle Applications: A Guide to Using Rapid Install, Release R12 (12.1.1)* for information on CPU, memory, and disk requirements. The document is available at:
http://docs.oracle.com/cd/B53825_08/current/acrobat/121loaig.pdf.
4. What OS is required? In addition to checking that the OS is supported via the My Oracle Support Certify page, it is important to verify that you have the correct version of all software needed for the install. Certain operating systems may have additional kernel patch requirements. Consult the *Oracle Applications Installation Update Notes, Release R12 (12.1.1)* document for specific operating system details. The document is available from My Oracle Support Article ID: 761566.1.
5. Is the OS installed? This is typically the activity performed by the IT Staff of the Customer/Partner. Verify that the OS installed on each server is supported by the components being installed (for example, HTB, E-Business Suite 12.1.1, Application Server, and Database).
6. Do the servers have access to the Internet? This enables the installation team to download the required patches from My Oracle Support directly to the servers. This in turn ensures faster installations as time to copy large files or time to FTP those files from a third source can be avoided. When access for downloads is limited, direct access to the hardware may be required to install patches or stage software.
7. Is Oracle software staged? This can be done in advance, especially if you have already acquired HTB related media. Even in case of e-delivery, you can leverage customer/partner staff to ftp and stage the software, as it involves copy and FTP tasks.
8. How much disk space is available on each node? Checks should be made that sufficient disks exist for software, data, backup, and growth. If insufficient disk space is available, an issue must be raised and corrected prior to the installation. Sizing requirement support can be obtained by opening a Service Request (SR) through the My Oracle Support Web site.
9. Is this a single-node or multi-node install? It depends on hardware layout. Multiple node installations are typically longer as many patches have to be applied on all the nodes. Note that if HTB is the only Oracle application being installed there is no need to split the E-Business Suite application node across

machines. The Concurrent Manager can be installed along with the rest of the applications tier. This greatly reduces the amount of patching required when performing a multi-node installation. There are several configurations possible. Because of the minimal load on the E-Business Suite apps tier, all of the E-Business Suite can reside on the database server. The apps tier can be copied or NFS mounted to the HTB server. For assistance in determining the proper layout of your installation, raise a Service Request (SR) through the My Oracle Support Web site.

10. Is Oracle E-Business Suite currently available? This question is valid in case of customers/partners who already use E-Business suite or those who have already installed the product from the CDs. This enables the installer to accurately apply required patches, which vary based on E-Business Suite version. Note that a current Oracle Applications customer may have versions of patches that differ from those mentioned in HTB documentation. Care must be taken in the evaluation of the patching and what impact they will have on HTB and the existing applications.
11. What database release is required? The E-Business Suite product is installed with a 11.1.0.7.0 version of the 11gR2 database. Check the latest certified RDBMS versions supported for Oracle E-Business Suite 12.1.1 using the Oracle Certify Web Site, available from My Oracle Support Web site.
12. Is RAC required? Special considerations must be made if RAC is included in installation. If a RAC database is required a DBA familiar with installing E-Business Suite with a Real Application Clustered database should be consulted prior to upgrading the database to 11gR2. It will also be important to determine the number of database nodes that will be needed. For information on configuring HTB with RAC, consult the *Using Oracle 10g Release 2 Real Application Clusters and Automatic Storage Management with Oracle E-Business Suite Release 12* on My Oracle Support Article ID: 388577.1
13. Is SSO required? Additional patches and configuration including Oracle Identity Management are required with a Single Sign On installation. You must decide whether only your application uses SSO or if the user will also be propagated to the HTB Repository. For information on the configuration of Single Sign-On with HTB, refer to *Appendix E - Using Oracle Healthcare Transaction Base with SSO/JAAS Authentication*, in *Oracle Healthcare Transaction Base Programmer's Guide*.
14. Are any additional languages required? If any additional languages are required there will be additional patch requirements. For each patch that is downloaded, you must check if a language patch is also available for that patch number. This will show up as language specific patches under the same number in My Oracle Support.
15. Is MLS is required? If Oracle Multiple Language Support is required, the additional language patches must be applied and the default language must be identified. The MLS configuration must be done as part of installation. For more information on configuring MLS, see ETS Multiple Language Support section of the *Oracle Healthcare Transaction Base Programmer's Guide*. Note that the Programmer's Guide is in HTML format and is downloaded along with the *Oracle Healthcare Transaction Base Javadoc*.
16. What version of HTB is being installed? An evaluation must be done if anything other than the most recent version of HTB is being installed. If an installation is being planned for the future and a newer version of HTB is available at the time of the installation, an analysis should be done to determine if the newer version of the product should be installed. Some problems may have already been fixed in the new release. Staying with the older release will result in lost time from

patching or troubleshooting on the older version. Oracle recommends you to stay up with the most recent version.

17. Is this an initial HTB installation or an upgrade from a previous release? If you are upgrading from a major release of Oracle Applications E-Business Suite with HTB to the next major release of Oracle Applications E-Business Suite with HTB.
18. Will HTB be deployed on 10gAS mid-tier? Oracle recommends that a 10gAS mid-tier Enterprise edition installation be used over a stand-alone OC4J for deploying applications and instance management. The mid-tier is available as the 10gAS J2EE and Web Cache components. During the installation using the Oracle Universal Installer, you will select the J2EE and Web Cache component for installation. An entire 10g Application Server installation is not required for the deployment and management of HTB. If you are deploying your own applications you may need the full installation, but you must analyze this beforehand.

2.2 Additional Software and Product Components

Apart from the operating system and product version requirements for HTB, there may be additional components of products that need to be installed or evaluated for the implementation infrastructure. The following questions are intended to help you with these additional product requirements. Note that if additional products are required, you must also take into account any disk, memory, and CPU resources that they may consume.

1. Will HL7v3 messaging be required? It may entail the installation of other components such as B2B and BPEL. This document does not cover the B2B and BPEL components. It should be known that if the BPEL Process Manager is included in the implementation, it must reside on its own server for performance reasons.
2. Is HTB Gateway needed? If HL7v3 messaging is required it is possible that the sending system or interface engine will need an HL7 MLLP interface as opposed to being able to making direct calls to the HTB Java API layer. If required, HTB Gateway should be installed, configured, and tested with IMP. When sending a message through HTB Gateway, a Missing SenderConfig error is validation that HTB Gateway successfully connected to IMPService. HTB Gateway is delivered with HTB version 5.3. The additional resources needed for both disk and memory will need to be addressed, as this is a separate process that interfaces with the HTB. It can reside on the same or a separate server from HTB.
3. Are additional Oracle Integration products required? This question is specifically around a requirement for Oracle B2B and the Oracle BPEL processing engine. This document does not cover the B2B or BPEL components. It is only identifying a need for additional products. If BPEL and B2B are required, a full 10gAS install with the INFRA database will be needed. You need to analyze which version of 10gAS is required for each product. Installation of 10.1.3 currently requires a separate installation from HTB. If the 10.1.3 SOA Suite is being installed, Oracle recommends that the 10.1.3.5 version or higher be installed.

Installing Oracle Healthcare Transaction Base

Depending on the installation flavor (primarily OS/Database/E-biz suite, and HTB version) the list of patches varies. The following information details an HTB version 6.1.1 (R12.HC_PFA) installation. It is always important to perform an analysis of the patches according to the Readme document delivered with the products you are installing.

You can locate all the information and reference links, related to Oracle E-Business Suite (12.1.1) installation and documentation, using My Oracle Support Article ID: 761566.1.

Note: For the patching process it is sometimes customary for installers to follow the links in My Oracle Support to new patches that supersede those included as prerequisites in the Readme of an Oracle product. It is very important that any such action be taken only when the installer has direct knowledge that the superseding patch should be applied. An installer should never move to a newer version of a patch that is specifically called out by a Readme document because of the notes displayed within My Oracle Support. Doing so may jeopardize the installation of HTB.

This section contains the following topics:

- [Validating OS Installation](#)
- [Installing Oracle R12 E-Business Suite using Rapid Install](#)
- [Patching Oracle R12 Instance](#)
- [HTB Product Patch Application](#)

3.1 Validating OS Installation

Verify that your operating system is installed according to the requirements of *Oracle Applications: Installation Guide: Using Rapid Install* document at http://docs.oracle.com/cd/B53825_01/current/acrobat/1210aig.pdf and *Oracle Applications Release Notes, 12.1.1* document (My Oracle Support Article ID: 761566.1). Both have specific OS requirements that must be met prior to the installation of Oracle E-Business Suite using Rapid Install (rapidwiz). For example, when installing Red Hat Linux, include Legacy Software Development and X Software Development packages.

Once the OS installation is complete, refer to *Oracle Applications Release Notes, 12.1.1* document (My Oracle Support Article ID: 761566.1) for additional package and configuration requirements for the installation of the 12.1.1 Oracle Applications E-Business Suite. Do not skip any OS patches that must be applied prior to the installation of E-Business Suite. Oracle has published patches for compatibility with certain operating system versions.

3.2 Installing Oracle R12 E-Business Suite using Rapid Install

If you are upgrading your Oracle Applications E-Business Suite Release from release 11i with HTB version 5 to release R12 with HTB version 6.1.1, refer to the next section *Upgrading Oracle Applications with HTB*.

Install 12.1.1 Oracle Applications E-Business Suite from a local or NFS mounted staged area. Note that once the installation is complete, this staged area can be reclaimed for additional space. Refer to *Installing Oracle Applications: A Guide to Using Rapid Install* document for the Rapidwiz installation. If you do not have a staged area, go to otn.oracle.com and search for the R12 Oracle E-Business Suite 12.1.1 download. If you loaded your staged area from CDs, verify that you have version 12.1.1. or later of Rapidwiz. If you have an older version or you are unsure of your version, you must download the Start Here CD set from <http://edelivery.oracle.com/> and replace these files in your staged area. Perform the following steps to download newer version of the RapidWiz Start Here CD from <http://edelivery.oracle.com/>. Note that a script-enabled browser is required for this page to function properly.

1. Select **English > Continue**
2. Select: Product Pack: **Health SciencesPlatform**: For example, Linux x86
3. Click **Go**
4. Select **Oracle Healthcare 6.1.1 Media Pack for Linux x86**
5. Click **Continue**
6. Click **Download** for: Oracle Applications Release 12.1.1 Rapid Install Start Here (Download all required CDs based on 12.1.1 product installation requirements at your site)

The E-Business Suite installation can be performed on a single or multiple node configuration. The Rapidwiz wizard walks you through the process. Note that you should never use the same user for both the applications and database nodes, regardless of the type of installation configuration. Oracle Inventory must be accessible by these users during HTB installation. There are other considerations as well during the setup and use of the environments.

The users for the E-Business Suite installation are recommended to be `appl<database name>` and `ora<database name>` with a group of `dba`. Take due care in planning the appropriate user and group configuration so that you do not have read/write access problems during your installations. One possible compromise is to create an `appl<database name>` user for Oracle Applications and an oracle user for the database. The oracle user can belong to multiple groups so assigning both `dba` and `oinstall` may help you avoid problems. Always make sure you back up your `oraInventory` and related files so that you can recover the previous inventory if required.

3.3 Patching Oracle R12 Instance

Once the Oracle E-Business Suite installation is complete, you should be able to log in to applications on the HTTP port defined. By default, the port number is 8000. Verify that the installation is complete and Oracle Apps is up and running before continuing with the patching process. Once verified, shut down Oracle Applications by running the `adstpall.sh` script, passing the APPS user and password used during the installation (apps by default).

When loading patches for a product or prerequisites for a product you must take into whether you require any additional language support. If you are implementing Multiple Language Support in HTB product, you should also download and apply all necessary language patches for the languages that you registered while installing Oracle E-Business Suite.

This section contains the following topics:

- [Upgrade Database](#)
- [Upgrade E-Business Suite](#)
- [Applications Technical Stack Patches](#)

3.3.1 Upgrade Database

The 12.1.1 staged software installs 11.1.0.7 version of the Oracle Database. Upgrade your database to 11.2.0.3 using My Oracle Support Article ID: 1058763.1.

3.3.2 Upgrade E-Business Suite

Upgrade your E-Business Suite 12.1.1 to 12.1.3 using My Oracle Support Article ID: 1175553.1.

3.3.3 Applications Technical Stack Patches

The 12.1.1 staged software installs a 11.1.0.7.0 version of the Oracle Application Server (10gAS) software referenced by environment variable `IAS_ORACLE_HOME`. For HTB version 6.1.1, Oracle requires the Oracle Applications Technical Stack component referenced by `IAS_ORACLE_HOME` to be upgraded to 10.1.3.5.0. All Oracle Applications E-Business Suite Release 12 certification levels can be found on My Oracle Support using navigation:

Certify > View Certifications by Product > E-Business Suite > E-Business Suite Release 12 > Select your platform > Submit

Find your Application Server platform combination and select the Other column link to review all Applications Tier components.

To upgrade your E-Business Suite Release 12 Applications Server Technical Stack to version 10.1.3.5.0, follow the following My Oracle Support Article ID 454811.1.

3.4 HTB Product Patch Application

You can use `adctrl` application to control the workers, if you have a worker that needs to be restarted or stopped. HTB is an off-cycle product that must be spliced in Oracle Applications. If you have already installed HTB and are only upgrading to the latest HTB release, you do not need to re-splice the three HTB related schemas into your Oracle Applications database instance. If you are upgrading from Oracle Applications Release 11i to Oracle Applications Release 12 with the Healthcare Product Suite, you

need to run the splice patches to install the product directory structure into the newly created 12.1.1 APPL_TOP.

This section contains the following topics:

- [Create HTB Product Schemas](#)
- [Apply HTB Version 6.1.1 Patches](#)
- [Apply HTB Version 6.1 One-Off Patches](#)
- [HTB Post Patch Application Steps](#)

3.4.1 Create HTB Product Schemas

Using adsplice, create three required schemas, CTB, HCT, and HCP, using the three patches from the table below. Note that if you do not have these patches, you need to open a Service Request in My Oracle Support and request a password to download them.

See Also:

[Running the adsplice Utility](#) on page 1 for information on running adsplice.

Oracle Applications E-Business Suite release 12.1.3 utilizes the Oracle Applications Tablespace Model (OATM). If you are upgrading from a previous release of Oracle Applications, Oracle recommends that you migrate to the OATM model as detailed in My Oracle Support Article ID: 258325.1

Table 3–1

Patch Number	Patch Description
5497423	ADSPLICE FILES FOR ORACLE APPLICATIONS PRODUCT (CTB)
5497469	ADSPLICE FILES FOR ORACLE APPLICATIONS PRODUCT (HCT)
5497505	ADSPLICE FILES FOR ORACLE APPLICATIONS PRODUCT (HCP)

3.4.2 Apply HTB Version 6.1.1 Patches

The post installation instructions for these patches are included in the sections that follow. Take due care in reviewing the log files from this large patch as many of the objects are named such that the word "error" is included.

Table 3–2 HTB Version 6.1 Patches

Patch Number	Patch Description
6446398	ORACLE HEALTHCARE FAMILY PACK A (R12.HC_PFA)
14376817	R12.HCT.A.DELTA.3
14317443	R12.CTB.A.DELTA.3
14079734	OPTIMIZE ACT RELATIONSHIP CRITERIA BY INCLUDING DENORMALIZED COLUMNS FROM ACT (Refer to patch readme in My Oracle Support Note ID: 1459776.1, for implementing associated pre-patch data model changes)

3.4.3 Apply HTB Version 6.1 One-Off Patches

HTB one-off patches are released to My Oracle Support as they become available. The decision to apply a one-off patch should depend on the bug reported and its fix in the product. You must also consider that a Rollup (RUP) patch will contain all one-off patches from the previous releases. Review the HTB About Doc for the list of one-offs already included in the current HTB release. All one-off patches should be considered in your environment. Oracle recommends you to maintain a backup of the full

environment prior to the application of patches. This not only lets you to quickly and easily revert to a pre-patched state, but also assures that you have a sufficient backup if a problem occurs during patching.

Each patch should be reviewed to determine whether any post patch application steps are required. Any post patch steps must be completed according to the Readme requirements. It is possible to merge CTB one-off patches together so that they can be applied via a single unified driver using adpatch.

Perform the following steps to determine which one-off patches are required:

1. Log in to My Oracle Support and navigate to **Patches & Updates** tab.
2. Select **Advanced Search** link in the Patches section.
3. Select the Product Family **Healthcare Suite**.
4. Delete release **Applications R12**.
5. Add release **Applications R12**.
6. Select Patch Type **Any**.
7. The **Updated in last** field should be populated so that all patches since your last search are included. If this is the first application of one-off patches, you should calculate the number of days, weeks or months according to the official release date of HTB version 6.1
8. Select **Go** and the list of patches is returned from the query in reverse chronological order.
9. Each patch must be reviewed to determine whether it should be applied or not. The **View Readme** icon on the returned table lets you view Readme file delivered with the patch. Only patches that include R12.HC_PF.A Rollup 3 as a prerequisite should be applied. Note that one-off patches which have been released for prior versions of HTB should not be applied on top of your RUP3 instance. You may also see patches for other Healthcare Suite products such as Oracle Life Sciences Data Hub. These non-HTB related patches should not be applied. They also do not include R12.HC_PF.A Rollup 3 as a prerequisite.
10. Merge this group of new HTB version 6.1 one-off patches together and apply them using adpatch.
11. Review the log file and correct any errors or failures as necessary. If you are unable to determine the correct course of action, log a Service Request via My Oracle Support.

Once you have run this query the first time, you can set the Updated in last field to a value such as 30 days and save the query for future use. This lets you return to the Patches & Updates tab and select the Saved Searches link. If run on a regular basis you can keep a track of which patches are available for your HTB version 6.1.1 instances.

To merge several HTB one-off patches together and apply all of them as a single patch, do the following:

1. Create a directory and unzip all the HTB one-off patches into that directory.
2. Create a target directory in which to store the merged patch.
3. Merge all the patches into a single universal patch using the following admrgpch command: `admrgpch -s <source directory> -d <target directory> -merge_name <name of merged patch>` Oracle recommends that you provide a name for the merged patch that includes both the string *HTB* and the date of the merge, so

that the later review using the Oracle Applications Manager will differentiate this patch from other merged patches.

You can now apply the new merged patch from the target directory using the adpatch utility.

Apply patch number 9814493 and 9814032.

3.4.4 HTB Post Patch Application Steps

Once all patches are applied and all logs are reviewed and verified, turn off maintenance mode using adadmin. This enables normal operation of the R12 Oracle Applications Suite. The information that follows is taken from the HTB About Doc and Readme files and must be followed carefully. If you have any problems after completing these steps, review each step and verify that you have successfully completed its requirements. If you deviate from these steps, ensure that you complete the required configuration.

This section contains the following topics:

- [Allow Remote Clients to Connect to Database](#)
- [Regeneration of Jar Files](#)
- [Make HTB Application Menus Available to Oracle Applications](#)
- [Start Oracle Applications](#)

3.4.4.1 Allow Remote Clients to Connect to Database

The initial application of a multi-node installation via Rapidwiz restricts access to the database from any other servers. If you want to connect from your desktop or laptop using a GUI admin or query tool such as Oracle SQL Developer, perform the following process steps on your database server while logged in as the oracle database user:

1. Change directory to `${ORACLE_HOME}/network/admin/${ORACLE_SID}_${HOSTNAME}`.
2. Update the `sqlnet.ora` file by changing `tcp.validnode_checking` from yes to no.

3.4.4.2 Regeneration of Jar Files

To regenerate outdated or missing jar files without force option:

1. Run adadmin
2. From the main menu of adadmin select: **Generate Application Files Menu > Generate Product Jar Files**
3. Enter No at the **Do you wish to force regeneration of all jar files?** prompt.

Note: To avoid errors when loading Messaging Metadata, Oracle recommends that you force regeneration of all the jar files using adadmin.

3.4.4.3 Make HTB Application Menus Available to Oracle Applications

Autoconfig context value settings need to be modified to main HTB Application Menus available in Oracle Applications SSWA menu structure. The recommended method to update the Applications Context file is using Oracle Applications Manager (OAM). To log in to OAM:

1. Log in to Oracle Applications using the SYSADMIN user and System Administration Responsibility.
2. On the menu items under Oracle Applications Manager select **Dashboard**.
3. Navigate to Site Map > Administration, and select **AutoConfig**.
4. Select **Edit** link to the right side of the Applications Context file you want to modify:
5. Navigate to System > oacore_server > For OA_VAR s_oacore_jvm_start_options, scroll to the end of the already set values and add the following to the end. Append to the end of the s_oacore_jvm_start_options values the following additional options.
 1. Use full path names instead of \$JAVA_TOP and \$FND_SECURE.
 2. Replace <context name> with the actual path name in your environment and dbcfile with the correct value for your FND_SECURE dbc filename.

```
-Djbo.323.compatible=true -DAdaptorCatalog=$JAVA_
TOP/oracle/apps/ctb/tools/bridge/catalog.xml -DClientMode=local
-DDBCFile=$FND_SECURE/<oracle_sid>.dbc -DJTFDBCFILE=$FND_SECURE/<oracle_
sid>.dbc
```

Note: After adding these parameters to the Applications Context file, you must rerun Autoconfig for the changes to take effect.

6. \$ADMIN_SCRIPTS_HOME/adstpall.sh apps/apps (Using your apps password)
7. \$ADMIN_SCRIPTS_HOME/adautocfg.sh
8. Check the changes in the oacore section of \$ORA_CONFIG_HOME/10.1.3/opmn/conf/opmn.xml before restarting Oracle Applications Services. The section should look similar to (For example, \$IAS_ORACLE_HOME/opmn.xml configuration file):

```
<process-type id="oacore" module-id="OC4J" status="enabled"
working-dir="$ORACLE_HOME/j2ee/home"> <module-data> <category
id="start-parameters"> <data id="java-options" value="-server -verbose:gc
-Xmx512M -Xms128M -XX:MaxPermSize=160M -XX:NewRatio=2 -XX:+PrintGCTimeStamps
-XX:+UseTLAB -XX:+UseParallelGC -XX:ParallelGCThreads=2
-Dcom.sun.management.jmxremote -Djava.security.policy=$ORACLE_
HOME/j2ee/oacore/config/java2.policy -Djava.awt.headless=true
-Dhttp.webdir.enable=false -Doracle.security.jazn.config=$INST_
TOP/apps/ih6upg1_rws60009rems/ora/10.1.3/j2ee/oacore/config/jazn.xml
-Djbo.323.compatible=true -DAdaptorCatalog=$JAVA_
TOP/oracle/apps/ctb/tools/bridge/catalog.xml -DClientMode=local -DBCFile=$FND_
SECURE/ih6upg1.dbc -DJTFDBCFILE=$FND_SECURE/ih6upg1.dbc"/>
```

3.4.4.4 Start Oracle Applications

Once you have applied all the patches and completed initial configuration, start Oracle Applications using the following command. Note that all administration scripts for Oracle Applications E-Business Suite Release 12 can be found in a directory referenced by the environment variable \$ADMIN_SCRIPTS_HOME.

```
$ADMIN_SCRIPTS_HOME/adstrtal.sh apps/apps (Using your apps password)
```

Deploying HTB

There are two options for deploying HTB ear file in an OC4J Container. The first option is to install Oracle 10g Application Server (10.1.3.5.0) Mid Tier and then deploy HTB in a container using the user interface. The second option is to download Stand-alone OC4J containers and deploy HTB in a stand-alone OC4J instance.

HTB ear file has both EJB and Web modules. The Web module contains the XDS.b and the tCDA web service deployment descriptors. If you do not need to use these web services, the ear can be deployed without the Web module. See instructions in section [Deploying HTB Application EAR File](#) on page 10 to deploy HTB ear file without the Web module.

This section contains the following topics:

- [Deploying HTB on 10gAS Mid Tier](#)
- [Installing Stand-alone OC4J Mid Tier](#)

4.1 Deploying HTB on 10gAS Mid Tier

To deploy HTB on the 10gAS Mid Tier, you must download and install Oracle Application Server 10g Release 2 J2EE and WebCache components only. You do not need to install the entire Application Server set of products and you also do not need to install the database. Refer to My Oracle Support Article ID: 431578.1 to find certification details for Oracle Application Server 10g on specific platforms.

This section contains the following topics:

- [10gAS J2EE and WebCache Components](#)
- [Installing Initial Mid Tier](#)
- [Creating a New OC4J Instance](#)
- [Configuring the Server Settings for HTB Container](#)
- [Configuring the Data Sources](#)
- [Configuring JMS Queues](#)
- [Creating an Environment Variable OC4J_HOME](#)
- [Configuring the Shared Libraries](#)
- [Customizing HTB Application EAR File to remove Web module \(optional\)](#)
- [Deploying HTB Application EAR File](#)

4.1.1 10gAS J2EE and WebCache Components

The 10.1.3.5.0 version of J2EE and WebCache Mid Tier can be obtained from edelivery.oracle.com.

1. Select **English > Continue**
2. Select: Product Pack: **Health Sciences Platform**: For example, Linux x86
3. Click **Go**
4. Select **Oracle Healthcare 6.1 Media Pack for Linux x86**
5. Click **Continue**
6. Click **Download** for: **Oracle SOA Suite 10g (10.1.3.1.0) for Linux x86 (32-bit) (CD)** and **Oracle Application Server 10g (10.1.3.5.0) Patch Set for Linux x86 (32-bit) (CD)**.
7. Optionally, download the Oracle Application Server Documentation product: **Oracle Applications Release 12.1.1 Documentation Library**. Installing the 10gAS J2EE and WebCache components for use with HTB version 6.0 is a two step process. You first must install the base release, and then upgrade the base release to the 10.1.3.5.0 patch set level. Details of the installation and upgrade of these products can be found in the downloaded documentation library information packs.

To install the J2EE and WebCache components without SOA components, you must use the Oracle Universal Installer Advanced option. Follow the instructions in the section 5.2.5 Installing Oracle HTTP Server in Oracle Application Server Installation Guide 10g Release 3 (10.1.3.2.0) for Linux x86 at http://download.oracle.com/docs/cd/B32110_01/install.1013/b32198.pdf to install the J2EE and Web Cache components only. This is also referred to as the mid tier of the 10gAS installation. You must be a root user to install 10gAS. Though you can perform the installation as an Application user, for example-applmgr or ashtb, at some point during the installation you will need to run a script as the root user.

4.1.2 Installing Initial Mid Tier

After you have completed the installation, open the application server home page. The application server home page provides general information about the status of your server, including the name, location, and application server availability. The home page also provides high-level information about CPU and Memory usage. When reviewing the home page, review the charts for CPU Usage and Memory Usage to see their excessive usage by the application server.

Once you have completed the base installation of 10.1.3 mid tier, you should upgrade it to 10.1.3.5.0 by applying the new version, available for download from My Oracle Support Article ID: 437811.1.

4.1.3 Creating a New OC4J Instance

You need to create a separate OC4J instance for the deployment of HTB. You also need to associate the new instance with an appropriate group. For example, `htbtest_group` in this scenario. A separate instance lets you customize various settings for HTB application. Perform the following steps to create a new OC4J instance:

1. Click **Create** in the Groups section.
2. Enter a *Group Name*. For example, `htbtest_group`.
3. Click **Create**.

Figure 4–1 Enter Group Name

ORACLE Enterprise Manager 10g
Application Server Control

Cluster Topology >
Create Group

Enter name of the group you want to create.

* Group Name

Select one or more existing OC4J instances to move into the new group. Alternatively, you can create an empty group and populate it later.

Select OC4J Instance	Status Application Server	Group Name
<input type="checkbox"/> htb_instance	ih6perfbinst.rws60026rems.us.oracle.com	htb_group

TIP Before you can add an OC4J instance to the group, the OC4J instance must be stopped. However, at least one other OC4J instance must be running on the application server that hosts the OC4J instance. If the check box for a stopped OC4J instance is disabled, then no other OC4J instances in that application server are running.
 TIP You can view the OC4J instances in each application server, and you can start and stop OC4J instances, from the Cluster Topology page.

Cancel Create

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About Oracle Enterprise Manager 10g Application Server Control

4. Select the Application Server. For example, ih6perfbinst.rws60026rems.us.oracle.com.

Figure 4–2 Select the Application Server

ORACLE Enterprise Manager 10g
Application Server Control

Confirmation
New group "htbtest_group" has been created.

Cluster Topology

Page Refreshed May 21, 2008 11:53:39 PM PDT • View Data Manual Refresh

Overview
Hosts 1 Application Servers 1
OC4J Instances 2 HTTP Server Instances 1

Members
View By Application Servers
(Start) (Stop) (Restart)

Select Name	Status Type	Category	Host	CPU (%)	Memory (MB)
<input type="checkbox"/> All Application Servers					
<input type="checkbox"/> ih6perfbinst.rws60026rems.us.oracle.com	Application Server		rws60026rems		
<input type="checkbox"/> home (JVMs: 1)	OC4J			0.30	229.55
<input type="checkbox"/> htb_instance (JVMs: 1)	OC4J			0.04	327.46
<input type="checkbox"/> HTTP_Server	Oracle HTTP Server			0.17	178.96

Indicates the active ASControl instance.
 TIP If a parent topology member is selected all contained members are implicitly selected.

Groups
A group is a collection of OC4J instances. Certain common management tasks can be performed simultaneously on all OC4J instances in a group. For more information, see About Groups
(Start) (Stop) (Delete) | (Create)

Select Name	OC4J Instance	Status Application Server
<input checked="" type="radio"/> default_group	home	ih6perfbinst.rws60026rems.us.oracle.com
<input type="radio"/> htb_group	htb_instance	ih6perfbinst.rws60026rems.us.oracle.com
<input type="radio"/> htbtest_group		

Administration

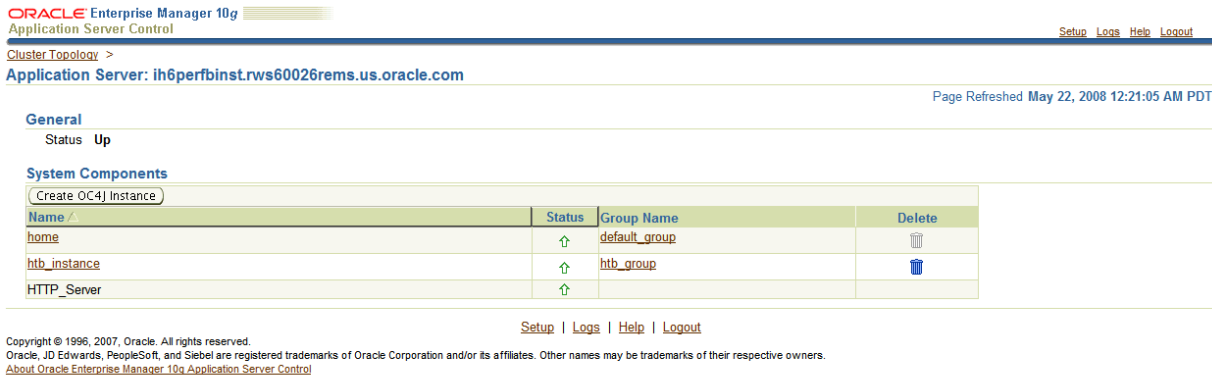
- Cluster MBean Browser
- Routing ID Configuration
- Java SSO Configuration
- Topology Network Configuration
- Runtime Ports

Setup | Logs | Help | Logout

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About Oracle Enterprise Manager 10g Application Server Control

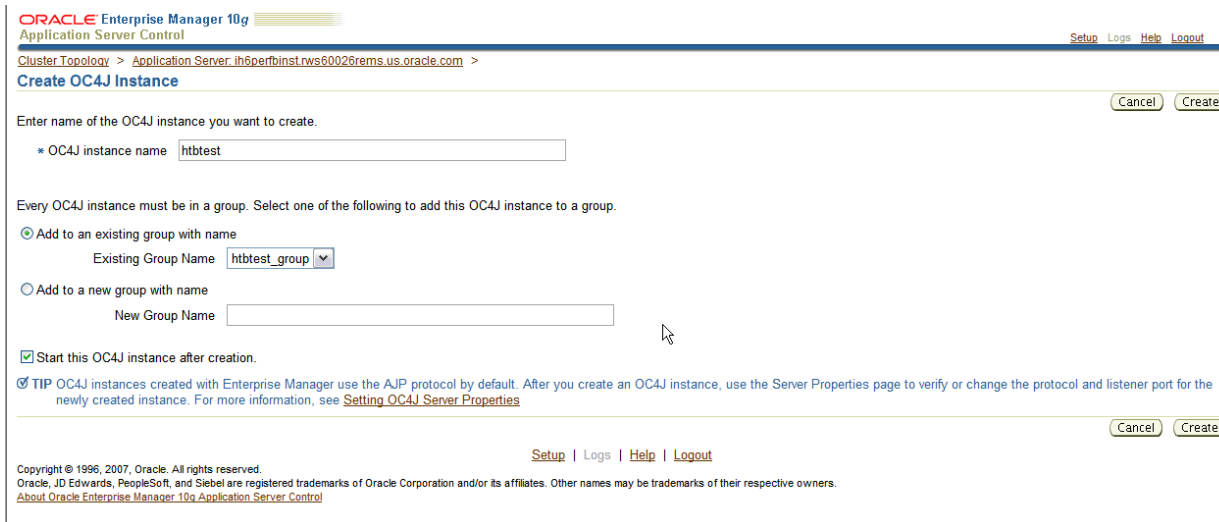
5. Click Create OC4J Instance.

Figure 4–3 Create an Instance of OC4J Container



6. Enter a name for your new container and click **Create** to create the OC4J instance. Note that the figure 4.4 displays that Start this OC4J Instance is selected after creation for your convenience. The following screen is displayed once your instance is successfully created. In this scenario, the instance name is htbtest.

Figure 4–4 Enter the Instance Name



The next step is to configure the services and data sources prior to deploying HTB.

7. Select the newly created OC4J instance. For example, htbtest in this scenario.

Figure 4–5 New HTB OC4J Container

The screenshot shows the Oracle Enterprise Manager 10g Application Server Control interface. At the top, there is a navigation bar with 'Setup', 'Logs', 'Help', and 'Logout'. Below this, a 'Confirmation' message states: 'New OC4J instance "htbtest" has been created and added to group "htbtest_group"'. The application server is identified as 'ih6perfbinst.rws60026rems.us.oracle.com'. The page was refreshed on May 22, 2008 at 12:25:27 AM PDT. The 'General' section shows the status as 'Up'. Under 'System Components', there is a table listing components:

Name /	Status	Group Name	Delete
home	↑	default_group	
htb_instance	↑	htb_group	
htbtest	↑	htbtest_group	
HTTP_Server	↑		

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4.1.4 Configuring the Server Settings for HTB Container

When you select the newly created OC4J instance, OC4J page for the instance is displayed. You can configure your instance by navigating to the Administration tab:

1. Navigate to the **Administration** tab. You need to configure Java options in the server settings of the new HTB container.
2. Click **Server Properties**.
3. Enter the values for Java Start parameters with the correct absolute path to the DBC file (-DDBCFile and -DJTFDBCFILE options).
4. This step is optional and not applicable if HTB ear is to be deployed without Web module. Only when HTB needs to connect to an external IHE XDS.b Document Registry node through an http proxy server, you need to configure the following start parameters for your proxy server. Click **Add Another Row** and enter the following details:
 - a. -Dhttp.proxyHost=<Your Proxy Server>, For example, -Dhttp.proxyHost=www.proxyhostexample.com
 - b. -Dhttp.proxyPort=<Your Proxy Port>, For example. -Dhttp.proxyPort=8080
5. Click **Apply** to apply the changes.

4.1.5 Configuring the Data Sources

The container is created with a default application configuration that points to a demo data server with the user *Scott* and the password *Tiger*.

1. Navigate to the **OC4J: HTB Administration** window.
2. Click **JDBC Resources**.
3. You need to create a Connection Pool called **OracleAppsCP**. Click **Create** in Connection Pools section.
4. You must set Username and Password for the apps user for the connection pool OracleAppsCP.
5. Select the **Attribute** tab.
6. Set Maximum Number of Statements Cached as **200**.

7. Enter the *JDBC URL* pointing to your database and the relevant port.
8. Click **Test Connection** for the JDBC URL to ensure that it is in order.
9. Enter a SQL statement.
10. Click **Test**.
11. Click **Create**. Create a Data Source **OracleAppsDS**.

Figure 4–6 Create Data Source

ORACLE Enterprise Manager 10g
Application Server Control

Cluster Topology > Application Server_in6perbinst.rws60026rems.us.oracle.com > OC4J: htbtest >

Confirmation
Connection to "OracleAppsCP" established successfully.

JDBC Resources Page Refreshed May 27, 2008 2:30:14 PM PDT

Application: default

Data Sources

Name ^/	Application	JNDI Location	Connection Pool	Managed by OC4J	Test Connection	Delete
"OracleAppsDS"	default	jdbc/OracleAppsDS	"OracleAppsCP"	✓		
"OracleDS"	default	jdbc/OracleDS	"Example Connection Pool"	✓		

Connection Pools

Name ^/	Application	Connection Factory Class	Monitor Performance	Test Connection	Refresh Connection Pool	Delete
"Example Connection Pool"	default	oracle.jdbc.pool.OracleDataSource				
"OracleAppsCP"	default	oracle.jdbc.pool.OracleDataSource				

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About Oracle Enterprise Manager 10g Application Server Control

12. Enter jdbc/OracleAppsDS in the JNDI Location field.
13. Enter information in Name and other fields as appropriate.
14. Let the default value for Transaction Level remain **Global & Local Transactions**.
15. Select the previously created OracleAppsCP as the Connection Pool.
16. The subsequent window confirms that you have successfully created the required Data Source.

4.1.6 Configuring JMS Queues

If you intend to deploy the HTB ear along with the Web module, you must create the following JMS queues in OC4J. Otherwise this step can be skipped. These queues are used by HTB's Asynchronous XDS.b Web services:

Table 4–1 Creating JMS Queue

JMS Queue Name	JNDI Location	Persistence File
AsyncXDS_PnRbRequestQueue	jms/ AsyncXDS_PnRbRequestQueue	asyncXDS_PnRbRequests
AsyncXDS_PnRbRequestContextQueue	jms/ AsyncXDS_PnRbRequestContextQueue	asyncXDS_PnRbRequestContexts
AsyncXDS_PnRbResponseQueue	jms/ AsyncXDS_PnRbResponseQueue	asyncXDS_PnRbResponses
AsyncXDS_RetrieveDocbRequestQueue	jms/ AsyncXDS_RetrieveDocbRequestQueue	asyncXDS_RetrieveDocbRequests

1. Navigate to the **Administration** tab.
2. Click Go to Task in the JMS Destinations row.

Figure 4–7 JMS Destinations

ORACLE Enterprise Manager 10g
Application Server Control

OC4J: home

Page Refreshed Feb 24, 2010 6:22:52 AM PST

Home Applications Web Services Performance Administration

Task Name	Go to Task	Description
Administration Tasks		
Properties		
EJB Compiler Settings		Configure the EJB Compiler.
J2EE Websites		Manage the J2EE websites in this OC4J instance.
JSP Properties		Set JSP container properties.
Logger Configuration		Set log levels for all Loggers.
Thread Pool Configuration		Configure the thread pools of this OC4J instance.
Shared Libraries		Manage the shared libraries of this OC4J instance.
SSO Configuration		Configure the SSO of this OC4J instance.
Services		
JDBC Resources		Create/delete/view data sources and connection pools.
Enterprise Messaging Service		
JMS Destinations		Create/delete/edit JMS destinations.
JMS Connection Factories		Configure JMS connection factories.
In-Memory and File Based Persistence		Configure settings for in-memory and file based persistence.

3. Click **Create New** to create the JMS queues.

Figure 4–8 Create New

ORACLE Enterprise Manager 10g
Application Server Control

OC4J: home

Page Refreshed Feb 24, 2010 6:22:52 AM

Home Applications Web Services Performance Administration

Task Name	Go to Task	Description
Administration Tasks		
Properties		
EJB Compiler Settings		Configure the EJB Compiler.
J2EE Websites		Manage the J2EE websites in this OC4J instance.
JSP Properties		Set JSP container properties.
Logger Configuration		Set log levels for all Loggers.
Thread Pool Configuration		Configure the thread pools of this OC4J instance.
Shared Libraries		Manage the shared libraries of this OC4J instance.
SSO Configuration		Configure the SSO of this OC4J instance.
Services		
JDBC Resources		Create/delete/view data sources and connection pools.
Enterprise Messaging Service		
JMS Destinations		Create/delete/edit JMS destinations.
JMS Connection Factories		Configure JMS connection factories.
In-Memory and File Based Persistence		Configure settings for in-memory and file based persistence.

4. Configure the queue AsyncXDS_PnRbRequestQueue as illustrated in the figure 4.9 and click OK. Note that you must select the file based persistence option.

Figure 4–9 Configure a Queue

ORACLE Enterprise Manager 10g
Application Server Control

OC4J_home > JMS Destinations >
Add Destination

Destinations (queues or topics) can be created with the messaging provider. If you are using the JMS Connector to interface with the messaging provider, you might also need to create a corresponding destination for the JMS Connector.

Destination Type: Queue

Destination Name: AsyncXDS_PnRbRequestQueue

Description:

Persistence

In Memory Persistence Only
JNDI Location:

File Based Persistence
JNDI Location: jms/AsyncXDS_PnRbRequestQueue
Persistence File: asynXDS_PnRbRequests

Database Based Persistence

Select	Resource Provider Name	Datasource JNDI Location
<input type="checkbox"/>	No database persistence JMS providers found.	

Persistence
A destination can have one of three choices for persistence.

- In Memory Persistence:** The messages sent to this destination are only saved in memory. Messages cannot be recovered in the event of a server crash.
- File Based Persistence:** OC4J will persist messages that can be persisted to the persistence file specified. The persistence file needs to be in an existing directory. If the file does not exist, one will be created and initialized by OC4J. Relative paths specified for the persistence file are resolved with respect to the persistence directory specified for the OC4J instance.
- Database Based Persistence:** This option is available only if a JMS connector configured to talk to a database messaging provider has been deployed. JNDI location for the destination will be defaulted to Queues/<destinationName> or Topics/<destinationName>. Only unique JMS connectors (resource providers) are listed in the table.

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- Repeat step 2 and 3 to configure the remaining three JMS queues.

4.1.7 Creating an Environment Variable OC4J_HOME

The newly installed Oracle Application Server 10g (10.1.3.5.0) has an OC4J 10.1.3 server. HTB is deployed in this OC4J 10.1.3 server. Get the absolute path of OC4J 10.1.3 installation directory. Define a new environment variable OC4J_HOME pointing to the OC4J 10.1.5.3 installation directory. To add new environment variable OC4J_HOME, modify \$APPL_TOP/admin/adovars.env to include following customizations, at the end of the file:

- #Begin Customizations
- OC4J_HOME=<Absolute path of installation of OC4J 10.1.3>
- export OC4J_HOME
- #End customization

Check if directory \$OC4J_HOME/j2ee/home exists to verify customizations.

4.1.8 Configuring the Shared Libraries

You need to create two shared libraries, with the requisite jar/zip files, required for the HTB instance. Following are the two shared libraries:

- oracle.jdbc version 10.2.0.3. This library also needs to include the following files:
 - \$AF_JLIB/jdbc14.zip
 - \$AF_JLIB/nls_charset12.zip
 - \$OC4J_HOME/opmn/lib/ons.jar
 - \$OC4J_HOME/rdbms/jlib/aqapi.jar

The following shared libraries also need to be imported by this new shared library:

- oracle.dms version 3.0
- htb.libraries. This library needs to include the following directories and files:

1. \$APPL_TOP/ctb/12.0.0/
2. \$APPL_TOP/fnd/12.0.0/java/3rdparty/stdalone/bc4jmtelj.zip
3. \$JAVA_TOP
4. \$SSA_TOP/bin/idsclie.jar – Optionally required if ISS is in use with HTB version 6.1.1
5. \$SSA_TOP/bin/idssecl.jar – Optionally required if ISS is in use with HTB version 6.1.1

The following shared libraries also need to be imported by this new htb.libraries:

6. oracle.cache 10.1.3
7. oracle.gdk 10.1.0_2
8. oracle.jdbc 10.2.0.3
9. oracle.xml 10.1.0_2
10. oracle.ws.jaxrpc 1.1 - required only if HTB ear is to be deployed with its web module
11. oracle.ws.client (10.1.3) - required only if HTB ear is to be deployed with its web module

You must know how to edit an XML file, as this step requires editing server.xml file. Get absolute physical path for following variables and keep a note of these:

- \$OC4J_HOME
- \$AF_JLIB
- \$APPL_TOP
- \$FND_TOP
- \$JAVA_TOP

To configure the shared libraries:

Open \$OC4J_HOME/j2ee/home/config/server.xml (preferably in an XML editor) and modify the file to have following entries:

Note that while making these entries, you must replace environment variables with the corresponding absolute physical paths. Add only those entries that are not available. If you are upgrading from an existing installation, some of these entries may already be there:

```
<shared-library name="htb.libraries" version="1.0">
  <code-source path="$APPL_TOP/ctb/12.0.0"/>
  <code-source path="$FND_TOP/java/3rdparty/stdalone/bc4jmtelj.zip"/>
  <code-source path="$SSA_TOP/bin/idsclie.jar"/>
  <code-source path="$SSA_TOP/bin/idssecl.jar"/>
  <code-source path="$JAVA_TOP"/>
  <import-shared-library name="oracle.jdbc" min-version="10.2.0.3"/>
  <import-shared-library name="oracle.xml"/>
  <import-shared-library name="oracle.cache"/>
  <import-shared-library name="oracle.gdk"/>
  <import-shared-library name="oracle.ws.jaxrpc"/>
  <import-shared-library name="oracle.ws.client"/>
</shared-library>
```

4.1.9 Customizing HTB Application EAR File to remove Web module (optional)

1. Unpack the htb.ear file.

```
mkdir tempdir
cd tempdir
cp $CTB_TOP/java/ear/htb.ear htb.ear
jar -xvf htb.ear
```
2. Edit the META-INF/application.xml file and remove the following:

```
<module>
  <web>
    <web-uri>htb-web.war</web-uri>
    <context-root>XDS</context-root>
  </web>
</module>
```
3. Edit the META-INF/orion-application.xml file and remove the following:

```
<web-module id="htb-web" path="htb-web.war"/>
```
4. Repackage the htb.ear file.

```
jar -cvf htb.ear htb-ejb.jar usermanager.zip META-INF/
```
5. Use the repackaged HTB ear file to deploy the application without the Web module

Note: If you need to deploy both ear files (i.e. with and without Web module), then the ear files must be deployed under different deployment names for the respective applications such as htb and htbnoweb.

4.1.10 Deploying HTB Application EAR File

Note: In Oracle Application Server 10g, it is necessary to remove the adf.oracle.domain imported library. Add the following line in the orion-application.xml descriptor manually or by using the Oracle AS User Interface at deployment time. `<remove-inherited name="adf.oracle.domain"/>`

1. Navigate to the **Applications** tab.
2. Click **Deploy**.
3. Enter the *absolute path* and *name* of the ear file.
4. Select the htb.ear file from a local file system. If you are running a browser from the server, you can browse to the location of the ear file under the \$CTB_TOP/java/ear/ directory in the E-Business Suite applications installation. If you are running a MS Windows machine using a browser, you must first download HTB.ear file so that you can choose it from the Browse menu. Enter a deployment name for the application. For example, htb in this scenario.

5. Click Next.

Figure 4–10 Deploy: Select Archive

ORACLE Enterprise Manager 10g
Application Server Control

Setup Logs Help Logout

Select Archive Application Attributes Deployment Settings

Deploy: Select Archive

Cancel Step 1 of 3 Next

Archive

The following types of archives can be deployed: J2EE application (EAR files), Web Modules (WAR files), EJB Modules (EJB JAR files) and Resource Adapter Modules (RAR files).

Archive is present on local host. Upload the archive to the server where Application Server Control is running.

Archive Location

Archive is already present on the server where Application Server Control is running.

Location on Server

The location on server must be the absolute path or the relative path from j2ee/home

Deployment Plan

The deployment plan is an XML file that contains the deployment settings for an application. If you do not have a deployment plan, one will be created automatically during the deployment process. Later in the deployment process, you can optionally edit the deployment plan and save it for a future deployment of this application.

Automatically create a new deployment plan.

The deployment plan settings will be based on OC4J defaults and information contained in the archive

Deployment plan is present on local host. Upload the deployment plan to the server where Application Server Control is running.

Plan Location

Deployment plan is already present on server where Application Server Control is running.

Location on Server

The location on server must be the absolute path or the relative path from j2ee/home

Setup | Logs | Help | Logout

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6. Enter htb as the Application Name, review the other application attributes and click Next.

Figure 4–11 Application Attributes

ORACLE Enterprise Manager 10g
Application Server Control

Help Logout

Select Archive Application Attributes Deployment Settings

Deploy: Application Attributes

Cancel Back Step 2 of 3 Next

Archive Type J2EE Application (EAR file)
Archive Location /slot/ems1018/appmgr/apps/tech_st/oc4j/j2ee/home/htb.ear
Deployment Plan Creating a new plan

* Application Name

Parent Application

Bind Web Module to Site

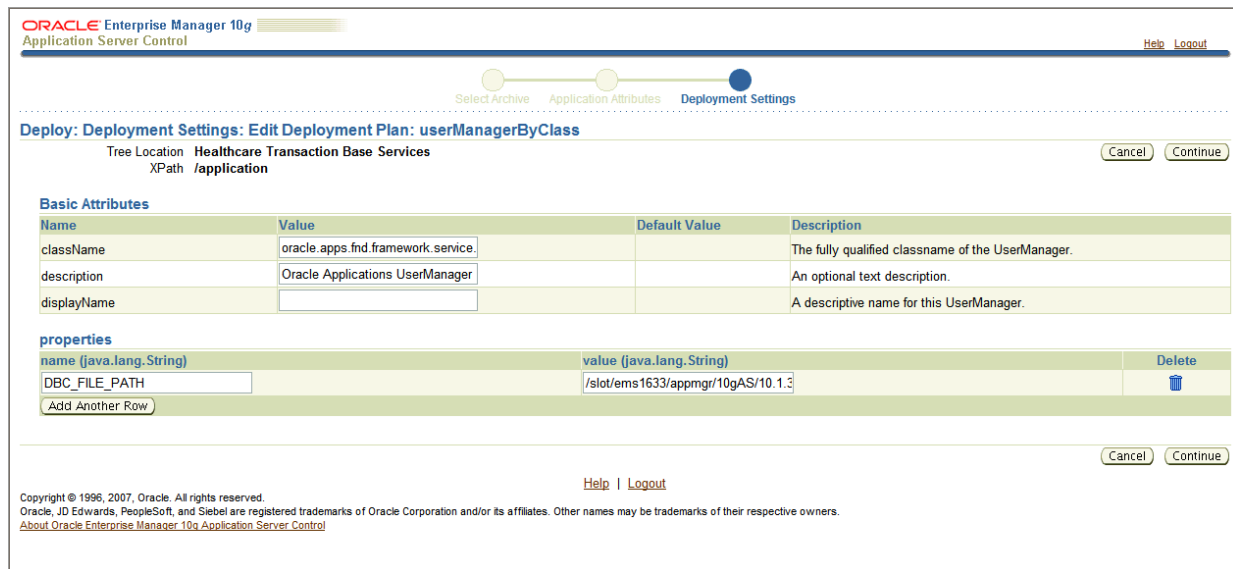
Web Module	Context Root
htb-web.war	XDS

Help | Logout

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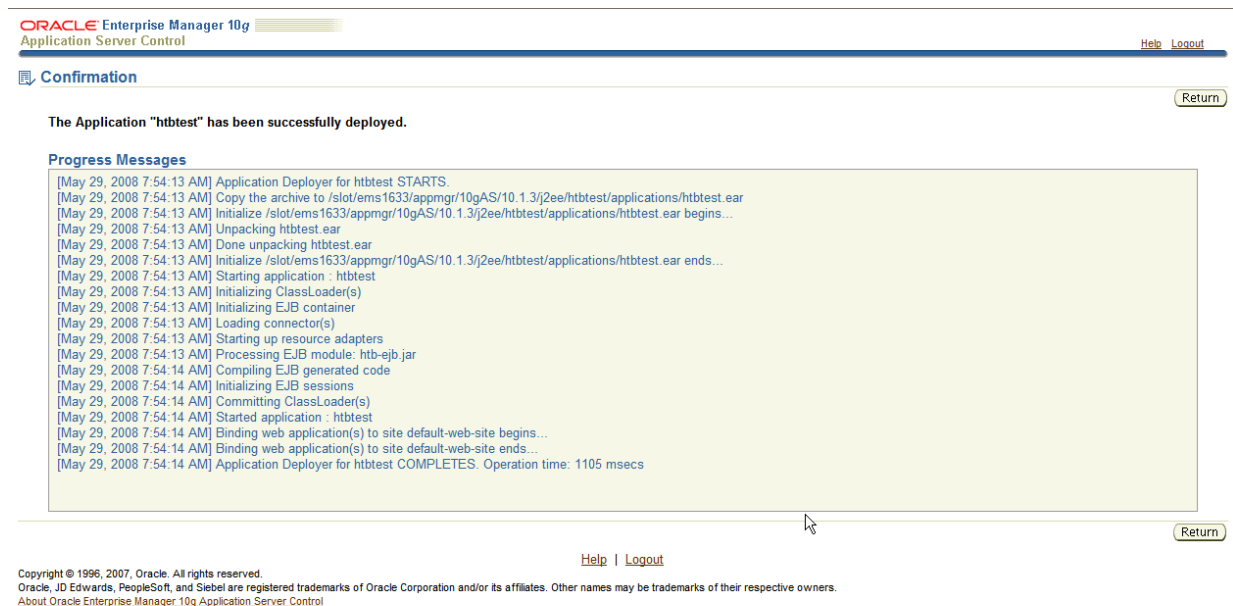
7. Edit the deployment plan to include the database connectivity for the application as following:
8. Click **Edit userManagerByClass**.
9. Enter the *DBC filename* including the absolute path under the DBC_FILE_PATH.
10. Click **Continue**.

Figure 4–12 Deploy: Deployment Settings: Edit Deployment Plan: userManagerByClass



11. Click **OK**.
12. You have successfully deployed the application, which is ready to receive ormi requests.
13. Click **Return**. Oracle recommends that you restart the OC4J container, in this scenario, htbtest.

Figure 4–13 Confirmation of Deployment



4.2 Installing Stand-alone OC4J Mid Tier

The second option is to deploy HTB ear file, download a stand-alone version of the OC4J Containers, and deploy it on the stand-alone instance. This has fewer overheads

but also requires you to script the startup and shutdown of the OC4J instance. This is suitable for development installations. Oracle recommends that you perform the installation of 10gAS J2EE and WebCache.

If you do not need the Web module to be deployed from HTB ear, you can follow the steps in [Deploying HTB Application EAR File](#) [Deploying HTB Application EAR File](#) to remove the Web module before deploying the ear file.

This section contains the following topics:

- [Installing OC4J Containers](#)
- [Updating OC4J Containers with HTB Specific Libraries](#)
- [Configuring HTB Web Module](#)
- [Configuring JMS Queues in Stand-alone OC4J Server](#)
- [Deploying HTB EAR File](#)
- [Starting and Stopping the Stand-alone OC4J Container](#)
- [Testing OC4J Installation](#)
- [Pointing OC4J Container to Database Server](#)
- [Post-installation Steps for version 5.x Outbound Messages](#)

4.2.1 Installing OC4J Containers

The Oracle Application Server 10g Release 2 (10.1.3.5.0) download area on OTN at <http://otn.oracle.com> includes a separate download for Oracle Containers for J2EE stand-alone distributions. If you do not already have the `oc4j_extended.zip` file, you may download it from this Web site. Note that it is only Oracle Containers for J2EE 10g(OC4J) version 10.1.3.5.0 download that you need for HTB version 6.1.1 product platform. Perform the following steps to download and set up stand-alone OC4J from OTN at <http://otn.oracle.com>:

1. Select **Downloads > Application Server**
2. Ensure you are downloading the correct version - **Oracle Containers for J2EE (OC4J) 10g Release 3 (10.1.5.3)**
3. Select **OC4J stand-alone**
4. On the Applications Server box, logged in as the `appl` user, create a new folder for your OC4J instance. For example, create `htb_oc4j` under `/u01/oracle`. Unzip the contents of the `oc4j_extended.zip` file into this new directory.
5. Create an environment variable called `OC4J_HOME` that points to this new `/u01/oracle/htb_oc4j` directory.

Note that the 1.5 version of Java was installed with 12.1.1 installation. Oracle Applications uses both a Java Development Kit environment as well as a Java Runtime Environment. You can verify the Java Runtime Environment by checking the environment variable `$ADJVAPRG` and issuing the command `$ADJVAPRG -version` or by issuing the command `java -version`. To check the location of the Oracle Applications installed in `JAVA_HOME`, use the command `which java`, or check the environment variable `$ADJVAPRG`.

Perform the following steps to install OC4J from the `$OC4J_HOME/j2ee/home` directory. You are prompted for an admin password. Make note of the password you give, as you will need it when you stop the instance.

1. Set up your environment for OC4J Installation

2. Set ORACLE_HOME variable to where oc4j standalone was unzipped:export
ORACLE_HOME=/u01/oracle/htb_oc4j
3. Set up your JAVA_HOME variable to the Java Runtime Environment to be used.
This can be set to the same as the Oracle Applications JAVA_HOME):export
JAVA_HOME=\${IAS_ORACLE_HOME}/appsutil/jdk/jre
4. Go to \$OC4J_HOME/j2ee/home/config and issue the following command to let XML files be written to during the deployment of HTB:chmod u+w *.xml
5. Update XML files to make sure the port numbers are what you expect. Note that the default ports are rmi. 23791 and 23943 (SSL), jms 9127, and HTTP 8888. Ensure these port are not in use by another product using your standard Operating System Tools before proceeding. If you want to connect to a different port, update these files with the desired ports for all API calls.
6. Continue the Standalone OC4J Installation by issuing the following command:cd
\$OC4J_HOME/j2ee/home \$OC4J_HOME/bin/oc4j -start

Note: This installs and starts the Standalone OC4J running in your current session. Once you see the message Oracle Containers for J2EE 10g (10.1.3.5.0) initialized, your installation has completed successfully. At this stage you can issue an interrupt (Control C in Unix shell) to shutdown OC4J and continue.

4.2.2 Updating OC4J Containers with HTB Specific Libraries

Back up and update the \$OC4J_HOME/j2ee/home/config/server.xml file by adding the following lines with the appropriate path names and instance names from your applications servers. Note that all variables such as \$AF_LIB must be replaced with actual paths.

The shared library configuration below for oracle.ws.client and oracle.ws.jaxrpc is required only if HTB ear is to be deployed with the Web module.

Note: \$SSA_TOP/bin/idsclie.jar and \$SSA_TOP/bin/idssecl.jar are OPTIONALLY required in htb.libraries if ISS is in use with HTB version 6.1.1 Exclude these libraries from the configuration if ISS is not in use with HTB version 6.1.1 at your site.

```
<shared-library name="htb.libraries" version="1.0">
  <code-source path="$APPL_TOP/ctb/12.0.0"/>
  <code-source path="$FND_TOP/java/3rdparty/stdalone/bc4jmtelj.zip"/>
  <code-source path="$SSA_TOP/bin/idsclie.jar"/>
  <code-source path="$SSA_TOP/bin/idssecl.jar"/>
  <code-source path="$JAVA_TOP"/>
  <import-shared-library name="oracle.jdbc" min-version="10.2.0.3"/>
  <import-shared-library name="oracle.xml"/>
  <import-shared-library name="oracle.cache"/>
  <import-shared-library name="oracle.gdk"/>
  <import-shared-library name="oracle.ws.jaxrpc"/>
  <import-shared-library name="oracle.ws.client"/>
</shared-library>
```

Start OC4J to check the changes to server.xml are valid. If OC4J fails to start, review the error message for possible syntax errors in the server.xml file.

```
cd $OC4J_HOME/j2ee/home
$OC4J_HOME/bin/oc4j -start
```

Note: This installs and starts the Standalone OC4J running in your current session. Once you see the message Oracle Containers for J2EE 10g (10.1.3.5.0) initialized, your installation has completed successfully. At this stage you can issue an interrupt (Control C in Unix shell) to shutdown OC4J and continue.

4.2.3 Configuring HTB Web Module

This step is applicable only for HTB ear deployment with the Web module.

Modify `j2ee/<htboc4j_name>/config/default-web-site.xml` and add the following line to configure HTB's Web module:

```
<web-app application="htb" name="htb-web" load-on-startup="true" root="/XDS"/>
```

4.2.4 Configuring JMS Queues in Stand-alone OC4J Server

If you intend to deploy the HTB ear along with the web module, you must create the following JMS queues in OC4J. Otherwise this step can be skipped. These queues are used by HTB's Asynchronous XDS.b Web services.

Table 4–2 JMS Queues in OC4J

JMS Queue Name	JNDI Location	Persistence File
AsyncXDS_PnRbRequestQueue	jms/AsyncXDS_PnRbRequestQueue	asyncXDS_PnRbRequests
AsyncXDS_PnRbRequestContextQueue	jms/AsyncXDS_PnRbRequestContextQueue	asyncXDS_PnRbRequestContexts
AsyncXDS_PnRbResponseQueue	jms/AsyncXDS_PnRbResponseQueue	asyncXDS_PnRbResponses
AsyncXDS_RetrieveDocbRequestQueue	jms/AsyncXDS_RetrieveDocbRequestQueue	asyncXDS_RetrieveDocbRequests

Modify the file: `$OC4J_HOME/j2ee/home/config/jms.xml` and add the following XML snippet inside the XML element to configure the JMS queues:

```
<queue name = "AsyncXDS_PnRbRequestQueue" location = "jms/AsyncXDS_
PnRbRequestQueue" persistence-file = "asyncXDS_PnRbRequests"/>
<queue name = "AsyncXDS_PnRbResponseQueue" location = "jms/AsyncXDS_
PnRbResponseQueue" persistence-file = "asyncXDS_PnRbResponses"/>
<queue name = "AsyncXDS_PnRbRequestContextQueue" location = "jms/AsyncXDS_
PnRbRequestContextQueue" persistence-file = "asyncXDS_PnRbRequestContexts"/>
<queue name = "AsyncXDS_RetrieveDocbRequestQueue" location = "jms/AsyncXDS_
RetrieveDocbRequestQueue" persistence-file = "asyncXDS_RetrieveDocbRequests"/>
```

4.2.5 Deploying HTB EAR File

Prior to creating start and stop scripts, you should complete the following configuration:

1. Copy, or optionally symbolically link the Oracle Applications DBC file to the `$OC4J_HOME/j2ee/home` directory:

```
cd $OC4J_HOME/j2ee/homecp $FND_SECURE/$ORACLE_SID.dbc oracle_apps.dbc
```

- ```
orln -s $FND_SECURE/$ORACLE_SID.dbc oracle_apps.dbc (Recommended)
```
- Copy or optionally symbolically link HTB deployable EAR file to the \$OC4J\_HOME/j2ee/home directory:
 

```
cd $OC4J_HOME/j2ee/home cp $CTB_TOP/java/ear/htb.ear htb.ear
```

```
orln -s $CTB_TOP/java/ear/htb.ear htb.ear (Recommended)
```
  - Create the java\_stage directory in \$OC4J\_HOME/j2ee/home:
 

```
cd $OC4J_HOME/j2ee/home mkdir java_stage
```

## 4.2.6 Starting and Stopping the Stand-alone OC4J Container

You need to create two scripts, startoc4j.sh and stopoc4j.sh, that should reside in the \$OC4J\_HOME/j2ee/home directory. You should update startoc4j.sh script to reflect the full path of the copied or symbolically linked DBC file on the current instance. You should also update stopoc4j.sh script to include the admin password that was provided when OC4J was installed on the new applications server. The following is the syntax for the two script files.

---



---

**Note:** Starting/stopping OC4J server using AS Control is NOT supported for HTB application since not all JVM parameters are passed from the configuration files. Also, there is a known issue with starting/stopping OC4J using AS Control which causes Java out of memory errors. Ensure that you create and use the following startoc4j.sh and stopoc4j.sh scripts for starting and stopping the standalone OC4J container.

---



---

Variable options depending on Mid-Tier Topology:

- **DLONG\_RUNNING\_JVM=TRUE** (Set TRUE only if you are using OC4J on a multi-tier installation)
- **DLONG\_RUNNING\_JVM=FALSE** (Set FALSE only if you are using OC4J on a single tier installation)

Other considerations:

For *Initial Heap Size(-ms)*, *Maximum Heap Size(-mx)*, and *-XX:MaxPermSize* settings provide appropriate values for the deployed hardware, in the range 512M to 2048M. The settings in the example are the minimum values required for HTB runtime.

When HTB needs to connect to an external IHE XDS.b Document Registry node through an HTTP proxy server, you need to configure the following optional OC4J parameters:

- Dhttp.proxyHost:** Identifies the host name of the HTTP proxy server. For example, `-Dhttp.proxyHost=www.proxyhostexample.com`
- Dhttp.proxyPort:** Identifies the port number of the HTTP proxy server port. For example, `-Dhttp.proxyPort=8080`

Example script: (startoc4j.sh)

```
#!/bin/sh export ORACLE_HOME=/u01/oracle/htb_oc4j export JAVA_
HOME=/local/java/jdk1.5.0 export OC4J_JVM_ARGS="-DworkflowSupported=Y
-Djbo.323.compatible=true -DDBCFile=/u01/oracle/htb_oc4j/ j2ee/home/oracle_
apps.dbc
-DJTFDBCFILE=/u01/oracle/htb_oc4j/j2ee/home/oracle_apps.dbc
-DClientMode=local -DAFLOG_ENABLED=TRUE -DAPPLRGF=/u01/oracle/htb_
oc4j/j2ee/home/java_stage
```

```
-DAFLOG_FILENAME=/u01/oracle/htb_oc4j/j2ee/home/java_stage/aflog.txt -DAFLOG_
LEVEL=EXCEPTION
-DLONG_RUNNING_JVM=FALSE -DIgnoreUnrecognizedElements=N -Djava.awt.headless=true
-ms512M -mx1024M -XX:MaxPermSize=512M" nohup /u01/oracle/htb_oc4j/bin/oc4j
-start >> startoc4j.log 2>&1&
```

## Arguments

### *workflowSupported*

While generating HTB v5.x based messages, HTB OMP can be optionally integrated with Oracle Workflow. To enable integration of Oracle Workflow with OMP, the OC4J server should be started with this command line parameter set to Y, which is the default option. To disable integration of Oracle Workflow, set the workflowSupported command line parameter to N.

### *IMP\_DATA\_LOADER\_MODE*

Activates an internal data loader mode in IMP. This system property should not be used.

### *ClientMode*

Specify the client mode either as local or remote.

### *IgnoreUnrecognizedElements*

Refer to *HTB Implementation and System Administrator Guide (Implementing Inbound Messaging Services: Messaging Metadata: An Overview)*.

### *LONG\_RUNNING\_JVM*

Setting this to false turns off the Oracle Applications caching framework from running in distributed mode. By default this is set to true.

### *AFLOG\_ENABLED*

Setting this to Yes enables the application framework logging feature. (See My Oracle Support Article ID: 395445.1)

### *AFLOG\_FILENAME*

Setting this to a complete filename causes the log messages to be written to a file rather than the database. (See My Oracle Support Article ID: 395445.1)

### *AFLOG\_LEVEL*

The log level for messages that you would like to write to the database. OA Framework will log all messages with log levels greater than or equal to this profile option, so that the higher the value, the fewer messages that will be logged. (See My Oracle Support Article ID: 395445.1)

### *APPLRGF*

Refers to the name of the directory in which (R)untime dynamically (G)enerated (F)iles are stored.

Example script: (stopoc4j.sh)

```
#!/bin/shexport ORACLE_HOME=/u01/oracle/htb_oc4jexport JAVA_
HOME=/local/java/jdk1.5.0/u01/oracle/htb_oc4j/bin/oc4j -shutdown -port <rmiport>
-password <password>
```

## 4.2.7 Testing OC4J Installation

1. Start OC4J container using the startoc4j.sh script and check the \$OC4J\_HOME/j2ee/home/startoc4j.log file for errors.
2. Test the installation by starting the OC4J instance and accessing the welcome page from a Web browser. The URL will be in the following format:  

```
http://<oc4j_host>:<portnumber>
```

Where <oc4j\_host> is the name of the server on which OC4J is running and <portnumber> is the value specified in the port attribute of the <web-site> element in the file.
3. The OC4J welcome page is displayed. You can access Application Server Control for the installed Standalone OC4J via this home page on the top right corner link Launch Application Server Control using your login Username oc4jadmin and the password you supplied on installation.
4. Deploy HTB application from Application Server Control: Navigate to > **Applications > Deploy**
  - a. Select **Archive is already present on the server where Application Server Control is running.**
  - b. Enter *htb.ear path* (needs full Path if HTB.ear was not copied or symbolically linked in \$OC4J\_HOME/j2ee/home in previous steps)
  - c. Leave the default deployment option **Automatically create a new deployment plan.**
5. Click **Next** > Application Name: **htb**, leave options as default.
6. Leave default deployment settings.
7. Click **Deploy** and check the messages for successful completion.

Optionally: Deploy HTB application from the command line using the following statement from within the \$OC4J\_HOME/j2ee/home directory while logged in as the app user. Note that the admin password in this example is admin. Update this statement to reflect the password that you assigned when you installed OC4J. This command must be entered in a single line. Note the port number was given as 23791 because this is default in rmi.xml.

```
java -Xmx1024M -Xms1024M -jar admin.jar ormi://localhost:23791 oc4jadmin
admin -deploy \ -file $OC4J_HOME/j2ee/home/htb.ear -deploymentName htb
```

---

**Note:** A warning in the startoc4j.log "WARNING J2EE OJR-00221 User Manager not of required type for this application" can be ignored.

---

## 4.2.8 Pointing OC4J Container to Database Server

Set up the Data Sources from the Application Server Control:

1. Navigate to **Administration > Services > JDBC Resources.**
2. Click **Create** in Connection Pool section
  - a. Enter Application: default > New Connection Pool
  - b. Name: OracleApps Connection Pool

- c. JDBC URL: `=jdbc:oracle:thin:@hostname.domainname:port:ORACLE_SID` (Enter correct values for your connection)
- d. Credentials: Username: `apps` Password: `apps` (Enter correct values for your connection)
- e. Select the **Attribute** tab
- f. Set Maximum Number of Statements Cached as 200
- g. Click **Test Connection** to check your values.
3. Click **Create a Data Source**
  - a. Name: `OracleAppsDS`
  - b. Use the Connection Pool **OracleApps Connection Pool**.
  - c. Enter information in Name and other fields as appropriate.
  - d. Leave the default value for Transaction Level as **Global & Local Transactions**.
4. Click **Finish** to save. The subsequent window confirms that you have successfully created the required Data Source.
5. Navigate to **Services > Transaction Manager (JTA)**
  - a. Select **Administration** tab
  - b. Set Transaction Timeout: **600**
  - c. Click **Apply** to save.

Optionally:

Set up the Data Sources manually:

1. Edit `$OC4J_HOME/j2ee/home/config/data-sources.xml` with the following data source information. It should replace the default information that is part of a fresh installation. Note that the hostname (`myserver.mydomain`), listener port (1521), and SID (`HTB`) in the URL setting are sample values. The IP Address is sometimes used instead of the hostname if there are DNS lookup issues.
2. Modify `$ORACLE_HOME/j2ee/home/config/data-sources.xml` to add the details at the bottom of the file, before `</data-sources>`, substituting the variables with the correct values as follows:

```
<!-- Additional entry for Heathcare OracleAppsDS. --><connection-pool
name="OracleApps Connection Pool" num-cached-statements="200">
<connection-factory factory-class="oracle.jdbc.pool.OracleDataSource"
user="apps" password="apps"
url="jdbc:oracle:thin:@hostname.domainname:port:ORACLE_SID">
</connection-factory> </connection-pool> <managed-data-source
name="OracleAppsDS" connection-pool-name="OracleApps Connection Pool"
jndi-name="jdbc/OracleAppsDS" /></data-sources>
```

3. Edit `$OC4J_HOME/j2ee/home/config/transaction-manager.xml` with the following additional timeout information: `transaction-timeout="600"`
4. Stop and restart stand-alone OC4J using the following scripts: `cd $OC4J_HOME/j2ee/home ./stopoc4j.sh ./startoc4j.sh`
5. Check the `$OC4J_HOME/j2ee/home/startoc4j.log/code` file for errors.

## 4.2.9 Post-installation Steps for version 5.x Outbound Messages

1. Create HTBCLIENT directory structure with required java classes.cd \$OC4J\_HOME  
mkdir htbcient\$OC4J\_HOME/htbcient is now be addressed as \$HTBCLIENT.
2. Copy the following jar files into \$HTBCLIENT:
  1. \$OC4J\_HOME/j2ee/home/lib/jms.jar
  2. \$OC4J\_HOME/j2ee/home/oc4j.jar
  3. \$OC4J\_HOME/j2ee/home/oc4jclient.jar
  4. \$OC4J\_HOME/j2ee/home/lib/servlet.jar
  5. \$OC4J\_HOME/j2ee/home/lib/ejb.jar
  6. \$OC4J\_HOME/j2ee/home/lib/jta.jar
  7. \$OC4J\_HOME/j2ee/home/lib/jmxri.jar
  8. \$OC4J\_HOME/diagnostics/lib/ojdl.jar
3. Update the AF\_CLASSPATH in \$APPL\_TOP/admin/adovars.env to include customizations:
4. #Begin Customizations
5. OC4J\_HOME=/u01/oracle/htb\_oc4j
6. export OC4J\_HOME
7. HTBCLIENT=\$OC4J\_HOME/htbcient
8. export HTBCLIENT
9. Copy and modify AF\_CLASSPATH based on your current AF\_CLASSPATH to include the following list, ensuring that the list is ordered as recommended here: Note that the bold entries notify the required additional list. For example. Old AF\_CLASSPATH=/slot/ems1588/appmgr/apps/tech\_st/10.1.3/appsutil/jdk/lib/dt.jar:/slot/ems1588/appmgr/apps/tech\_st/10.1.3/appsutil/jdk/lib/tools.jar: /slot/ems1588/appmgr/apps/tech\_st/10.1.3/appsutil/jdk/jre/lib/rt.jar:/slot/ems1588/appmgr/apps/apps\_st/comn/java/lib/appsborg2.zip: /slot/ems1588/appmgr/apps/apps\_st/comn/java/classes New AF\_CLASSPATH=**\$HTBCLIENT:/slot/ems1588/appmgr/apps/apps\_st/app/ctb/12.0.0:/slot/ems1588/appmgr/apps/tech\_st/10.1.3/appsutil/jdk/lib/dt.jar:/slot/ems1588/appmgr/apps/tech\_st/10.1.3/appsutil/jdk/lib/tools.jar:/slot/ems1588/appmgr/apps/tech\_st/10.1.3/appsutil/jdk/jre/lib/rt.jar:/slot /ems1588/appmgr /apps/apps\_st/comn/java/lib/appsborg2.zip: /slot/ems1588/appmgr/apps/tech\_st/10.1.3/rdbms/jlib/aqapi.jar:/slot/ems1588 /appmgr/apps/tech\_st/10.1.3/rdbms/jlib/jmscommon.jar:\$HTBCLIENT/ejb.jar:\$HTBCLIENT/jmxri.jar:\$HTBCLIENT/oc4j.jar:\$HTBCLIENT/servlet.jar:\$HTBCLIENT/jms.jar:\$HTBCLIENT/oc4jclient.jar:\$HTBCLIENT/ojdl.jar:** /slot/ems1588/appmgr/apps/apps\_st/comn/java/classes where /slot/ems1588/appmgr/apps/apps\_st/app/ctb/12.0.0 represents the full path to \$CTB\_TOP and /slot/ems1588/appmgr/apps/tech\_st/10.1.3 represents the full path to \$IAS\_ORACLE\_HOME.
10. export AF\_CLASSPATH
11. #End Customizations



12. Create a file `jndi.properties` under `$HTBCLIENT` with the following lines:  
`java.naming.factory.initial=com.evermind.server.rmi.RMIInitialContextFactory`  
`java.naming.provider.url=ormi://<hostname>:<port>/htb`



---

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## Configuring Initial HTB Setup

The HTB instance is now deployed. It requires certain amount of initial configuration to start configuring and using the instance for your particular implementation. If it is not already running, you must start your HTB instance before continuing.

This section contains the following topics:

- [Assigning Necessary Profiles and Responsibilities to HTB Admin Account](#)
- [Configuring HTB Object Default Owning Organization](#)
- [Setting HTB Object Identifiers](#)
- [Configuring Necessary DQM Options](#)
- [Configuring EMPI Context](#)
- [Creating Operating Unit](#)
- [Installing HTB Gateway \(Optional\)](#)
- [Adding Environment Variables to the New Instance](#)
- [Loading Metadata for IMP, OMP, and MTK](#)
- [Running ETS Maintenance Program](#)

### 5.1 Assigning Necessary Profiles and Responsibilities to HTB Admin Account

1. Log into the Oracle E-Business Suite UI as sysadmin/sysadmin. The URL will include the port that the Apache server created during the E-Biz install.
2. Select **system administrator** responsibility.
3. Select **System** under Profile heading. This displays Oracle Applications.
4. Deselect **Site** option in the Display group.
5. Select **Application** option in the Display group.
6. Enter `Clinical Transaction Base` in the associated field.
7. Enter `FND: Migrated to JRAD` in the search field next to the Profile textbox.
8. Click **Find** to return the current setting.
9. Select **Yes** and save the configuration.
10. Enter `Healthcare Terminology Server` in the application field.
11. Enter `FND: Migrated to JRAD` in the search field again.

12. Click **Find** to return the current setting.
13. Select **Yes** and save the configuration.
14. Clear any values present in the application field.
15. Deselect **Application** option in the Display group.
16. Select **Site** option in the Display group.
17. Enter `FND: View Object Max Fetch Size` in the search field next to the Profile textbox.
18. Click **Find** to return the current setting.
19. Enter -1 as the new site level value.
20. Save the configuration.
21. Switch to the **Security>User:Define application** menu.
22. Create a new user **HTBADMIN** with a secure password. You will need to change the password on first login.
23. Switch to the **Security>User:Define Oracle Application**.
24. Add the following responsibilities to the new HTBADMIN user account. You can retrieve the account by using the **View > Query by Example** menu item to enter the HTBADMIN user and run the query. Do not change or add to the Effective Dates that are defaulted.
  - Healthcare Application Developer
  - Healthcare Configuration Administrator
  - Healthcare Messaging Administrator
  - Healthcare Security Administrator
  - Trading Community Manager
  - Global HRMS Manager
  - iSetup
  - System Administrator

Note that you may need to license HR using `adlicmgr.sh` to have the Global HRMS Manager responsibility show up.

## 5.2 Configuring HTB Object Default Owning Organization

Perform the following steps to configure HTB Object Default Owning Organization:

1. Using System Administrator responsibility, navigate to Profile: System application.
2. Find **HR:Business Group** profile option. Make note of the value set at site level for this profile option. The default value is Setup Business Group.
3. Find **CTB:Business Group ID** profile option and set the site level value same as the value found in the step 2.
4. Find **CTB: Security Profile** profile option.
5. Set **CTB: Security Profile** profile option to the site level value noted in the step 2.

These two profile options control the Owning Organization and Security Profile for all of the HL7 RIM objects that you will create and query using messaging and HTB APIs.

## 5.3 Setting HTB Object Identifiers

Configure HTB Internal Object Identifiers using the Healthcare Configuration User Interface. Refer to *HTB User Interface Guide* (Configuring Object Identifiers (OIDs)).

## 5.4 Configuring Necessary DQM Options

This step is optional and is required only if you plan to use Oracle Trading Community Architecture's (TCA) Data Quality Management tool (DQM) to identify duplicate person entries. DQM is installed when you install Oracle E-Business Suite Release 12. To configure DQM options for HTB, refer to *HTB Implementation and System Administrator Guide* (Using TCA DQM).

## 5.5 Configuring EMPI Context

The EMPI Match and Dedup context is required for HTB to properly create persons. This does not enable any matching. It only provides the context for the matching and deduplication checks should they be configured. The context can be setup using EMPISetup.java code. This puts the default organization into your HTB database. Make note of this organization and do not remove it. You will need to update the variables for your specific instance. Note that this code requires your client to be setup including the configuration of jndi.properties and the presence of the htbcInt.jar file from \$CTB\_TOP/java/jar on the server.

## 5.6 Creating Operating Unit

An Operating Unit is required to use Concurrent Manager with E-Business Suite (EBS) R12. The following steps describe the process to create a dummy Operating Unit. If you plan to use General Ledger application features within EBS, you must define and create the Operating Unit carefully depending on the requirements of your organization.

1. Add the General Ledger Responsibility.
  - a. Log into apps using the System Administrator user.
  - b. Add the General Ledger Super User responsibility to the user.
  - c. Use \$ADMIN\_SCRIPTS\_HOME/adoacorectl.sh to stop and restart apps so that the new responsibility exists when you log in again.
2. Edit the Flexfields.
  - a. With the Oracle Ledger Super User responsibility navigate to **Setup > Financials > Flexfields > Keys > Segments**
  - b. Use **View/Find** menu option to find the application: **General Ledger** with title **Accounting Flexfield**
  - c. Click **OK**.
  - d. Select the current structure, select **Allow Dynamic Inserts**.
  - e. Click **Segments** and add two new segments. The names are not important.
  - f. Create two Value Sets to use in your two new segments (**Value Set** button). Validation Type cannot be None. They can both be set to Independent. You can close the Value Set window and then select the newly created Value Sets from the Segment summary.

- g. Use the **Flexfield Qualifiers** button to select a qualifier for each segment. One segment must have the qualifier Natural Account Segment and the other one Balancing Segment.
  - h. Save everything?, navigate back to Key Flexfield Segments window listing Structures.
  - i. Select **Freeze Flexfield Definition** and compile your structures.
  - j. Navigate back to Segments and verify that Value Sets are still associated with Segments. If not, deselect **Freeze Flexfield Definition**, select **Value Sets** again and go back to the step h.
3. Create a Calendar.
- a. Navigate to **Setup > Financials > Calendars** and select **Types**.
  - b. Create a new **Period Type** with 1 period per year. Save changes and close Period Types window.
  - c. Navigate to **Setup > Financials > Calendars** and select **Accounting**.
  - d. Create a new calendar.
    - a. Populate the **Calendar** field with any name.
    - b. Populate the **Prefix** field with any name.
    - c. Select the **Type** field and then use the elipsys to select your recently created **Period Type**.
    - d. Populate the Year with the current year, the Quarter and Num field both with the number 1.
    - e. Select valid dates for both the **From** and **To** fields and the **Name** gets populated for you. The dates do not need to be in the future for this to work.
4. Setup a new Account.
- a. Navigate to **Setup > Financials > Accounting Setup Manager** and select **Accounting Setups**.
  - b. Click **Create Accounting Setup**.
  - c. Click **Create a Legal Entity** and fill in the required fields with information. Search for your territory. Examples of territories are United States and Canada. Use **Create New Address** if there are no existing addresses to select.
  - d. Click **Apply** to complete creation of your new Legal Entity.
  - e. Navigate back on **Create Accounting Setup > Assign Legal Entities** screen, click **Add Another Row** and then select your Legal Entity.
  - f. Go to the next step? and enter a name for your Primary Ledger.
  - g. Select **Accounting Flexfields in Charts Accounting**, your calendar in Accounting Calendar and put USD for Currency.
  - h. Click **Next** and then click **Finish** to validate your new Ledger.
  - i. Click on **Define Accounting Options**.
  - j. Click the **Update** icon for the Ledger Options row on your new Primary Ledger.
  - k. Do not modify anything and click **Next** until you finish the process by clicking **Finish**.

- i. Select **Complete**.
  - m. Click **Yes** to save your new accounting setup.
  - n. Select Return to Accounting Setup.
  - o. Click **Go** next to **Search by Ledger** and select **Update Accounting Options** on your ledger.
  - p. Click the Update icon for the Operating Units row on your new Primary Ledger.
  - q. Select **Add Operating Unit** and enter a unique name.
  - r. Select **Setup Business Group** for your Business Group and your new Legal Entity for the **Default Legal Context**.
  - s. Click **Apply**.
  - t. Select **Complete** and the Operating Unit is available.
5. Set the Profile Options.
    - a. Using the System Administrator Responsibility navigate to **Profile** and select **System** to open Forms
    - b. Verify/set the following profile options:
      - a. MO: **Security Profile** set to **Setup Business Unit**
      - b. MO: **Operating Unit** set to the Operating Unit you created

## 5.7 Installing HTB Gateway (Optional)

This is an optional step and is only needed if you are using HL7 messaging and require MLLP interface support.

You now should have a newly configured HTB environment. To let the source systems or an interface/integration engine send message to the Inbound Message Processor via an HL7 MLLP interface, you must install HTB Gateway. HTB Gateway is supplied in a zip file under CTB\_TOP on your E-Business Suite Apps server. Log in as the appl user and perform the following steps to install HTB Gateway to your new instance.

1. Unzip HTB Gateway at the same level as the IAS Oracle Home by issuing the following commands:

```
cd $IAS_ORACLE_HOME/..unzip $CTB_TOP/java/HTBGateway.zip
```

This creates the HTBGateway\_V5 directory structure at the same level as the \$IAS\_ORACLE\_HOME.

2. Update the jndi.properties and config.xml files in the config directory with the hostnames, port numbers, and user information for your new instance.
3. Copy the htbcnt.jar file from under \$CTB\_TOP/java/jar to the HTBGateway\_V5/lib directory. Once these changes have been applied, you can start HTB Gateway by using the startGateway.sh script provided.

## 5.8 Adding Environment Variables to the New Instance

Oracle E-Business Suite creates certain environment variable files for you. There is also a mechanism to extend this set of variables in such a way that future upgrades or patch applications do not modify your settings. Perform the following steps to configure your environment variables properly:

1. On the Database Server, logged in as the oracle owner, there is a .bash\_profile file in your home directory. Edit this file and add the following line at the end of the file. You must replace \${ORACLE\_HOME} with the actual location where you created your oracle home for the database. You must also replace the <\${ORACLE\_SID}\_\${HOSTNAME}> with the actual env file that exists in your database owner oracle home.

```
. ${ORACLE_HOME}/<${ORACLE_SID}_${HOSTNAME}>.env
```

2. On the Applications Server logged in as the appl manager user there is a .bash\_profile file in your home directory. Edit this file and add the line at the end of the file. Replace \${APPL\_TOP} with the actual path of \$APPL\_TOP.

```
. ${APPL_TOP}/APPSORA.env
```

3. If you look at the \$APPL\_TOP/APPSORA.env file you will see that it is preconfigured to all your applications environment files that are created by autoconfig. It has already added the sourcing of a custom<\${ORACLE\_SID}\_\${HOSTNAME}>.env file. You should create this file and add the following contents to the file. The value of "/u01/oracle" is used as an example only. The last set command assumes that you want to have vi as the default editor. The OC4J\_HOME is dependant on whether you performed a 10gAS or Stand Alone OC4J installation. In the 10gAS installation, the HTBCLIENT is not needed.

```
OC4J_HOME=/u01/oracle/htb_oc4jHTBGATEWAY=/u01/oracle/HTBGateway_V5export OC4J_HOME HTBGATEWAYHTBCLIENT=${OC4J_HOME}/htbclientexport HTBCLIENTPATH=$PATH:.export PATHset -o vi
```

4. Save and exit the file and you will have the correct environment variables set on each server when you log in.

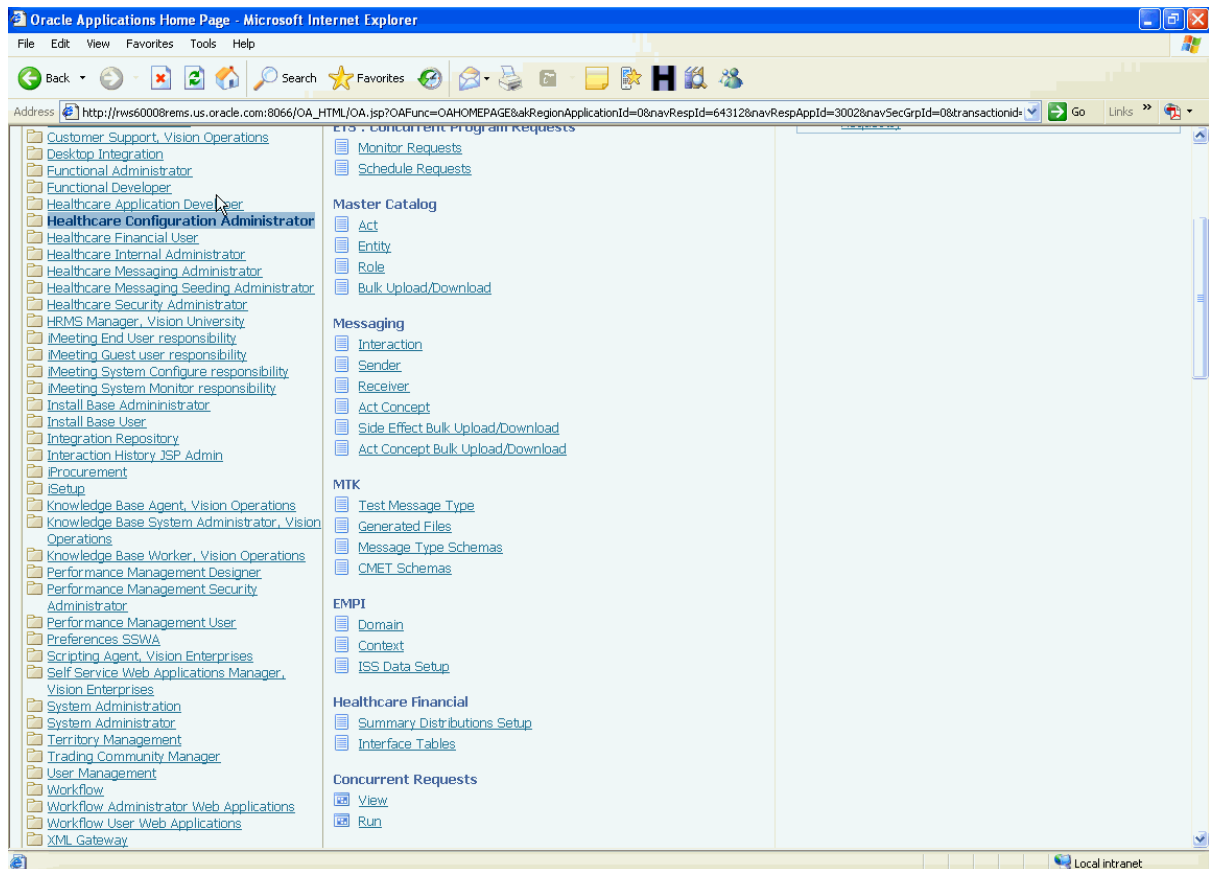
## 5.9 Loading Metadata for IMP, OMP, and MTK

This step is optional and is required only if you plan to use IMP, OMP, and MTK. Perform the following steps to load metadata:

1. Log into the Oracle E-Business Suite UI as HTBADMIN user.
2. Select Healthcare Configuration Administrator Responsibility.
3. Select **Run** under **Concurrent Requests**.

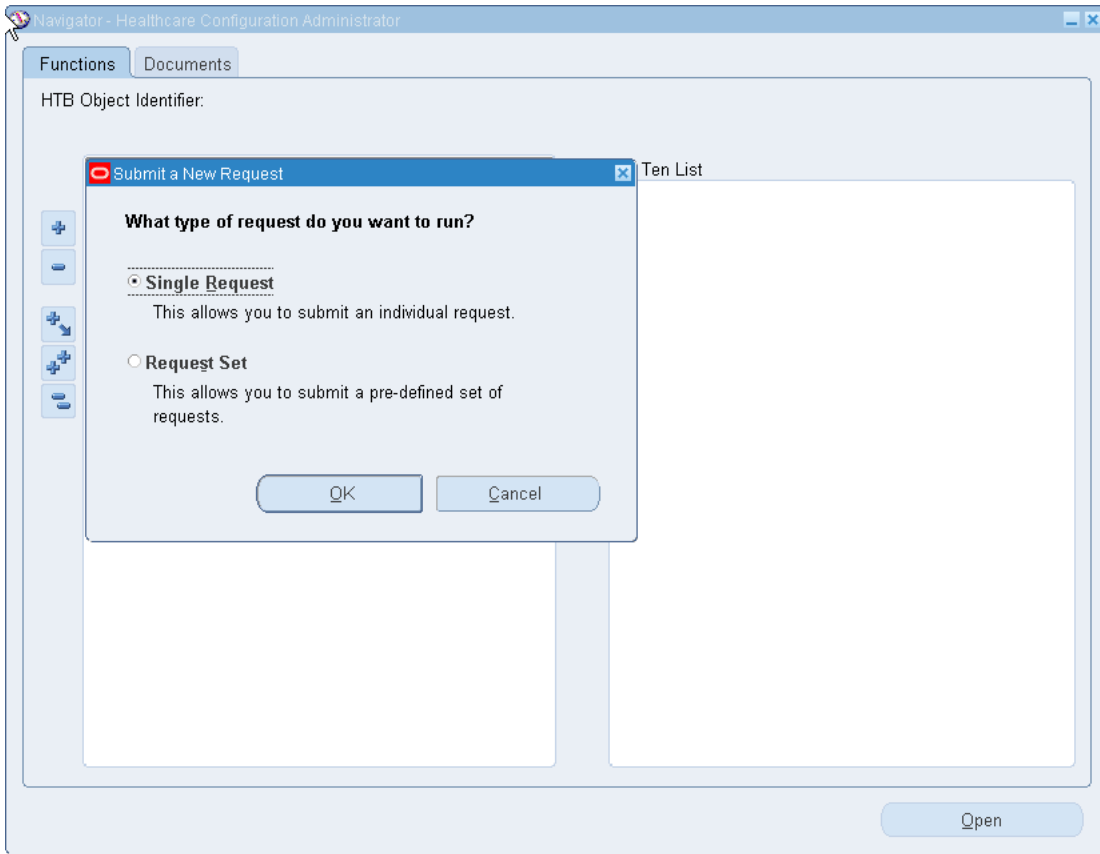


Figure 5–1 Concurrent Request Menu



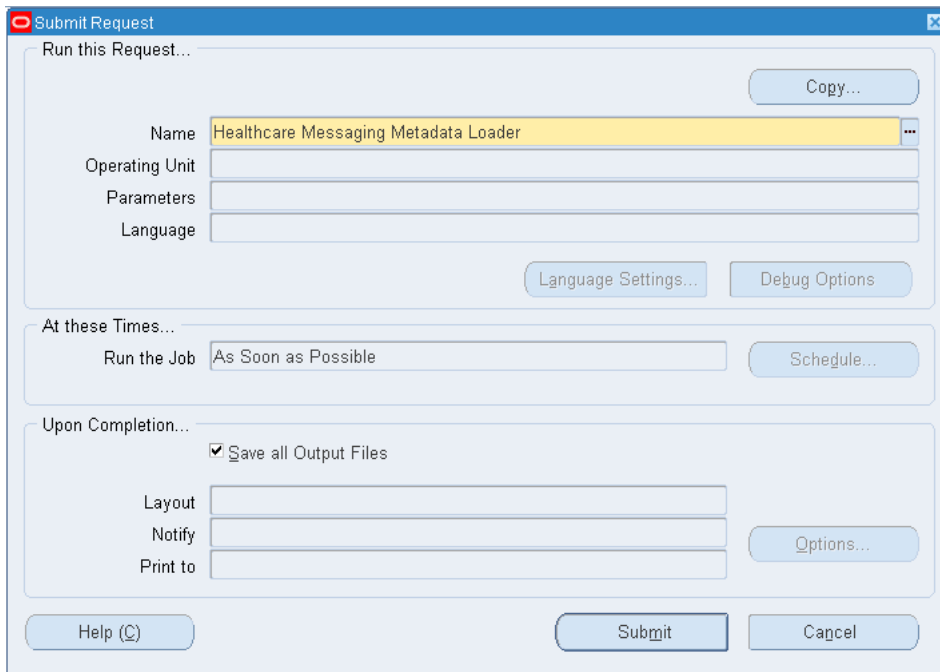
#### 4. Select Single Request type

**Figure 5–2 Submit a New Request Window**



5. In the Run this Request window, enter Healthcare Messaging Metadata Loader in the name field.

**Figure 5–3 Run this Request Window**



6. Click **Submit** to execute the *Healthcare Messaging Metadata Loader* concurrent program.

The concurrent program extracts metadata from messaging MIF files and loads it into the following tables:

- CTB\_MS\_CMPLX\_TYP\_METADATA
- CTB\_MS\_CMPLX\_TYP\_ATTRBTS

Since this metadata is used by IMP, OMP, and MTK, it is a prerequisite for using these three components. Concurrent program truncates both the tables before loading metadata so it can be executed more than once, if there is any system error.

## 5.10 Running ETS Maintenance Program

To create all the language mappings in a new instance of HTB, you must run the Healthcare ETS Maintenance Program in the DEFAULT mode after the installation.

1. Log into the Oracle E-Business Suite UI as HTBADMIN user.
2. Click **Healthcare Configuration Administrator**.
3. Under **ETS: Concurrent Program Requests**, click **Schedule Requests**.
4. For **Program Name**, enter 'Healthcare ETS Maintenance Program' as the field.
5. For **Request Name**, provide a name to identify this running instance of the concurrent program such as 'ETSMaintenance1'. Click **Next**.
6. For **Run Mode**, enter DEFAULT. Click **Next**.
7. Review the schedule details and make changes if required. Click **Next**.
8. Review the Notifications field and make changes if required. Click **Next**.
9. Review the Printing settings and make changes if required. Click **Next**.
10. Review the summary settings. Click **Submit** to submit the Concurrent Program request.
11. Once submitted, click **OK** and review the status of all the requests submitted. Identify your request id and click it to monitor the detailed logs or status.



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## Verifying the HTB Instance

To perform a test on the new HTB instance, you may run the `SessionTest.java` code supplied. This code tests the creation of a session, user login, `ETSService` and `MasterCatalogService`, and the query functionality of `RIMService`.

Note that this code requires your client to be setup including the configuration of `jndi.properties` and the presence of the `htbclnt.jar` file from `$CTB_TOP/java/jar` on the server. For additional testing, refer to the *Oracle Healthcare Transaction Base Programmer's Guide* on setting up your client side environment and sample code for several use cases. You can find a link to all HTB related material on My Oracle Support.



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## Backing Up HTB

It is useful to have a hard backup of the entire system as a safety point. The use of tar backups can be regularly updated and a strategy to possibly have snapshots of various stages of the development cycle can ensure safe rollbacks. Oracle recommends that a freshly installed system be backed up immediately after basic testing as it will enable the user to rollback to an empty database. Create a tar/zip backup after totally shutting down the system and move the backup files to an external data store.

Steps 1 to 3 below apply to all operating systems while steps 4 to 6 are only for Linux. Note that if a RAC database is installed, the database must be backed up by other means such as the Oracle RMAN tool. The process below does not take into account the existence of RAC database nodes and ASM space management. The root user should be used to perform the following backups so that all the files can be accessed. If root is not available make sure that you have read access to all the files in each file system. Perform the following steps to back up HTB:

1. Back up the E-Business Applications Tier. If you are installing HTB in multi-user configuration, all Applications Tier components are located within the appmgr user \$HOME directory structure. For Oracle Applications E-Business Suite R12, all Applications Tier components are installed within the \$HOME/apps and \$HOME/inst subdirectories. The main Applications Tier components consist of the following directory structures: \$APPL\_TOP\$COMMON\_TOP\$INST\_TOP\$ORACLE\_HOME\$IAS\_ORACLE\_HOME. For example, if a business suite instance htb6prod is installed, on server unix01 and filesystem /u01 using Unix user appmgr, with the following subdirectories: \$APPL\_TOP=/u01/appmgr/apps/apps\_st/appl\$COMMON\_TOP==/u01/appmgr/apps/apps\_st/comn\$INST\_TOP=/u01/appmgr/inst/apps/htb6prod\_unix01ORACLE\_HOME=/u01/appmgr/apps/tech\_st/10.1.2IAS\_ORACLE\_HOME=/u01/appmgr/apps/tech\_st/10.1.3.

you can back up \$HOME/apps and \$HOME/inst and include all the subdirectories to complete it's Applications Tier backup.

2. Back up the Database Tier by including the data and db files on the Database Tier Server. If you are installing HTB in multi-user configuration, all Database Tier components are located within the oracle user \$HOME directory structure. For Oracle Applications E-Business Suite R12, all Oracle Tier components are installed within the \$HOME/db subdirectories. The main Oracle Tier components consist of the following directories: \$ORACLE\_HOME \$DATA\_TOP. For example, if a business suite instance htb6prod is installed, on server unix01, and filesystem /u01 using Unix user oracle, the main Oracle Tier will consist of the following directories: \$ORACLE\_HOME=/u01/oracle/db/tech\_st/10.2.0 DATA\_TOP=/u01/oracle/db/apps\_st/data You can back up \$HOME/db and include all the subdirectories to complete it's Database Tier backup.

- 
3. Back up the HTB version deployed on the Application Server Tier by including the OC4J directory. If this is from a 10gAS mid tier install, the directory is named according to your instance name. For a stand alone installation, it is named according to the directory where you unzipped the oc4j-extended.zip file.
  4. Back up the home directories for all users.
  5. Back up the /etc/oraInst.loc file from all servers.
  6. Back up the /etc/oraInventory and /etc/oratab directories. Note that it assumes that the oraInst.loc file points to /etc as the location of the oraInventory.



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## Running the adsplice Utility

The adsplice utility operates by reading information specific to a product and splices that product into the Oracle Applications database. This also includes the creation of a new schema. The way this utility functions is impacted by whether or not Oracle Automatic Table Management (OATM) is implemented. If you are performing a fresh installation on a database created using the latest rapidwiz for the 12.0.4 E-Business Suite, you will have OATM enabled. If you are applying it to an older E-Business Suite installation that has been upgraded to the required release, your tablespaces may not have OATM enabled.

To check whether your instance is OATM enabled, run the following commands from SQL\*Plus:

```
select tablespace_name from dba_tablespaces where tablespace_name in ('APPS_TS_
TX_DATA','APPS_TS_TX_IDX'); TABLESPACE_NAME -----
APPS_TS_TX_DATA APPS_TS_TX_IDX
 select distinct default_tablespace from dba_users where username in (select
oracle_username from apps.fnd_oracle_userid where oracle_username not
in('CTXSYS','ODM')); DEFAULT_TABLESPACE ----- APPS_TS_
TX_DATA
```

If the above outputs are present then it is an OATM enabled environment, otherwise it is not.

1. Navigate to the directory, where the patch was unzipped, For example, \$HOME/patch/ 5497423
2. From this location change the directory to [product\_name]/admin
3. Open **newprods.txt** and change the content as follows:For OATM enabled environment:

```
main_tspace=APPS_TS_TX_DATA index_tspace=APPS_TS_TX_IDX temp_
tspace=TEMP <-- check this from DB default_tspace=APPS_TS_TX_DATA
```

For Non-OATM enabled environment:

```
main_tspace=[PRODUCT_NAME]D index_tspace=[PRODUCT_NAME]X temp_
tspace=TEMP <-- check this from DB default_tspace=[PRODUCT_NAME]D
```

Example for Non-OATM enabled environment and CTB product:

```
main_tspace=CTBD index_tspace=CTBX temp_tspace=TEMP
default_tspace=CTBD
```

4. Save the modified **newprods.txt** and position it in \$APPL\_TOP for use.
5. Copy \*.txt from [product\_name]/admin in \$APPL\_TOP/admin

6. Create the `DATA` and `INDEX` tablespaces (only for Non-OATM enabled environment). Skip step 7 to 9 if OATM is enabled.
7. Verify the default location for product data tablespaces by running the following from SQL\*Plus:

```
select distinct TABLESPACE_NAME, FILE_NAME from dba_data_files;
```

Example (for CTB):

```
SQL> select distinct TABLESPACE_NAME, FILE_NAME from dba_data_files 2 where
TABLESPACE_NAME like 'CTB%'; TABLESPACE_NAME -----
FILE_NAME
```

```

- CTBD /dppoli/oradata/data01/ctbd01.dbf
```

```
CTBX
```

```
/dppoli/oradata/data01/ctbx01.dbf
```

The default location usually looks like `'/[sid]/oradata/data[nn]'`

8. If the tablespace, you are specifying as the default tablespace does not exist, create the tablespaces as follows:

```
create tablespace [PROD_NAME]D datafile
'/[sid]/oradata/data[nn]/[prod]d01.dbf' size [nn]M AUTOEXTEND ON NEXT 5M MAXSIZE
[nn]M;
```

9. Create tablespace `[PROD_NAME]X` datafile

```
'/[sid]/oradata/data[nn]/[prod]x01.dbf' size [nn]M AUTOEXTEND ON NEXT
5M MAXSIZE [nn]M;
```

Example (for CTB):

```
create tablespace CTBD datafile '/dsslti/oradata/data01/ctbd01.dbf' size 50M
AUTOEXTEND ON NEXT 5M MAXSIZE 75M; create tablespace CTBX datafile
'/dsslti/oradata/data01/ctbx01.dbf' size 50M AUTOEXTEND ON NEXT 5M MAXSIZE 75M;
```

10. Back up of the following configuration files:
  - `$CONTEXT_FILE`
  - environment file
11. Run `ADSPLICE` utility as follows:
  - a. Change directory to `$APPL_TOP/admin`
  - b. Run `adsplce`
  - c. Select `newprods.txt` as AD Splicer control file
  - d. Note that when AD Splicer asks: "Do you wish to regenerate your environment file?", answer **No**. You can specify **Yes** to regenerate the environment file when you run `adsplce` with the last product you want to add with the splicer.
12. After the last product is added using `adsplce`, and the environment file has been regenerated, check the `$CONTEXT_FILE` as follows:
  - a. Open `$CONTEXT_FILE` and locate the section where all product tops are defined

- b. Check the new product top entry has been added into this section with respect to the alphabetical order

For CTB - When environment file has been regenerated after all products have been spliced:

```
...<HCT_TOP oa_var="s_hcttop" oa_type="PROD_TOP" oa_
enabled="FALSE">/u01/appmgr/apps/apps_st/appl/hct/12.0.0</HCT_TOP><HCP_TOP
oa_var="s_hcptop" oa_type="PROD_TOP" oa_
enabled="FALSE">/u01/appmgr/apps/apps_st/appl/hcp/12.0.0</HCP_TOP><CTB_TOP
oa_var="s_ctbtop" oa_type="PROD_TOP" oa_
enabled="FALSE">/u01/appmgr/apps/apps_st/appl/ctb/12.0.0</CTB_TOP> ...
```

- 13. If multiple MTs are used: If the APPL\_TOP is *not* shared, repeat all the steps 5, 6, and 7 for the remaining MTs. For shared APPL\_TOP installations repeat only the steps 5 and 7 for the remaining MTs. You do not need to re-run ADSPLICE.
- 14. Log out and log in again in Unix for the changes to take effect
- 15. Verify that the new product has been spliced properly by checking:

- a. if environment variable for \$PRODUCT\_TOP is set
- b. the directory structure
- c. if the new product has been spliced properly into the FND\_PRODUCT\_INSTALLATIONS table by running the following from SQL\*Plus:

```
COL app_s_name FORMAT a16 COL inst_status FORMAT a15 COL product_version
FORMAT a12 COL patchset FORMAT a15 COL appl_id FORMAT 99999 select
fav.application_id APPL_ID, fav.application_short_name app_s_name,
decode(fpi.status,'I','Installed','S','Shared','N','No', fpi.status) inst_
status, fpi.product_version, nvl(fpi.patch_level, 'Not Available')
patchset from fnd_application_vl fav, fnd_product_installations fpi
where fav.application_id = fpi.application_id and fav.application_short_
name = '&product_name'; Check if both DATA and INDEX tablespaces exist
```

Example (for CTB):

```
$ echo $CTB_TOP /u01/appmgr/apps/apps_st/appl/ctb/12.0.0
$ ls -lrt $CTB_TOP total 32 drwxr-xr-x 2 apdclo4i aadclo4i 4096 Apr 16
2006 sql drwxr-xr-x 2 apdclo4i aadclo4i 4096 Apr 16 2006 out drwxr-xr-x 2
apdclo4i aadclo4i 4096 Apr 16 2006 mesg drwxr-xr-x 2 apdclo4i aadclo4i
4096 Apr 16 2006 log drwxr-xr-x 4 apdclo4i aadclo4i 4096 Apr 16 2006 admin
drwxr-xr-x 3 apdclo4i aadclo4i 4096 Apr 16 2006 patch drwxr-xr-x 3
apdclo4i aadclo4i 4096 Jul 15 23:29 bin drwxr-xr-x 2 apdclo4i aadclo4i
4096 Jul 15 23:29 html
```

```
SQL> select fav.application_id APPL_ID, fav.application_short_name app_s_
name, decode(fpi.status,'I','Installed','S','Shared','N','No', fpi.status)
inst_status, fpi.product_version, nvl(fpi.patch_level, 'Not Available')
patchset from fnd_application_vl fav, fnd_product_installations fpi where
fav.application_id = fpi.application_id and fav.application_short_name =
'&product_name';
```

Enter value for product\_name: CTB

```
old 8: and fav.application_short_name = '&product_name' new 8: and
fav.application_short_name = 'CTB'APPL_ID APP_S_NAME INST_STATUS PRODUCT_
VERS PATCHSET -----
----- 3002 CTB Installed 12.0.0
R12.CTB.A.1
```

