Oracle Enterprise Taxation Management

Installation Guide

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Oracle Enterprise Taxation Management Installation Guide

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Contents

Contents

Chapter 4

Chapter 5

Chapter 6

Chapter 7

Appendix A

Appendix B

Appendix C

Preface

This guide describes how to install Oracle Enterprise Taxation Management.

This preface contains these topics:

- **Audience**

- **Documentation Accessibility**

- **Related Documents**

- **Conventions**

Audience

Oracle Enterprise Taxation Management Installation Guide is intended for system administrators installing Oracle Enterprise Taxation Management.

To use this document you should have:

- Experience installing and configuring application servers and other software

- Administrative privileges on the host where you are installing the software

Documentation Accessibility

Our goal is to make Oracle products, services, and supporting documentation accessible, with good usability, to the disabled community. To that end, our documentation includes features that make information available to users of assistive technology. This documentation is available in HTML format, and contains markup to facilitate access by the disabled community. Accessibility standards will continue to evolve over time, and Oracle is actively engaged with other market-leading technology vendors to address technical obstacles so that our documentation can be accessible to all of our customers. For more information, visit the Oracle Accessibility Program Web site at

`http://www.oracle.com/accessibility/`

Accessibility of Code Examples in Documentation

Screen readers may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, some screen readers may not always read a line of text that consists solely of a bracket or brace.

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TTY Access to Oracle Support Services

Oracle provides dedicated Text Telephone (TTY) access to Oracle Support Services within the United States of America 24 hours a day, seven days a week. For TTY support, call 800.446.2398.

Related Documents

For more information, see these Oracle documents:

- *Oracle Enterprise Taxation Management Quick Install Guide*
- *Oracle Enterprise Taxation Management Database Administrator's Guide*
- *Oracle Enterprise Taxation Management Optional Third-Party Products Installation Guide*
- *Oracle Enterprise Taxation Management Operations and Configuration Guide*

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Chapter 1

Overview

This chapter provides an overview of the installation of Oracle Enterprise Taxation Management, including:

- **Installation Overview**
- **What is this book?**

Installation Overview

Installing Oracle Enterprise Taxation Management involves the following steps:

1. Plan your installation as described in **Chapter 3: Planning the Installation**.

2. Install all required third-party software as described in **Chapter 4: Software Requirements**.

3. Install the Database as described in Oracle Enterprise Taxation Management *Database Administrator's Guide*.

4. Install the Oracle Utilities Application Framework as described in **Chapter 5: Installing the Oracle Utilities Application Framework**.

5. Install Oracle Enterprise Taxation Management as described in **Chapter 6: Installing Oracle Enterprise Taxation Management**.

6. Follow the installation guidelines described in **Chapter 7: Additional Tasks**.

What is this book?

This book describes how to install Oracle Enterprise Taxation Management, including the following:

- **Chapter 1**: **Overview** (this chapter) provides an overview of the process for installing Oracle Enterprise Taxation Management and describes the contents of this document.

- **Chapter 2**: **Supported Platforms and Hardware Requirements** provides an overview of the hardware requirements for installing the application, and the supported platforms for the application and database servers.

    Note: The installation and administration of the database server tier is described in detail in the document *Oracle Enterprise Taxation Management Database Administrator's Guide.*

- **Chapter 3: Planning the Installation** describes the steps that should be taken before installing the application.

- **Chapter 4**: **Software Requirements** describes the software that must be installed before installing the application framework. The required software is listed for each supported combination of operating system and application server.

- **Chapter 5**: **Installing the Oracle Utilities Application Framework** describes how to install the application framework that is required for Oracle Enterprise Taxation Management.

- **Chapter 6**: **Installing Oracle Enterprise Taxation Management** describes how to install the application.

- **Chapter 7**: **Additional Tasks** describes additional tasks that should be completed after installing the application.

Chapter 2

Supported Platforms and Hardware Requirements

This section gives an overview of the tiers on which the product is implemented, and shows each of the operating system/server combinations that the product is certified for. It includes:

- **Tier Overview**

- **Supported Platforms**

- **Support for Software Patches and Upgrades**

Tier Overview

The application is deployed on multiple Tiers:

Tier 1: Presentation - Implemented in a browser-based client

Tier 2: Business Logic - Implemented in the Web application server (If required, Web and application servers can be hosted on separate servers)

Tier 3: Persistence - Implemented in the database server

Tier 1: Software and Hardware Requirements

Configuration	Processor	Memory (RAM)	Monitor Display
Minimum	Pentium IV - 2.0 GHz	1024 MB	1024X768** 16-bit Color
Recommended*	Pentium IV - 3.0+ GHz, Or any Core 2 Duo Or any Athlon X2	2048 MB	1280X1024* 32-bit Color

* The Recommended configuration will support better performance of the client.

** To reduce the amount of scrolling required for pages that are longer than 768 or 1024 pixels, consider placing a monitor into vertical position (with narrow side on the bottom).

Web Browser Requirements

The following Operating System / Web Browser software is supported:

- Windows XP SP2 or higher with Internet Explorer 6.0 or higher, or 7.0

- Windows Vista or higher with Internet Explorer 7.0

Tier 2: Software and Hardware Requirements

Please consult the **Supported Platforms** on page 2-4 to determine which Web application servers can be used with the operating system that will be hosting this tier.

The recommendations that follow are based on a standard installation with both the application and business servers on the same machine and the system running with the default values. The minimum resource requirements exclude third-party software installation requirements. Refer to the third-party vendors for specific requirements. The following sizing excludes the Oracle database server installation.

Memory Requirements

For each application server environment a minimum of 3 GB of real memory is required, plus 6 GB of swap space.

Disk Space Requirements

The approximate disk space requirements in a standard installation are as follows:

Location	Size	Usage
$SPLEBASE	5 GB minimum	This space is where the application and Framework get installed. Startup, shutdown and other online log files are stored here. The size and space that is used should be monitored because various debugging options can significantly affect the size of log files.
$SPLAPP	2 GB	This space is used for storing batch log files and output from batch jobs. The size of this space should be influenced by which batches are run and how often, and the amount of debugging information that is collected.
Location of the application Web work files on the Web servers	1.5 GB minimum	This space is used by the various Web server vendors to expand the application. It should be considered when installing these products. Refer to the individual Web server documentation to determine the location of the temporary files.
Installation temporary area	4 GB	This space is the location from where the application gets installed. You need enough space to uncompress the files and install the application.
Oracle data area	4 GB minimum	This space is where the Oracle database data files are stored. The size of this space should be based on the requirements of the production environment. For an initial or demo database install 4 GB should be sufficient.

Tier 3: The Database Server

See the section **Supported Platforms** on page 2-4 for supported database servers.

Supported Platforms

The installation has been tested and certified to operate on many operating system, application server, and database server combinations. For the software requirements for each of these combinations, see **Chapter 4**: **Software Requirements** for more information.

Operating Systems and Application Servers

The following table details the operating system and application server combinations on which Oracle Enterprise Taxation Management V2.2.0 has been tested and certified.

Operating System	Chipset	Application Server			
		Oracle WebLogic 10 MP1	Oracle Application Server 10.1.3.1	IBM WebSphere Application Server 6.1.0.21	Tomcat 6.0.13
AIX 5.3 (64-bit) TL6 AIX 6.1 (64-bit)	Power 64-bit	32-bit version	32-bit version	32-bit version	N/A
HP-UX 11.23 (64-bit) HP-UX 11.31 (64-bit)	Itanium	64-bit version	64-bit version	N/A	N/A
Oracle Enterprise Linux 5 (64-bit) Red Hat Enterprise Linux 5 (64-bit)	AMD64 EMT64T	32-bit version	32-bit version	N/A	N/A
Solaris 10 (64-bit)	SPARC	64-bit version	64-bit version	N/A	N/A
Windows 2003 Server R2 SP2 (64-bit)	x86_64	32-bit version	32-bit version	N/A	32-bit version development only **no production support**
z/OS 1.9 (64-bit)		N/A	N/A	32-bit version **web server only**	N/A

Oracle Database Servers

Oracle Enterprise Taxation Management V2.2.0 has been certified with Oracle Database Server 10.2.0.3 and 11.1.0.6 on all of the operating systems listed above, except z/OS

Oracle Enterprise Taxation Management V2.2.0 supports Oracle Database Server 10g and 11g on all operating systems on which those servers are available.

The Oracle 11.1.0.6 client is required regardless of the version of the database server. Both Oracle 11g and Oracle 10g database servers require the use of an Oracle 11 client.

Third-Party Database Servers

Oracle Enterprise Taxation Management V2.2.0 has been certified with the following third-party database servers:

• DB2 9.1 on z/OS 1.9

• Microsoft SQL Server 2005 SP2 on Windows 2003 Server R2 SP2

Support for Software Patches and Upgrades

Due to the ongoing nature of software improvement, vendors will be issuing patches and service packs for the operating systems, application servers and database servers on top of specific versions that Oracle Enterprise Taxation Management has been tested with.

If it is necessary to apply an upgrade, please do that in a test environment prior to updating Oracle Enterprise Taxation Management production.

The only exceptions from this rule are Hibernate and CPIO software. For these the exact versions mentioned in this guide must be installed. Please always check with Oracle Enterprise Taxation Management support prior to installing Hibernate and C3PO updates.

Always contact Oracle Enterprise Taxation Management Support prior to applying vendor updates that do not guarantee backward compatibility.

Chapter 3

Planning the Installation

This chapter provides information for planning an Oracle Enterprise Taxation Management installation, including:

- **Planning Your System Architecture**

- **Installation and Configuration Overview**

- **Installation Checklist**

- **Prerequisite Third-Party Software Overview**

- **Installation and Configuration Worksheets**

Planning Your System Architecture

The following questions should be answered before beginning the installation:

- On which hardware platform and operating system will Oracle Enterprise Taxation Management be deployed?

- Which Web server product will Oracle Enterprise Taxation Management deploy on?

  - Oracle Application Server

  - Oracle WebLogic Server

  - WebSphere Application Server

- Which Database option will Oracle Enterprise Taxation Management deploy on?

  - Oracle

  - DB2

  - SQL

- Do you plan to deploy multiple Oracle Enterprise Taxation Management instances on the same physical server?

- How do you plan to deploy the Oracle Enterprise Taxation Management?

  - Web/Application/Database on the same physical server

  - Web/Application on one server and Database on separate server

  - Each component on it own server

Installation and Configuration Overview

The following diagram provides an overview of the steps that need to be taken to install and configure Oracle Enterprise Taxation Management:
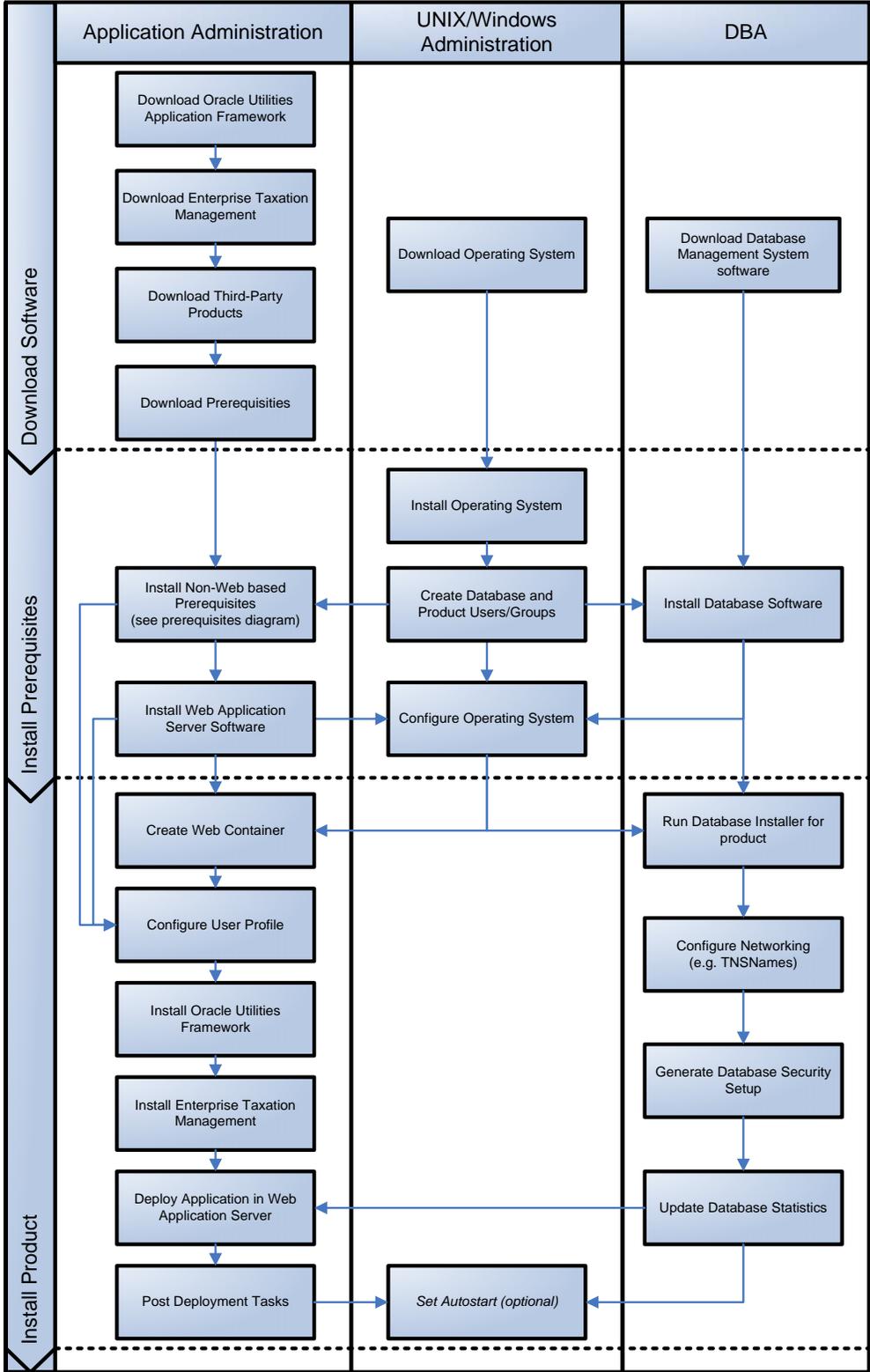
Installation Checklist

The following checklist will help guide you through installation process. The details for each step are presented in subsequent chapters.

1. Create Group/User id

2. Install Prerequisite Software (see **Prerequisite Third-Party Software Overview** on page 3-5 for more information).

   - Oracle client (for connecting to Oracle database)

   - DB2 connect (for connecting to for DB2 database)

   - IBM C/C++ Compiler (needed for compiling Perl installation on AIX platform and for recompiling COBOL modules)

   - Micro Focus Server 5.0

   - Micro Focus Server 5.0 patches

   - Perl

   - Java

   - JRockit (if using WebLogic on Linux as an application server)

   - Hibernate

   - C3P0

   - HP C/ANSI C Developers bundle (for using Configlab, compiling Perl and recompiling COBOL on HP platform)

3. Install Optional Software

   The following software is not required for Oracle Enterprise Taxation Management to operate:

   - Perl module DBI (required if Configlab and Oracle database are used, and required for DBD and DBD-DB2)

   - Perl module DBD::Oracle (required if Configlab and Oracle database are used)

   - Perl module DBD-DB2 (required if Configlab and DB2 database are used)

   - Micro Focus Server Express, with patches (required for recompiling COBOL)

4. Install Web Server

   - Oracle Application Server

   - Oracle WebLogic

   - WebSphere

   - Tomcat (for development only)

5. Verify that software installed and set up environment variables.

6. Install Oracle Utilities Application Framework ("the framework")

7. Install Oracle Enterprise Taxation Management

8. Deploy Oracle Enterprise Taxation Management application

9. Optional third-party product integration (such as Web Self Service or reporting tools)

Prerequisite Third-Party Software Overview

For complete details about installing and configuring the prerequisite third-party software for your specific platform, see **Chapter 4: Software Requirements**. The following diagram represents an overview of the prerequisite software installation.
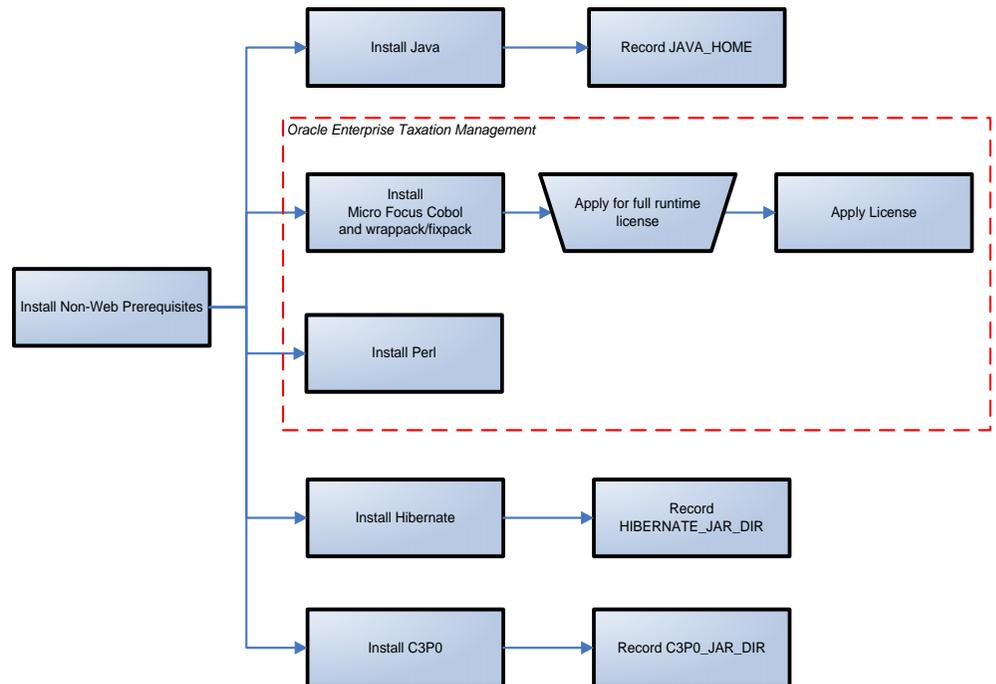
Installation and Configuration Worksheets

During the installation and configuration of the application you will need to provide a variety of system values. These worksheets will assist you in providing that information. They should be completed before installing the application framework, as described in **Chapter 5**: **Installing the Oracle Utilities Application Framework**. No Customer Install Value fields should be left blank.

The first time you enter the customer values the passwords will be visible. But the installation process will then mask the passwords in the configuration files.

> Note: Some web application server information will not be available until the software installation steps have been completed as described in **Chapter 4**: **Software Requirements**.

Environment Installation Options Worksheet

This worksheet will assist you in completing the main installation options menu as shown below.

```
*********************************************************
Environment Installation options:
*********************************************************
1. Application Mount point.               | /spl
2. Log Mount Point.                       | /spl/sploutput
3. Environment name.                      | V220_FW_DEV_LIN_ORA_WLS
4. Database type.                         | oracle
5. Web Application Server.                | WLS
6. Will CCB or TAX product be
installed on this environment [Y/N]?      | Y

P. Process the installation.
X. Exit.
```

Menu Option	Name used in this Documentation	Usage	Customer Install Value
Application Mount point	< SPLDIR>	A mount point (typically /spl for UNIX or c:\spl for Windows) into which the application is installed. This mount point MUST exist and the Oracle Utilities Framework administrator userid MUST be able to write to this directory. (this is the userid that is created specifically to administer the Oracle Utilities Framework environments: the default is cissys). The installation sets permissions on all subdirectories installed under this directory. See <SPLENVIRON> below for more information on how this mount point is used.	

Menu Option	Name used in this Documentation	Usage	Customer Install Value
Log Mount Point	< SPLDIROUT>	A mount point that will contain any application output or application logs that (default /spl/sploutput for UNIX installations or c:\spl\sploutput for Windows). Before you start the install, ensure that this mount point exists and that the Oracle Utilities Framework administrator userid (cissys) can write to this directory. For each environment initialized, the application logs will be written to the directory <SPLDIROUT>/ <SPLENVIRON> Note: Later in the installation, the splenviron.sh (splenviron.cmd) script will set the $SPLOUTPUT (%SPLOUTPUT%) environment variable to point to: <SPLDIROUT>/<SPLENVIRON>	
Environment name	<SPLENVIRON>	A descriptive name (to be used as both a directory name under the mount point <SPLDIR> and an environment descriptor) that typically identifies the purpose of the environment (e.g. DEV01 or QA03) On installation a directory <SPLDIR>/ <SPLENVIRON> is created under which all of the Framework and Application software resides.When multiple environments are setup on the machine you will typically have directories like: /spl/QA01/……… /spl/DEV01/…….. Each of which contains a complete version of the Oracle Utilities Framework and Oracle Utilities Application code. Note: Later in the installation, the splenviron.sh (splenviron.cmd) script will set the $SPLEBASE (%SPLEBASE%) environment variable to point to <SPLDIR>/<SPLENVIRON>	
Database type	<CMPDB>	Type of a database to connect an environment to.One of the following values corresponding to the different database vendors must be selected: oracle: Oracle db2: DB2 mssql: MS SQL For complete details regarding which database types are supported on what, please refer to Supported Platforms section.	

Menu Option	Name used in this Documentation	Usage	Customer Install Value
Web Application Server	<SPLWAS>	A Web Application Server for environment to setup with.One of the following values corresponding to third party product options must be selected: WLS: WebLogic WAS: WebSphere TCAT: Apache Tomcat OAS - Oracle Application Server OC4J - OC4J Standalone Not all Web Application servers are supported on all platforms; refer to Supported Platforms section for details.	
Will CCB or TAX product be installed on this environment [Y/N]?	<IFCCB>	Will a Cobol enabled application (such as Customer Care and Billing or Enterprise Taxation Management) be installed on top of the Framework? If you are installing Oracle Utilities Business Intelligence you should enter "N".	

Environment Description Worksheet

```
1. Environment Description
   Environment Description:              QA environment
```

Menu Option	Name used in this Documentation	Usage	Customer Install Value
Environment Description	DESC	Environment Description	

General Business App Server Configuration Worksheet

```
2. Business App Server Configuration
   Business Server Host:                    sf-win
   JVM Child process starting Port Number:  6503
   Number of JVM Child processes:           2
   Weblogic System Userid:                  system
   Weblogic System Password:                spladmin
```

Menu Option	Name used in this Documentation	Usage	Customer Install Value
Business Server Host	BSN_WLHOST	Defaults to the name of the machine that the installation program is running on.The host name on which Business Application Sever resides.	
JVM Child process starting Port Number	BSN_RMIPORT	Default: 6503 *Required only for ETM and CC&B*	
Number of JVM Child processes	BSN_JVMCOUNT	Default: 2 *Required only for ETM and CC&B*	

General Web Server Configuration Worksheet

```
3. Web Server Configuration
   Web Server Host:                             sf-win
   Web Server Port Number:                      6500
   Weblogic SSL Port Number:                    6501
   Weblogic System Userid:                      system
   Weblogic System Password:                    spladmin
   Will this environment be used for development:  false
   Deploy appViewer module to the Web Server:   true
   Exploded directory (true) or archive format (false):  false
   Preload All Pages on startup:                false
   Maximum age of a cache entry for text (s):   28800
   Maximum age of a cache entry for images (s): 28800
   Interval (s) to check recompiling of JSPs:   43200
   To switch to basic Login Page enter: BASIC:  FORM
   Application Admin Userid :                    SYSUSER
   Application Admin Userid Password:            sysuser00
```

Menu Option	Name used in this Documentation	Usage	Customer Install Value
Web Server Host	WEB_WLHOST	Defaults to the name of the machine that the installation program is running on. The host name on which Web Application Sever resides.	
Web Server Port Number	WEB_WLPORT	Default: 6500 A unique port number within the system that is assigned to the HTTP port. This is the port number that is used as a part of the client URL request to connect to the host.	
Is this environment will be used for development	WEB_isDevelopment	Default: false If the value is "true", the web application may be used for application development, which will trigger certain generation processes. If the value is "false" (the default) the environment will be used as a runtime environment.	
Deploy appViewer module to the Web Server	WEB_isAppViewer	Default: true NOTE: If you set it to false, the module won't be deployed to the Web Server. However, the module will still exist and managed by upgrade processes.	
Exploded directory or archive format	WEB_isExpanded	Default: falseOnly change to true if installing on Tomcat.If the value is "true", the web application will be deployed in exploded directory format, If the value is "false" (the default), the web application will be deployed in ear file format.Note. WebLogic, WebSphere and Oracle Application Server require deployment in ear file format only.	

Menu Option	Name used in this Documentation	Usage	Customer Install Value
Preload All Pages on startup	WEB_preloadall	Default: false	
Maximum age of a cache entry for text (s)	WEB_maxAge	Default: 28800	
Maximum age of a cache entry for images (s)	WEB_maxAgeI	IDefault: 28800	
Interval (s) to check recompiling of JSPs	WEB_wlpageCheckSeconds	Default: 43200	
To switch to basic Login Page enter: BASIC	WEB_WLAUTHMETHOD	Default: FORM Specifies which authentication mode should be used. To switch off Oracle Utilities Login Page enter: BASIC	
Application Admin Userid	WEB_SPLUSER	Default: SYSUSER This is the default userid to login to the application through the browser.	
Application Admin Userid Password	WEB_SPLPASS	Default: sysuser00	

WebLogic Specific Parameters Worksheet

Business App Server Configuration

```
2. Business App Server Configuration
   Business Server Host:                sf-win
   JVM Child process starting Port Number:  6503
   Number of JVM Child processes:       2
   Weblogic System Userid:              system
   Weblogic System Password:            spladmin
```

Menu Option	Name used in this Documentation	Usage	Customer Install Value
Weblogic System Userid	BSN_WLSYSUSER	Default: system Userid to login to WebLogic console and to administer WebLogic. The WebLogic startup script uses this userid.	
Weblogic System Password	BSN_WLSYSPASS	Default: spladmin The system is installed with the default password for the "system" userid as "spladmin". On the configuration step of install process you can change this password to a different value. This should only be done if you have changed the password on an existing system following the Oracle WebLogic instructions. NOTE: For a new install keep the password spladmin	

Web App Server Configuration

```
3. Web Server Configuration
Web Server Host:                                 sf-win
Web Server Port Number:                          6500
Weblogic SSL Port Number:                        6501
Weblogic System Userid:                          system
Weblogic System Password:                        spladmin
Is this environment will be used for development: false
Deploy appViewer module to the Web Server:       true
Exploded directory (true) or archive format (false): false
Preload All Pages on startup:                    false
Maximum age of a cache entry for text (s):       28800
Maximum age of a cache entry for images (s):     28800
Interval (s) to check recompiling of JSPs:       43200
To switch to basic Login Page enter: BASIC:      FORM
Application Admin Userid :                        SYSUSER
Application Admin Userid Password:                sysuser00
```

Menu Option	Name used in this Documentation	Usage	Customer Install Value
Weblogic SSL Port Number	WEB_WLSSLPORT	Default: 6501 The port number assigned to WebLogic Secure Sockets connection. This is the port number that is used for Secure sockets connecting to the WebLogic server. The Secure Sockets implementation is disabled in the default configuration.	
Weblogic System Userid	WEB_WLSYSUSER	Default: system Userid to login to WebLogic console and to administer WebLogic. The WebLogic startup script uses this userid.	
Weblogic System Password	WEB_WLSYSPASS	Default: spladmin The system is installed with the default password for the "system" userid as "spladmin". On the configuration step of install process you can change this password to a different value. This should only be done if you have changed the password on an existing system following the Oracle WebLogic instructions. NOTE: For a new install keep the password spladmin	

WebSphere Specific Parameters Worksheet

Business App Server Configuration

```
2. Business App Server Configuration
   Business Server Host:                    sf-aix-02
   JVM Child process starting Port Number:  8303
   Number of JVM Child processes:           2
   Bootstrap port:                          2810
   WebSphere Server Name:                   server1
   WebSphere Application Name:              SPLService
   WebSphere Deployment userid:            wasadmin
   WebSphere Deployment password:          admin
```

Menu Option	Name used in this Documentation	Usage	Customer Install Value
Bootstrap port	BSN_WASBOOTSTRAPPORT	Default: 2810 BOOTSTRAP_ADDRESS. This port number allows the Web module (SPLWeb.ear file) to communicate with the EJB module (SPLService.ear).	
WebSphere Server Name	BSN_SVRNAME	Default: server1 Each Oracle Utilities Framework Application must be installed in a unique WebSphere server. Each WebSphere server has a default HTTP port which value will be stored in the variable WLPORT	
WebSphere Application Name	BSN_WASAPP	Default: SPLService WebSphere Application Name. It is used within the scripts that start, stop and deploy the environment to Websphere.	
WebSphere Deployment userid	BSN_WASUSER	Default: wasadmin WebSphere admin console userid. It is used within the scripts that start, stop and deploy the environment to Websphere.	
WebSphere Deployment password	BSN_WASPASS	WebSphere admin console password.	

Web App Server Configuration

```
3. Web Server Configuration
   Web Server Host:                                 sf-aix-02
   Web Server Port Number:                          9081
   WebSphere Server Name:                           server1
   WebSphere Application Name:                       SPLWeb
   WebSphere Deployment userid:                      wasadmin
   WebSphere Deployment password:                    admin
   Is this environment will be used for development: false
   Deploy appViewer module to the Web Server:        false
   Exploded directory (true) or archive format (false): false
   Preload All Pages on startup:                     false
   Maximum age of a cache entry for text (s):        28800
   Maximum age of a cache entry for images (s):      28800
   To switch to basic Login Page enter: BASIC:       FORM
   Application Admin Userid :                        SYSUSER
   Application Admin Userid Password:                sysuser00
```

Menu Option	Name used in this Documentation	Usage	Customer Install Value
WebSphere Server Name	WEB_SVRNAME	Default: server1 A unique server name within WebSphere installation where Oracle Utilities application will be installed. Each WebSphere server has a default HTTP port which value will be stored in the variable WLPORT.	
WebSphere Application Name	WEB_WASAPP	Default: SPLWeb WebSphere Application Name. It is used within the scripts that start, stop and deploy the environment to WebSphere.	
WebSphere Deployment userid	WEB_WASUSER	Default: wasadmin WebSphere admin console userid. It is used within the scripts that start, stop and deploy the environment to WebSphere.	
WebSphere Deployment password	WEB_WASPASS	WebSphere admin console password.	

Note: The Web Server Port Number is the WC_defaulthost port defined in your WebSphere installation.

Apache Tomcat Specific Parameters Worksheet

Web App Server Configuration

```
3. Web Server Configuration
   Web Server Host:                              SF-WIN-01
   Web Server Port Number:                       6500
   Tomcat shutdown port                          6501
   Is this environment will be used for development:  false
   Deploy appViewer module to the Web Server:    false
   Exploded directory (true) or archive format (false):  true
   Preload All Pages on startup:                 false
   Maximum age of a cache entry for text (s):    28800
   Maximum age of a cache entry for images (s):  28800
   To switch to basic Login Page enter: BASIC:   FORM
   Application Admin Userid :                     SYSUSER
   Application Admin Userid Password:            sysuser00
```

Menu Option	Name used in this Documentation	Usage	Customer Install Value
Tomcat shutdown port	WEB_TCATSHUTPORT	Tomcat shutdown port	

Oracle Application Server Specific Parameters Worksheet

Business App Server Configuration

```
2. Business App Server Configuration
   Business Server Host:                      sf-app-02
   JVM Child process starting Port Number:    28103
   Number of JVM Child processes:             2
   Oracle Application Server System Userid:   OC4JADMIN
   Oracle Application Server System Password: spladmin1
   Oracle Application Server Request Port:    28002
   OC4J instance RMI port:                    12402
   Oracle Application Server OC4J instance:   OC4J1
   Oracle Application Server Application Name: SPLService
```

Menu Option	Name used in this Documentation	Usage	Customer Install Value
Oracle Application Server System Userid	BSN_OASYSUSER	Default: oc4jadmin OAS admin console userid. It is used within the scripts that start, stop and deploy the environment to OAS.	
Oracle Application Server System Password	BSN_OASYSPASS	Default: spladmin1 OAS admin console password.	
Oracle Application Server Request Port	BSN_OASREQPORT	Default: <none> This port number is configurable within the OAS installation (see the OAS installation documentation for further information).	
OC4J instance RMI port	BSN_OASRMIPORT	Default: <none> This port number allows the Web module (SPLWeb.ear file) to communicate with the EJB module (SPLService.ear). As a default OAS assigns a range of port numbers (the actual port number gets assigned dynamically when the OC4J instance start up). You'll need to make this assignment static from OAS Console -> Server properties (see the Supported Platforms document).	
Oracle Application Server OC4J instance	BSN_OC4J_instance	Default: OC4J1 For multiple Oracle Utilities Framework Application installations this field must be unique.	
Oracle Application Server Application Name	BSN_OASAPP	Default: SPLService OAS Application Name. It is used within the scripts that start, stop and deploy the environment to OAS.	

Web App Server Configuration

```
3. Web Server Configuration
   Web Server Host:                                  sf-app-02
   Web Server Port Number:                           28000
   Oracle Application Server System Userid:          OC4JADMIN
   Oracle Application Server System Password:        spladmin1
   Oracle Application Server Request Port:           28002
   Oracle Application Server OC4J instance:          OC4J1
   Oracle Application Server Application Name:        SPLWeb
   Is this environment will be used for development:  false
   Deploy appViewer module to the Web Server:         false
   Exploded directory (true) or archive format (false): false
   Preload All Pages on startup:                      false
   Maximum age of a cache entry for text (s):         28800
   Maximum age of a cache entry for images (s):       28800
   To switch to basic Login Page enter: BASIC:        FORM
   Application Admin Userid :                          sysuser
   Application Admin Userid Password:                 sysuser00
```

Menu Option	Name used in this Documentation	Usage	Customer Install Value
Oracle Application Server System Userid	WEB_OASYSUSER	Default: oc4jadmin OAS admin console userid. It is used within the scripts that start, stop and deploy the environment to OAS.	
Oracle Application Server System Password	WEB_OASYSPASS	Default: spladmin1 OAS admin console password.	
Oracle Application Server Request Port	WEB_OASREQPORT	Default: <none> This port number is configurable within the OAS installation (see the OAS installation documentation for further information).	
Oracle Application Server OC4J instance	WEB_OC4J_instance	Default: OC4J1 For multiple Oracle Utilities Framework Application installations this field must be unique.	
Oracle Application Server Application Name	WEB_OASAPP	Default: SPLWeb OAS Application Name. It is used within the scripts that start, stop and deploy the environment to OAS.	

Oracle Database Parameters Worksheet

```
4. Database Configuration
   USERID of the User of the Database:        CISUSER
   Password of the User of the Database:      CISUSER
   Oracle Database Name:                      QA220QA7
   Oracle Client Character Set NLS_LANG:      AMERICAN_AMERICA.UTF8
   Host name of database server:              sf-lin
   Port name for database connection:         1521
```

Menu Option	Name used in this Documentation	Usage	Customer Install Value
USERID of the User of the Database	DBUSER		
Password of the User of the Database	DBPASS		
Oracle Database Name	ORACLE_SID	ORACLE DATABASE NAME (ORACLE_SID)	
Oracle Client Character Set NLS_LANG	NLS_LANG	The Oracle Database Character Set Select the Language and Territory that are in use in your country. UTF8 is a default character set ("Language_Territory.UTF8").	
Host Name of database server	DBSERVER	Host name of the server where database resides.	
Port name for database connection	DBPORT	Port name on the database server used for connection to the database	

DB2 Database Parameters Worksheet

```
4. Database Configuration
   Owner of Database Schema:                AV221QA6
   USERID of the User of the Database:      AV221QA6
   Password of the User of the Database:    AV221QA6
   DB2 Location Name:                       LOCDB8A
   DB2 Collection name:                     QA221QA6
   DB2 Codepage:                            437
   Host name of database server:            192.168.88.72
   Port name for database connection:       470
```

Menu Option	Name used in this Documentation	Usage	Customer Install Value
Owner of Database Schema	OWNERUSER		
USERID of the User of the Database	DBUSER		
Password of the User of the Database	DBPASS		
DB2 Location Name	DB2LOCL		
DB2 Collection name	DB2COLL		
DB2 Codepage	DB2CODEPAGE		
Host name of database server	DBSERVER	Host name of the server where database resides.	
Port name for database connection	DBPORT	Port name on the database server used for connection to the database.	

MS SQL Database Parameters Worksheet

```
4. Database Configuration
   USERID of the User of the Database:      QA2202QJ
   Password of the User of the Database:    QA2202QJ
   MS SQL Database Name:                    GG2202QJ
   MS SQL Collation name:                   SQL_Latin1_General_CP1_CS_AS
   Host name of database server:            sf-win-032
   Port name for database connection:       1433
```

Menu Option	Name used in this Documentation	Usage	Customer Install Value
USERID of the User of the Database	DBUSER		
Password of the User of the Database	DBPASS		
MS SQL Database Name	SQLDB		
MS SQL Collation name	COLLATE		
Host name of database server	DBSERVER	Host name of the server where database resides.	
Port name for database connection	DBPORT	Port name on the database server used for connection to the database	

MPL & Batch Environment Configuration Options Worksheet

```
5. Environment Configuration
   MPL Admin Port:                    6502
   MPL Automatic startup:             N
   XAI Startup "wait" time seconds:   90
   JVM Child Memory Allocation:       512
   Batch Server Enabled:              false
   Batch Threads Number:              5
   Batch Scheduler Daemon:            false
   Release Cobol Thread Memory:       false
```

Menu Option	Name used in this Documentation	Usage	Customer Install Value
MPL listener Port	MPLADMINPORT	Default: 6502	
MPL Automatic startup	MPLSTART	Default: N Automatically start the MPL Listener whenever environment starts.	
XAI Startup "wait" time seconds	XAISTARTWAITTIME	Default: 90 The number of seconds to wait before the XAI server is started.	
JVM Child Memory Allocation	JVMMEMORYARG	Default: 512 The initial and maximum memory heap size allocated to each of the batch java processes.	
Batch Server Enabled	BATCHENABLED	Default: false When starting a web application server JVM, this property can be set to TRUE to allow the on-line application server to also act as a batch worker in the grid.	
Batch Threads Number	BATCHTHREADS	Default: 5 The maximum number of batch processing threads to be executed within a worker JVM when no explicit Distributed Thread Pool is specified. The "DEFAULT" distributed thread pool is used by the batch-scheduling daemon when it initiates processing on batch jobs (typically added via the online system) where no thread pool is specified.	
Batch Scheduler Daemon	BATCHDAEMON	Default: false In a distributed batch environment, this property can be set to TRUE to allow a worker JVM to host the batch-scheduling daemon. The daemon accepts on-line batch submission requests and automatically submits the work for them.	

Menu Option	Name used in this Documentation	Usage	Customer Install Value
Release Cobol Thread Memory	REL_CBL_THREAD_ MEM	Default: false Allow for child JVMs to be optionally configured to release thread-bound memory when each thread is returned to its thread pool. This will increase the number of memory allocations and memory free calls performed by the Microfocus runtime but will also lower the amount of C-heap memory consumed by child JVMs	

Chapter 4

Software Requirements

This chapter describes the software that needs to be installed for each of the supported operating system and application server combinations. The sections include:

- **AIX Application Server**

- **HP-UX 11.23 Itanium or HP-UX 11.31 Itanium Application Server**

- **Oracle Enterprise Linux or Red Hat Linux Application Server**

- **Solaris 10 Application Server**

- **Windows Application Server**

AIX Application Server

This section describes the software requirements for operating the application using the AIX application server.

Supported Application Servers

Operating System	Chipsets	Application Server			
		Oracle WebLogic 10 MP1	Oracle Application Server 10.1.3.1	IBM WebSphere Application Server 6.1.0.21	Tomcat 6.0.13
AIX 5.3 (64-bit) TL6 AIX 6.1 (64-bit)	Power 64-bit	32-bit version	32 bit version	32-bit version	N/A
z/OS 1.9 (64-bit)		N/A	N/A	32-bit version **web server only**	N/A

Web/Application Server Tier

AIX 5.3 TL 6 or AIX 6.1 Operating System Running on Power5 and Power6 Architecture

UNIX Administrator Userid

The following user groups and accounts have to be created to install and administer the application:

Description	Default Value	Customer Defined Value
ETM Administrator UserID	cissys	
ETM User Group	cisusr	

Note: It is recommended that you change the default values for security reasons.

Throughout this document the administrator user id is often referred to as the "cissys" user id. You should substitute that with the customer defined user id when not using the default value. After the initial install, the software should always be managed using that user id.

By default, the cissys userid is the only one given access to the files installed.

1. Create a group called cisusr (user group)

2. Create a user called cissys. Primary group cisusr. Set the primary shell for the cissys user to Korn Shell.

The shell scripts use the ">" to overwrite shell functionality. Your operating system may be configured to not allow this functionality by default in the users shell.

To avoid file access permission problems when executing scripts, consider placing the following command into cissys profile script:

```
set +o noclobber
```

IBM XL C/C++ Compiler 9.0

Micro Focus COBOL requires that this be installed as a prerequisite to compiling any COBOL code.

If you are going to compile your own COBOL objects then this C compiler should be installed. This C compiler is required for COBOL Compiles only. It needs to be installed on those machines that have both Micro Focus Server Express and will have the COBOL compiles performed on them.

This product is available from IBM.

Oracle 11.1.0.6 Client

The Java JDBC drivers must be installed as part of the client install.

The Oracle Client is only required if you are using Oracle as the database server.

Use the following command to ensure that the cissys userid is able to communicate with the Oracle database:

```
tnsping $ORACLE_SID
```

The Oracle 11.1.0.6 client is required regardless of the version of the database server. Both Oracle 11 and Oracle 10 database servers require the use of an Oracle 11 client.

IBM DB2 Connect Enterprise 9.1.06

DB2 Connect is required if you are using DB2 on z/OS as a database server.

DB2 Connect requires a local DB2 Connect instance. That instance holds information that is required to connect to your DB2 database. The cissys login script needs to be modified to run the DB2 environment initialization script for that instance

For example, if you already have a DB2 instance called "mydb2inst". DB2 Connect install will generate a script that needs to be run to initialize the environment for that instance. To set up the environment, put the following command into cissys' login script.

```
~mydb2inst/sqllib/db2profile
```

To confirm that the DB2 Connect has been configured type the following command once you have logged back in as cissys:

```
db2level
```

If DB2 Connect has been installed and the db2profile script has been run the output from this command will be the DB2 Connect version information.

Micro Focus Server Express 5.0 with fixpack 50.02_5

Server Express is only required for environment where COBOL code will be compiled.

See the "Micro Focus" section in the Quick Install Guide for more information on the installation and licensing of this product. Also note that the fixpack is a separate installation.

After installing Server Express, make sure that cissys userid shell has the COBDIR environment variable set to point to the base location where Server Express has been installed.

Micro Focus Server 5.0 with fixpack 50.02_5

Micro Focus Server is required on the tier that will be hosting the application server where Oracle Enterprise Taxation Management application code will be deployed.

Micro Focus Server must be installed in the following directory:

/opt/SPLcobAS50

See the "Micro Focus" section in the Quick Install Guide for more information on the installation and licensing of this product. Also note that the fixpack is a separate installation.

Perl 5.8.8

Install Perl 5.8.8 prior to executing any Oracle Enterprise Taxation Management installation scripts.

Execute the following command to ensure that the correct version of Perl is in the cissys user profile PATH.

```
perl -V
```

If Perl is installed and in the path the above command should return Perl diagnostic and version information

Installation scripts were tested with ActivePerl Build 820. It can be downloaded from the following page: http://downloads.activestate.com/ActivePerl/

IBM Java Software Development Kit version 5.0 Service Release SR8a4 32-bit

Installation of Java as a prerequisite is only needed if you are using Oracle WebLogic as a Web application server. If you use OAS or WebSphere the Java runtime engine from the Web application server is used.

At time of release, AIX Java packages could be obtained from:

http://www.ibm.com/developerworks/java/jdk/aix/service.html

The web server relies on the 32-bit Java platform to function. The main pre-requisite requirement for the web server is the version of java mentioned above.

For the Administrator userid (cissys), ensure that the environment variable JAVA_HOME is setup, and that "java" can be found in cissys' PATH variable.

Hibernate 3.2.5

Hibernate must be installed prior to the installation of Oracle Enterprise Taxation Management.

Please download the file hibernate-3.2.5.ga.zip from the following link:

http://prdownloads.sourceforge.net/hibernate/

or from the following link:

http://sourceforge.net/project/showfiles.php?group_id=40712&package_id=127784

It is very important that you download the exact version, as the product has only been certified with this exact release.

You will need to create a permanent directory to place one of the files from hibernate-3.2.5.ga.zip. (e.g. /opt/hibernate3.2.5).

For the Administrator userid (cissys), ensure that the environment variable HIBERNATE_JAR_DIR is setup and points to the above directory.

Extract the file hibernate3.jar from hibernate-3.2.5.ga.zip to the location pointed to by $HIBERNATE_JAR_DIR.

Ensure that the file $HIBERNATE_JAR_DIR/hibernate3.jar exists.

C3PO 0.9.1.2

C3PO is an easy-to-use library for augmenting traditional JDBC drivers with JNDI-bindable DataSources, including DataSources that implement Connection and Statement Pooling, as described by the jdbc3 spec and jdbc2 std extension. C3PO must be installed before installing Oracle Enterprise Taxation Management.

Please download c3p0-0.9.1.2.bin.zip from the following link:

http://sourceforge.net/project/showfiles.php?group_id=25357&package_id=88527

It is very important that you download the exact version, as the product has only been certified with this exact release.

You will need to create a permanent directory to place one of the files from c3p0-0.9.1.2.bin.zip. (e.g. /opt/c3p0-0.9.1.2).

For the Administrator userid (cissys), ensure that the environment variable C3P0_JAR_DIR is setup and points to the above directory.

Extract the file c3p0-0.9.1.2.jar from c3p0-0.9.1.2.bin.zip to the location pointed to by $C3P0_JAR_DIR.

Ensure that the file $C3P0_JAR_DIR/c3p0-0.9.1.2.jar exists.

Oracle Application Server 10.1.3.1.0 32-bit

Oracle Application Server 10.1.3.1.0 has been certified with AIX 5.3 TL6.

There is a known issue with it's ability to run ETM on AIX 6.1.

This issue is being tracked by bug number 8311141.

Oracle Enterprise Taxation Management can be installed on the Java, Standard or Enterprise editions of OAS. OAS can be downloaded from http://www.oracle.com/appserver/appserver_family.html.

This application server will run the Oracle Utilities/Tax OC4J applications as 32-bit applications. Oracle Application Server (OAS) relies on the JDK that is embedded within the OAS installation (the JDK is located in $OAS_HOME/jdk).

Note the following points for configuring OAS prior to doing the OAS install:

• Oracle Application Server must be installed as cissys user

• Oracle Application Server must be installed prior to Oracle Utilities Framework is installed.

A single Oracle Application Server OC4J Instance represents a single Oracle Enterprise Taxation Management Environment. You can install multiple environments on a single Oracle Application Server Installation by creating additional OAS OC4J Instances.

Use the following steps to install OAS:

1. Obtain OAS 10.1.3.1 from edelivery.oracle.com or the public download site:

http://www.oracle.com/technology/software/htdocs/devlic.html?url=/technology/software/products/ias/htdocs/101310.html

2. Review the Software and Hardware requirements from the Installation documentation for your platform to ensure you have the necessary components.

3. Read all of the OAS documentation.

4. Extract the installer to a temporary directory and execute the runInstaller.sh.

5. You will be presented with the installation screen. Enter the desired installation directory and select 'Advanced Install' at the bottom.

6. In the "Select Installation Type" window, choose ' J2EE Server and Web Server' and click next.

7. In the 'Specify Port Configuration Options' select Automatic or if you want to supply a saticports.ini file you can specify one here.

8. In the 'Administration Settings' window, specify the AS Instance Name you will use and the AS Administrator Password. Check the box that says 'Configure this as an Administration

OC4J Instance'. You can accept the OC4J Instance Name that is created by the installer (home) or you can specify your own. Click Next.

9. On the 'Cluster Topology Configuration' uncheck the box and click Next.

10. On the Summary screen review your configuration and click Install.

11. For Unix & Linux systems you will be prompted to run the 'root.sh' script at the end of the install.

> After installing OAS, you will need to upgrade the supplied OAS 32-bit JDK to the IBM AIX SR5 JDK. This is necessary to fix java class loading issues that come from the default JDK install version.

> Read and perform the actions in the Metalink Document ID : 396096.1

> (How to update the default JDK installed in Application Server 10.1.3)

Configure the following items for the shell of the Administrator userid:

• For the userid cissys, ensure that its login/environment initialization script sets the environment variable OAS_HOME to point to the Oracle Home of your Oracle Application Server install. This variable must be set prior to attempting the installation of the Oracle Utilities Framework.

> For example, if you installed your software into /opt/oas you would need to put something similar to the following into your login script:

```
OAS_HOME=/opt/oas; export OAS_HOME
```

• For the userid cissys, ensure that its login/environment initialization script sets the environment variable ORACLE_HOME points to the Oracle Home of your Oracle client installation.

Oracle Application Server Admin Console - Initial Set Up

The following activities must be completed prior to installing Oracle Enterprise Taxation Management.

> Note: Make sure to apply your changes, and when prompted restart your OC4J Instance.

• Use Oracle's Enterprise Manager Application Server Console to create a new OC4J Instance and New Group Name. Select **Application Server, Create OC4J Instance**.

> Note: Make sure of the following: check the radio button "Add to a new group with name", enter a Group Name in "New Group Name" field, and check the option "Start this OC4J instance after creation".

• Set static RMI Port for your OC4J Instance. Select, **Administration, Server Properties**

> Note: Ensure a different OC4J Instance is not all ready using the RMI Port you are setting. Also, set a static RMI port for the OC4J Instance of home, so there is not a port conflict when Oracle Application Server is restarted.

• Set Command Line Options for the OC4J Instance created. Select **Administration, Server Properties** under Command Line Options.

Enter the following under the section: **Start-parameters: Java Options**

Leave the following defaults:

```
-Djava.security.policy=$ORACLE_HOME/j2ee/<OC4J_Instance>/config/
java2.policy
-Djava.awt.headless=true
-Dhttp.webdir.enable=false
```

Enter the following entries:

```
-Dfile.encoding=ISO8859_1
-server -Xrs -Xms1024M -Xmx1024M
```

Enter the following under the section: **Start-parameters: OC4J Options**

```
-properties
-userThreads
```

> Note: These values may be defaulted when the OC4J Instance is created.

Enter the following under the section: **Configuring Stop-parameters: Java Options**

Leave the following defaults:

```
-Djava.security.policy=$ORACLE_HOME/j2ee/<OC4J_Instance>/config/
java2.policy
-Djava.awt.headless=true
-Dhttp.webdir.enable=false
```

Apply the changes and Restart the OC4J instance. The application installation utility requires that this OC4J instance be up.

> Note: Once the above steps have been completed and the other Third Party Software has been installed and configured, you are now able to install the Oracle Utilities Framework. Prior to deployment of the application: You must complete the Post Installation Steps for Oracle Application Server.

IBM WebSphere Application Server 6.1.0.21 32-bit

This software must be purchased from IBM. It must be installed and configured prior to the Oracle Enterprise Taxation Management installation.

A single WebSphere server represents a single Oracle Enterprise Taxation Management Environment. You can install multiple environments on a single WebSphere Installation by creating additional WebSphere Servers. (Please see sample WebSphere server creation script below).

Please install the 6.1.0.21 patch with its accompanying Java Runtime update. There are problems with class loading that are fixed by this patch.

Please satisfy the following requirements on WebSphere installation prior to deploying Oracle Enterprise Taxation Management:

• Ensure that the cissys userid ($SPLUSER) or WebSphere deployment userid ($WASUSER) have write permissions to log files under the $WAS_HOME/profiles/<yourprofile>/logs and $WAS_HOME/profiles/<yourprofile>/logs/<yourserver> directory.

• WAS_HOME environment variable should be set pointing to the WebSphere installation directory.

For example, if you installed WebSphere into /opt/webSphere then put something similar to the following into your login script:

```
WAS_HOME=/opt/webSphere; export WAS_HOME
```

• Due to the size of the Oracle Enterprise Taxation Management web application and to ensure a successful deployment, increase the following WebSphere defaults.

Modify the following file:

$WAS_HOME/profiles/<yourprofile>/<appServer1/properties/soap.client.props

Change the following Timeout parameter to an unlimited value:

```
 com.ibm.SOAP.requestTimeout=0
```

- Increase java heap size for wsadmin tool, by modifying the following part of the line in $WAS_HOME/bin/wsadmin.sh script:

  From

  ```
  PERF_JVM_OPTIONS="-Xms256m -Xmx256m"
  ```

  To

  ```
  PERF_JVM_OPTIONS="-Xms380m -Xmx380m"
  ```

- Increase max data size in your shell before starting WebSphere:

  ```
  export IBM_JVM_LDR_CNTRL_NEW_VALUE=MAXDATA=0XB0000000@DSA
  export LDR_CNTRL=MAXDATA=0XB0000000@DSA
  ```

Creation of Additional servers in WebSphere - sample script

Below are sample scripts that demonstrate a way of creating additional servers using the wsadmin.sh tool. There are several other ways to accomplish this task.

- Initialize a wsadmin.sh session:

  <$WAS_HOME>/bin/wsadmin.sh -host localhost -port <SoapConnectorPort> -conntype SOAP -username <webSphereUserName> -password <webSphereUserPassword>

  Note: Substitute $WAS_HOME, webSphereUserName, SoapConnectorPort, webSphereUserPassword, with values that are appropriate for your installation.eg. /spl/IBM/WebSphere61/AppServer/bin/wsadmin.sh -host localhost -port 8889 -conntype SOAP -username websphere -password webSphere123

- Create the server instance

  wsadmin> $AdminTask createApplicationServer <nodeName> {-name <serverName>}

  Note: Substitue nodeName and serverName with appropiate values.eg. wsadmin> $AdminTask createApplicationServer sf-aix1Node02 { -name server3 }

- Save your changes with the wsadmin tool

  wsadmin> $AdminConfig save

- Exit the wasadmin tool

  wsadmin> exit

Configuration in the WebSphere console

Note: When working within the WebSphere Console make sure to apply and save your changes to the Master Configuration when appropriate.

General Security Configuration: Please use the WebSphere Console to set security. Select **Security, Secure administration, applications, and infrastructure**

- Under the section: Application security

  - Check Enable application security

- Under the section: User Account repository

  - Select Local operating system from the dropdown

  - Click the Set as current button

- Click the Configure button

- On the Select **Configuration Page, Secure administration, applications, and infrastructure, Local operating system**

- Under the section: General Properties

  - Enter the Primary administrative user name.

- Under the section: Server user identity

  - Select Automatically generated server identity

Server Port Configuration:

- Obtain server Ports information for the Oracle Framework Installation.

  - Select **Servers, Application servers, < server_Name >, Ports**.

  - Once you have navigated to this page you will need to make a note of the BOOTSTRAP_ADDRESS and the WC_defaulthost Port numbers.

    Note: Replace server_Name with the server name you have created in the previous section.

- Setup a new virtual host for your server.

  - Select **Environment, Virtual Hosts, default_host, Host Aliases, New**

  - Under the section: General Properties

    Host Name: *

    Port: WC_defaulthost Port Number

Server Configuration:

- Update the Parallel start option and Run development mode options.

  - Select **Server, Application servers, < server_Name >**

  - Under the section: General Properties

    - Check Run in development mode

  - Under the section: General Properties

    - Uncheck Parallel start

- Configure the Java Virtual Machine Options.

  - Select **Servers, Application servers, < server_Name >, Java and Process Management, Process Definition , Java Virtual Machine**

    - Under the section: General Properties: Classpath (DB2 Installations only), Enter the following:

    ```
    <$DB2DIR>/java/db2jcc.jar:<$DB2DIR>/java/
    db2jcc_license_cisuz.jar
    ```

    Note: Substitute $DB2DIR with appropriate values for you installation. e.g.
    /opt/IBMdb2/db291/sqllib/java/db2jcc.jar:
    /opt/IBMdb2/db291/sqllib/java/db2jcc_license_cisuz.jar

    - Under the section: **General Properties, Initial Heap Size and Maximum Heap Size**, Enter the following:

      Initial Heap Size: 1024

      Maximum Heap Size: 1024

- Configure the Java Virtual Machine Custom Properties.

- Select **Application servers, < server_Name > , Java and Process Management, Process Definition, Java Virtual Machine, Custom Properties**

  Add the following entries:

  Name: com.ibm.websphere.security.util.CredentialCacheEnabled

  Value: false

  Name: com.ibm.websphere.security.util.authCacheEnabled

  Value: BasicAuthDisabled

  Name: javax.xml.transform.TransformerFactory

  Value:org.apache.xalan.processor.TransformerFactoryImpl

- It is advised to increase the following timeout parameters for a successful deployment. These settings will vary from site to site, you will to make the adjustments accordingly. The following section outlines where some of those time out settings can be found.

  Note: The default values for the timeout settings described below were utilized successfully during the QA Cycle.

- Timeout setting for the Web Container.

  Select **Severs, Application servers, < server_Name > , Container Settings, Session management**

  Under the Section: Session timeout

- Transaction lifetime timeout and client inactivity timeout.

  Select **Servers, Application servers, <server_Name>, Container Service, Transaction Service**

  Under the Section: Total transaction lifetime timeout

  Under the Section: Client inactivity timeout

- ActivitySession Service timeout setting.

  Select **Servers, Application servers, < server_Name > , Business Process Services, ActivitySession service**

  Under the Section: Default timeout

- Set Maximum send and Receive size in Work area server.

  Select **Servers, Application servers, < server_Name >, Business Process Services, Work area service**

  Under the Section: Maximum send size and Maximum receive size

  Enter the following:

  0 (no limit)

  Note: Once the above steps have been completed and the other Third Party Software has been installed and configured, you are now able to install the Oracle Utilities Framework. Prior to deployment of the application: You must complete the Post Installation Steps for WebSphere.

Oracle WebLogic Server 10.0 MP1 - 32-bit

The following products are supported: Oracle WebLogic Server Standard Edition and Oracle WebLogic Server Enterprise Edition. Oracle WebLogic software can be downloaded from the Oracle web site. This application server will run as a 32-bit application.

• Download and install 32-bit Java (as documented above) before installing WebLogic.

• Download and install WebLogic Server 10.0 MP1.

• After installing WebLogic, ensure that the BEADIR environment variable is set to point to the WebLogic installation directory for the cissys userid

For example, if you installed WebLogic into /opt/bea you would need to put something similar to the following into cissys login script:

BEADIR=/opt/bea; export BEADIR

HP-UX 11.23 Itanium or HP-UX 11.31 Itanium Application Server

This section describes the software requirements for operating the application using the HP-UX 11.23 Itanium or HP-UX 11.31 Itanium application serve.

Supported Application Servers

Operating System	Chipsets	Application Server			
		Oracle WebLogic 10 MP1	Oracle Application Server 10.1.3.1	IBM WebSphere Application Server 6.1.0.21	Tomcat 6.0.13
HP-UX 11.23 (64-bit)	Itanium	64-bit version	64 bit version	N/A	N/A
HP-UX 11.31 (64-bit)	Itanium	64-bit version	64 bit version	N/A	N/A

Web/Application Server Tier

HP-UX 11.23 Itanium or HP-UX 11.31 Itanium Operating System running on Itanium2 architecture

UNIX Administrator Userid

The following user groups and accounts have to be created to install and administer the application:

Description	Default Value	Customer Defined Value
ETM Administrator UserID	cissys	
ETM User Group	cisusr	

Note: It is recommended that you change the default values for security reasons.

Throughout this document the administrator user id is often referred to as the "cissys" user id. You should substitute that with the customer defined user id when not using the default value. After the initial install, the software should always be managed using that user id.

By default, the cissys userid is the only one given access to the files installed.

1. Create a group called cisusr (user group)

2. Create a user called cissys. Primary group cisusr. Set the primary shell for the cissys user to Korn Shell.

The shell scripts use the ">" to overwrite shell functionality. Your operating system may be configured to not allow this functionality by default in the users shell.

To avoid file access permission problems when executing scripts, consider placing the following command into cissys profile script:

```
set +o noclobber
```

HP C/ANSI C Developer's Bundle

Micro Focus COBOL requires that this be installed as a prerequisite to compiling any COBOL code.

If you are going to compile your own COBOL objects then this C compiler should be installed. This C compiler is required for COBOL Compiles only. It needs to be installed on those machines that have both Micro Focus Server Express and will have the COBOL compiles performed on them.

To order this package from HP use product number B3901BA.

Oracle 11.1.0.6 Client

The Java JDBC drivers must be installed as part of the client install.

The Oracle Client is only required if you are using Oracle as the database server.

Ensure that the Administrators userid (cissys) has been setup to be able to communicate with the Oracle database. Use the command

```
tnsping $ORACLE_SID
```

The Oracle 11.1.0.6 client is required regardless of the version of the database server. Both Oracle 11 and Oracle 10 database servers require the use of an Oracle 11 client.

Micro Focus Server Express 5.0 with fixpack 50.02_4

Server Express is only required for environments where COBOL code will be compiled.

See the "Micro Focus" section in the Quick Install Guide for more information on the installation and licensing of this product. Also note that the wrappack is a separate installation.

After installing Server Express, make sure that cissys user shell has the COBDIR environment variable set to point to the base location where Server Express has been installed.

Micro Focus Server 5.0 WrapPack 4 with fixpack 50.03_20

Micro Focus Server is required on the tier that will be hosting the application server where Oracle Enterprise Taxation Management application code will be deployed.

Micro Focus Server MUST be installed in the following directory /opt/SPLcobAS50

See the "Micro Focus" section in the Quick Install Guide for more information on the installation and licensing of this product. Also note that the wrappack is a separate installation.

Perl 5.8.8

Install Perl 5.8.8 prior to executing any Oracle Enterprise Taxation Management installation scripts.

Execute the following command to ensure that the correct version of Perl is in the cissys user profile PATH.

```
perl -V
```

If Perl is installed and in the path the above command should return Perl diagnostic and version information

Installation scripts were tested with ActivePerl Build 820. It can be downloaded from the following page: http://downloads.activestate.com/ActivePerl/

HP Java Development Kit version 1.5.0.14

The web server relies on the 64-bit Java platform to function. The main pre-requisite requirement for the web server is the version of java mentioned above.

For the userid cissys, ensure that the environment variable JAVA_HOME is setup, and that "java" can be found in cissys' PATH variable.

Hibernate 3.2.5

Hibernate must be installed prior to the installation of Oracle Enterprise Taxation Management.

Please download the file hibernate-3.2.5.ga.zip from the following link:

http://prdownloads.sourceforge.net/hibernate/

or from the following link:

http://sourceforge.net/project/showfiles.php?group_id=40712&package_id=127784

It is very important that you download the exact version, as the product has only been certified with this exact release.

You will need to create a permanent directory to place one of the files from hibernate-3.2.5.ga.zip. (e.g. /opt/hibernate3.2.5).

For the Administrator userid (cissys), ensure that the environment variable HIBERNATE_JAR_DIR is setup and points to the above directory.

Extract the file hibernate3.jar from hibernate-3.2.5.ga.zip to the location pointed to by $HIBERNATE_JAR_DIR.

Ensure that the file $HIBERNATE_JAR_DIR/hibernate3.jar exists.

C3PO 0.9.1.2

C3PO is an easy-to-use library for augmenting traditional JDBC drivers with JNDI-bindable DataSources, including DataSources that implement Connection and Statement Pooling, as described by the jdbc3 spec and jdbc2 std extension. C3PO must be installed before installing Oracle Enterprise Taxation Management.

Please download c3p0-0.9.1.2.bin.zip from the following link:

http://sourceforge.net/project/showfiles.php?group_id=25357&package_id=88527

It is very important that you download the exact version, as the product has only been certified with this exact release.

You will need to create a permanent directory to place one of the files from c3p0-0.9.1.2.bin.zip. (e.g. /opt/c3p0-0.9.1.2).

For the Administrator userid (cissys), ensure that the environment variable C3P0_JAR_DIR is setup and points to the above directory.

Extract the file c3p0-0.9.1.2.jar from c3p0-0.9.1.2.bin.zip to the location pointed to by $C3P0_JAR_DIR.

Ensure that the file $C3P0_JAR_DIR/c3p0-0.9.1.2.jar exists

Oracle Application Server 10.1.3.1.0 64-bit

Oracle Enterprise Taxation Management can be installed on the Java, Standard or Enterprise editions of OAS. OAS can be downloaded from http://www.oracle.com/appserver/appserver_family.html.

This application server will run the Oracle Utilities/Tax OC4J applications as 64-bit applications. Oracle Application Server (OAS) relies on the JDK that is embedded within the OAS installation (the JDK is located in $OAS_HOME/jdk).

Note the following points for configuring OAS prior to doing the OAS install:

• Oracle Application Server must be installed as cissys user.

• Oracle Application Server must be installed prior to Oracle Utilities Application Framework is installed.

A single Oracle Application Server OC4J Instance represents a single Oracle Enterprise Taxation Management Environment. You can install multiple environments on a single Oracle Application Server Installation by creating additional OAS OC4J Instances.

Use the following steps to install OAS:

1. Obtain OAS 10.1.3.1 from edelivery.oracle.com or the public download site:

   http://www.oracle.com/technology/software/htdocs/devlic.html?url=/technology/software/products/ias/htdocs/101310.html

2. Review the Software and Hardware requirements from the Installation documentation for your platform to ensure you have the necessary components.

3. Read all of the OAS documentation.

4. Extract the installer to a temporary directory and execute the runInstaller.sh.

5. You will be presented with the installation screen. Enter the desired installation directory and select 'Advanced Install' at the bottom.

6. In the "Select Installation Type" window, choose ' J2EE Server and Web Server' and click next.

7. In the 'Specify Port Configuration Options' select Automatic or if you want to supply a saticports.ini file you can specify one here.

8. In the 'Administration Settings' window, specify the AS Instance Name you will use and the AS Administrator Password. Check the box that says 'Configure this as an Administration OC4J Instance'. You can accept the OC4J Instance Name that is created by the installer (home) or you can specify your own. Click Next.

9. On the 'Cluster Topology Configuration' uncheck the box and click Next.

10. On the Summary screen review your configuration and click Install.

11. For Unix & Linux systems you will be prompted to run the 'root.sh' script at the end of the install.

Configure the following items for the shell of the Administrator userid:

• For the userid cissys, ensure that its login/environment initialization script sets the environment variable OAS_HOME to point to the Oracle Home of your Oracle Application Server install. This variable must be set prior to attempting the installation of the Oracle Utilities Framework.

   For example, if you installed your software into /opt/oas you would need to put something similar to the following into your login script:

   ```
   OAS_HOME=/opt/oas; export OAS_HOME
   ```

• For the userid cissys, ensure that its login/environment initialization script sets the environment variable ORACLE_HOME points to the Oracle Home of your Oracle client installation.

Oracle Application Server Admin Console - Initial Set Up

The following activities must be completed prior to installing Oracle Enterprise Taxation Management.

> Note: Make sure to apply your changes, and when prompted restart your OC4J Instance.

• Use Oracle's Enterprise Manager Application Server Console to create a new OC4J Instance and New Group Name.Select **Application Server, Create OC4J Instance**.

Note: Make sure of the following: select **Add to a new group with name**, enter a Group Name in **New Group Name** field, and select the option **Start this OC4J instance after creation**.

- Set static RMI Port for your OC4J Instance. Select **Administration, Server Properties**

     Note: Ensure a different OC4J Instance is not all ready using the RMI Port you are setting. Also, set a static RMI port for the OC4J Instance of home, so there is not a port conflict when Oracle Application Server is restarted.

- Set Command Line Options for the OC4J Instance created. Select **Administration, Server Properties** under **Command Line Options**.

Enter the following under the section: **Start-parameters: Java Options**

Leave the following defaults:

     -Djava.security.policy=$ORACLE_HOME/j2ee/<OC4J_Instance>/config/java2.policy

     -Djava.awt.headless=true

     -Dhttp.webdir.enable=false

Enter the following entries:

     -Dfile.encoding=ISO8859_1

     -server -Xrs -Xms1024M -Xmx1024M -XX:MaxPermSize=300m

     -d64

 Enter the following under the section: **Start-parameters: OC4J Options**

     -properties

     -userThreads

          Note: These values may be defaulted when the OC4J Instance is created.

Enter the following under the section: **Configuring Stop-parameters: Java Options**

Leave the following defaults:

     -Djava.security.policy=$ORACLE_HOME/j2ee/<OC4J_Instance>/config/java2.policy

     -Djava.awt.headless=true

     -Dhttp.webdir.enable=false

- Apply the changes and Restart the OC4J instance. The application installation utility requires that this OC4J instance be up.

     Note: Once the above steps have been completed and the other Third Party Software has been installed and configured, you are now able to install the Oracle Utilities Framework. Prior to deployment of the application: You must complete the Post Installation Steps for Oracle Application Server.

Oracle WebLogic Server 10.0 MP1 - 64-bit

The following products are supported: Oracle WebLogic Server Standard Edition and Oracle WebLogic Server Enterprise Edition. Oracle WebLogic software can be downloaded from the Oracle web site. This application server will run as a 64-bit application.

- Download and install 64-bit Java (as documented above) before installing WebLogic.

- Download and install WebLogic Server 10.0 MP1.

- After installing WebLogic, ensure that the BEADIR environment variable is set to point to the WebLogic installation directory for the cissys userid

For example, if you installed WebLogic into /opt/bea you would need to put something similar to the following into cissys login script:

BEADIR=/opt/bea; export BEADIR

Oracle Enterprise Linux or Red Hat Linux Application Server

This section describes the software requirements for operating the application using the Oracle Enterprise Linux or Red Hat Linux application server.

Supported Application Servers

Operating System	Chipsets	Application Server			
		Oracle WebLogic 10 MP1	Oracle Application Server 10.1.3.1	IBM WebSphere Application Server 6.1.0.21	Tomcat 6.0.13
Oracle Enterprise Linux 5 (64-bit) Red Hat Enterprise Linux 5 (64-bit)	AMD64 EMT64T	32-bit version	32 bit version	N/A	N/A

Web/Application Server Tier

Oracle Enterprise Linux 5.0 or Red Hat Enterprise Linux 5.0 Operating System running on AMD64 or EM64T 64-bit architecture

UNIX Administrator Userid

The following user groups and accounts have to be created to install and administer the application:

Description	Default Value	Customer Defined Value
ETM Administrator UserID	cissys	
ETM User Group	cisusr	

Note: It is recommended that you change the default values for security reasons.

Throughout this document the administrator user id is often referred to as the "cissys" user id. You should substitute that with the customer defined user id when not using the default value. After the initial install, the software should always be managed using that user id.

By default, the cissys userid is the only one given access to the files installed.

1. Create a group called cisusr (user group)

2. Create a user called cissys. Primary group cisusr. Set the primary shell for the cissys user to Korn Shell.

The shell scripts use the ">" to overwrite shell functionality. Your operating system may be configured to not allow this functionality by default in the users shell.

To avoid file access permission problems when executing scripts, consider placing the following command into cissys profile script:

```
set +o noclobber
```

Oracle 11.1.0.6 Client

The Java JDBC drivers must be installed as part of the client install.

The Oracle Client is only required if you are using Oracle as the database server.

Use the following command to ensure that the cissys userid is able to communicate with the Oracle database:

```
tnsping $ORACLE_SID
```

The Oracle 11.1.0.6 client is required regardless of the version of the database server. Both Oracle 11 and Oracle 10 database servers require the use of an Oracle 11 client.

Micro Focus Server Express 5.0 with WrapPack 4

Server Express is only required for environments where COBOL code will be compiled.

See the "Micro Focus" section in the Quick Install Guide for more information on the installation and licensing of this product Also note that the wrappack is a separate installation.

After installing Server Express, make sure that cissys user shell has the COBDIR environment variable set to point to the base location where Server Express has been installed.

Micro Focus Server 5.0 with WrapPack 4

Micro Focus Server is required on the tier that will be hosting the application server where Oracle Enterprise Taxation Management application code will be deployed

Micro Focus Server MUST be installed in the following directory /opt/SPLcobAS50

See the "Micro Focus" section in the Quick Install Guide for more information on the installation and licensing of this product. Also note that the wrappack is a separate installation.

Perl 5.8.8

Install Perl 5.8.8 prior to executing any Oracle Enterprise Taxation Management installation scripts.

Execute the following command to ensure that the correct version of Perl is in the cissys user profile PATH.

```
perl -V
```

If Perl is installed and in the path the above command should return Perl diagnostic and version information

Installation scripts were tested with ActivePerl Build 820. It can be downloaded from the following page: http://downloads.activestate.com/ActivePerl/

Sun Java Development Kit version 5.0 Update 16

At time of release, Solaris Java packages could be obtained from:

http://java.sun.com/products/archive/index.html

The web server relies on the 32-bit Java platform to function. The main pre-requisite requirement for the web server is the version of java mentioned above.

For the userid cissys, ensure that the environment variable JAVA_HOME is setup, and that java_home/bin and java_home/lib can be found in cissys' PATH variable.

Oracle JRockit 5.0 R27.4 Java Development Kit

This is only required if you are using Oracle WebLogic as an application server.

The web server relies on the 32-bit Java platform to function. The main pre-requisite requirement for the web server is the version of java mentioned above.

For the userid cissys, ensure that the environment variable JAVA_HOME is set up, and that "java" can be found in cyssys' PATH variable.

Ensure that the JROCKIT_HOME environment variable exists and points to your JRockit installation. For example:

```
JROCKIT_HOME=/spl/java/jrockit-R27.4.0-jdk1.5.0_12
```

Hibernate 3.2.5

Hibernate must be installed prior to the installation of Oracle Enterprise Taxation Management.

Please download the file hibernate-3.2.5.ga.zip from the following link:

http://prdownloads.sourceforge.net/hibernate/

or from the following link:

http://sourceforge.net/project/showfiles.php?group_id=40712&package_id=127784

It is very important that you download the exact version, as the product has only been certified with this exact release.

You will need to create a permanent directory to place one of the files from hibernate-3.2.5.ga.zip. (e.g. /opt/hibernate3.2.5).

For the Administrator userid (cissys), ensure that the environment variable HIBERNATE_JAR_DIR is setup and points to the above directory.

Extract the file hibernate3.jar from hibernate-3.2.5.ga.zip to the location pointed to by $HIBERNATE_JAR_DIR.

Ensure that the file $HIBERNATE_JAR_DIR/hibernate3.jar exists.

C3PO 0.9.1.2

C3PO is an easy-to-use library for augmenting traditional JDBC drivers with JNDI-bindable DataSources, including DataSources that implement Connection and Statement Pooling, as described by the jdbc3 spec and jdbc2 std extension. C3PO must be installed before installing Oracle Enterprise Taxation Management.

Please download c3p0-0.9.1.2.bin.zip from the following link:

http://sourceforge.net/project/showfiles.php?group_id=25357&package_id=88527

It is very important that you download the exact version, as the product has only been certified with this exact release.

You will need to create a permanent directory to place one of the files from c3p0-0.9.1.2.bin.zip. (e.g. /opt/c3p0-0.9.1.2).

For the Administrator userid (cissys), ensure that the environment variable C3P0_JAR_DIR is setup and points to the above directory.

Extract the file c3p0-0.9.1.2.jar from c3p0-0.9.1.2.bin.zip to the location pointed to by $C3P0_JAR_DIR.

Ensure that the file $C3P0_JAR_DIR/c3p0-0.9.1.2.jar exists

Oracle Application Server 10.1.3.1.0 32-bit

Oracle Enterprise Taxation Management can be installed on the Java, Standard or Enterprise editions of OAS. OAS can be downloaded from http://www.oracle.com/appserver/appserver_family.html.

This application server will run the Oracle Utilities/Tax OC4J applications as 32-bit applications. Oracle Application Server (OAS) relies on the JDK that is embedded within the OAS installation (the JDK is located in $OAS_HOME/jdk).

Note the following points for configuring OAS prior to doing the OAS install:

- Oracle Application Server must be installed as the cissys user

- Oracle Application Server must be installed prior to Oracle Utilities Application Framework is installed.

A single Oracle Application Server OC4J Instance represents a single Oracle Enterprise Taxation Management Environment. You are able install multiple environments on a single Oracle Application Server Installation by creating additional OAS OC4J Instances.

Follow these steps to install OAS:

1. Obtain OAS 10.1.3.1 from edelivery.oracle.com or the public download site:

   http://www.oracle.com/technology/software/htdocs/devlic.html?url=/technology/software/products/ias/htdocs/101310.html

2. Review the Software and Hardware requirements from the Installation documentation for your platform to ensure you have the necessary components.

3. Read all of the OAS documentation.

4. Extract the installer to a temporary directory and execute the runInstaller.sh or setup.exe file (Windows).

5. You will be presented with the installation screen. Enter the desired installation directory and select 'Advanced Install' at the bottom.

6. In the "Select Installation Type" window, choose ' J2EE Server and Web Server' and click next.

7. In the 'Specify Port Configuration Options' select Automatic or if you want to supply a saticports.ini file you can specify one here.

8. In the 'Administration Settings' window, specify the AS Instance Name you will use and the AS Administrator Password. Check the box that says 'Configure this as an Administration OC4J Instance'. You can accept the OC4J Instance Name that is created by the installer (home) or you can specify your own. Click Next.

9. On the 'Cluster Topology Configuration' uncheck the box and click Next.

10. On the Summary screen review your configuration and click Install.

11. For Unix & Linux systems you will be prompted to run the 'root.sh' script at the end of the install.

Configure the following items for the shell of the Administrator userid:

- For the userid cissys, ensure that its login/environment initialization script sets the environment variable OAS_HOME to point to the Oracle Home of your Oracle Application Server install. This variable must be set prior to attempting the installation of the Oracle Utilities Framework.

  For example, if you installed your software into /opt/oas you would need to put something similar to the following into your login script:

  ```
  OAS_HOME=/opt/oas; export OAS_HOME
  ```

- For the userid cissys, ensure that its login/environment initialization script sets the environment variable ORACLE_HOME points to the Oracle Home of your Oracle client installation.

Oracle Application Server Admin Console - Initial Set Up

The following activities must be completed prior to installing Oracle Enterprise Taxation Management.

Note: Make sure to apply your changes, and when prompted restart your OC4J Instance.

• Use Oracle's Enterprise Manager Application Server Console to create a new OC4J Instance and New Group Name. Select **Application Server, Create OC4J Instance**.

Note: Make sure of the following: check the radio button "Add to a new group with name", enter a Group Name in "New Group Name" field, and check the option "Start this OC4J instance after creation".

• Set static RMI Port for your OC4J Instance. Select **Administration, Server Properties**

12. Note: Ensure a different OC4J Instance is not all ready using the RMI Port you are setting. Also, set a static RMI port for the OC4J Instance of home, so there is not a port conflict when Oracle Application Server is restarted.

• Set Command Line Options for the OC4J Instance created. Select **Administration,Server Properties** under **Command Line Options**.

Enter the following under the section: **Start-parameters: Java Options**

Leave the following defaults:

-Djava.security.policy=$ORACLE_HOME/j2ee/<OC4J_Instance>/config/java2.policy

-Djava.awt.headless=true

-Dhttp.webdir.enable=false

Enter the following entries:

-Dfile.encoding=ISO8859_1

-server -Xrs -Xms1024M -Xmx1024M -XX:MaxPermSize=300m

Enter the following under the section: **Start-parameters: OC4J Options**

-properties

-userThreads

Note: These values may be defaulted when the OC4J Instance is created.

Enter the following under the section: **Configuring Stop-parameters: Java Options**

Leave the following defaults:

-Djava.security.policy=$ORACLE_HOME/j2ee/<OC4J_Instance>/config/java2.policy

-Djava.awt.headless=true

-Dhttp.webdir.enable=false

• Apply the changes and Restart the OC4J instance. The application installation utility requires that this OC4J instance be up.

Note: Once the above steps have been completed and the other Third Party Software has been installed and configured, you are now able to install the Oracle Utilities Framework. Prior to deployment of the application: You must complete the Post Installation Steps for Oracle Application Server.

Oracle WebLogic Server 10.0 MP1 - 64-bit

The following products are supported: Oracle WebLogic Server Standard Edition and Oracle WebLogic Server Enterprise Edition. Oracle WebLogic software can be downloaded from the Oracle web site. This application server will run as a 64-bit application.

• Download and install 64-bit Java (as documented above) before installing WebLogic.

• Download and install WebLogic Server 10.0 MP1.

- After installing WebLogic, ensure that the BEADIR environment variable is set to point to the WebLogic installation directory for the cissys userid

  For example, if you installed WebLogic into /opt/bea you would need to put something similar to the following into cissys login script:

  BEADIR=/opt/bea; export BEADIR

Solaris 10 Application Server

This section describes the software requirements for operating the application using the Sun Solaris 10 application server.

Supported Application Servers

Operating System	Chipsets	Application Server			
		Oracle WebLogic 10 MP1	**Oracle Application Server 10.1.3.1**	**IBM WebSphere Application Server 6.1.0.21**	**Tomcat 6.0.13**
Solaris 10 (64-bit)	SPARC	64-bit version	64 bit version	N/A	N/A

Web/Application Server Tier Requirements

Solaris 10 Operating System running on SPARC-based 64-bit architecture

UNIX Administrator Userid

The following user groups and accounts have to be created to install and administer the application:

Description	Default Value	Customer Defined Value
ETM Administrator UserID	cissys	
ETM User Group	cisusr	

Note: It is recommended that you change the default values for security reasons.

Throughout this document the administrator user id is often referred to as the "cissys" user id. You should substitute that with the customer defined user id when not using the default value. After the initial install, the software should always be managed using that user id.

By default, the cissys userid is the only one given access to the files installed.

1. Create a group called cisusr (user group)

2. Create a user called cissys. Primary group cisusr. Set the primary shell for the cissys user to Korn Shell.

The shell scripts use the ">" to overwrite shell functionality. Your operating system may be configured to not allow this functionality by default in the users shell.

To avoid file access permission problems when executing scripts, consider placing the following command into cissys profile script:

```
set +o noclobber
```

Perl 5.8.8

Install Perl 5.8.8 prior to executing any Oracle Enterprise Taxation Management installation scripts.

Execute the following command to ensure that the correct version of Perl is in the cissys user profile PATH.

```
perl -V
```

If Perl is installed and in the path the above command should return Perl diagnostic and version information

Installation scripts were tested with ActivePerl Build 820. It can be downloaded from the following page: http://downloads.activestate.com/ActivePerl/Solaris/5.8/

Oracle 11.1.0.6 Client

The Java JDBC drivers must be installed as part of the client install.

The Oracle Client is only required if you are using Oracle as the database server.

Use the following command to ensure that the cissys userid is able to communicate with the Oracle database:

```
tnsping $ORACLE_SID
```

The Oracle 11.1.0.6 client is required regardless of the version of the database server. Both Oracle 11 and Oracle 10 database servers require the use of an Oracle 11 client.

Micro Focus Server Express 5.0 with fixpack 50.02_5

Server Express is only required for environment where COBOL code will be compiled.

See the "Micro Focus" section in the Quick Install Guide for more information on the installation and licensing of this product. Also note that the fixpack is a separate installation.

After installing Server Express, make sure that cissys userid shell has the COBDIR environment variable set to point to the base location where Server Express has been installed.

Micro Focus Server 5.0 with fixpack 50.02_5

Micro Focus Server is required on the tier that will be hosting the application server where Oracle Enterprise Taxation Management application code will be deployed.

Micro Focus Server must be installed in the following directory:

/opt/SPLcobAS50

See the "Micro Focus" section in the Quick Install Guide for more information on the installation and licensing of this product. Also note that the fixpack is a separate installation.

Sun Java Development Kit version 5.0 Update 16

This software is only required for WebLogic installations. OAS installations use the JDK that is supplied with OAS.

Solaris Java packages used in the test cycle were downloaded from:

http://java.sun.com/products/archive/index.html

The web server relies on the 64-bit Java platform to function. Ensure that you install the 64-bit JDK. For Sun this involves installing the 32-bit java and then installing the 64-bit java patch over the top of the 32-bit java install.

Ensure that the environment variable JAVA_HOME is set, and that "java" can be found in cissys user PATH variable.

Hibernate 3.2.5

Hibernate must be installed prior to the installation of Oracle Enterprise Taxation Management.

Please download the file hibernate-3.2.5.ga.zip from the following link:

http://prdownloads.sourceforge.net/hibernate/

or from the following link:

http://sourceforge.net/project/showfiles.php?group_id=40712&package_id=127784

It is very important that you download the exact version, as the product has only been certified with this exact release.

You will need to create a permanent directory to place one of the files from hibernate-3.2.5.ga.zip. (e.g. /opt/hibernate3.2.5).

For the Administrator userid (cissys), ensure that the environment variable HIBERNATE_JAR_DIR is setup and points to the above directory.

Extract the file hibernate3.jar from hibernate-3.2.5.ga.zip to the location pointed to by $HIBERNATE_JAR_DIR.

Ensure that the file $HIBERNATE_JAR_DIR/hibernate3.jar exists.

C3PO 0.9.1.2

C3PO is an easy-to-use library for augmenting traditional JDBC drivers with JNDI-bindable DataSources, including DataSources that implement Connection and Statement Pooling, as described by the jdbc3 spec and jdbc2 std extension. C3PO must be installed before installing Oracle Enterprise Taxation Management.

Please download c3p0-0.9.1.2.bin.zip from the following link:

http://sourceforge.net/project/showfiles.php?group_id=25357&package_id=88527

It is very important that you download the exact version, as the product has only been certified with this exact release.

You will need to create a permanent directory to place one of the files from c3p0-0.9.1.2.bin.zip. (e.g. /opt/c3p0-0.9.1.2).

For the Administrator userid (cissys), ensure that the environment variable C3P0_JAR_DIR is setup and points to the above directory.

Extract the file c3p0-0.9.1.2.jar from c3p0-0.9.1.2.bin.zip to the location pointed to by $C3P0_JAR_DIR.

Ensure that the file $C3P0_JAR_DIR/c3p0-0.9.1.2.jar exists

Oracle Application Server 10.1.3.1.0 64-bit

Oracle Enterprise Taxation Management can be installed on the Java, Standard or Enterprise editions of OAS. OAS can be downloaded from http://www.oracle.com/appserver/appserver_family.html.

This application server will run the Oracle Utilities/Tax OC4J applications as 64-bit applications. Oracle Application Server (OAS) relies on the JDK that is embedded within the OAS installation (the JDK is located in $OAS_HOME/jdk).

Note the following points for configuring OAS prior to doing the OAS install:

• Oracle Application Server must be installed as cissys user

• Oracle Application Server must be installed before the Oracle Utilities Application Framework is installed.

A single Oracle Application Server OC4J Instance represents a single Oracle Enterprise Taxation Management Environment. You can install multiple environments on a single Oracle Application Server Installation by creating additional OAS OC4J Instances.

Use the following steps to install OAS:

1. Obtain OAS 10.1.3.1 from edelivery.oracle.com or the public download site:

   http://www.oracle.com/technology/software/htdocs/devlic.html?url=/technology/software/products/ias/htdocs/101310.html

2. Review the Software and Hardware requirements from the Installation documentation for your platform to ensure you have the necessary components.

3. Read all of the OAS documentation.

4. Extract the installer to a temporary directory and execute the runInstaller.sh.

5. You will be presented with the installation screen. Enter the desired installation directory and select 'Advanced Install' at the bottom.

6. In the "Select Installation Type" window , choose ' J2EE Server and Web Server' and click next.

7. In the 'Specify Port Configuration Options' select Automatic or if you want to supply a saticports.ini file you can specify one here.

8. In the 'Administration Settings' window, specify the AS Instance Name you will use and the AS Administrator Password. Check the box that says 'Configure this as an Administration OC4J Instance'. You can accept the OC4J Instance Name that is created by the installer (home) or you can specify your own. Click Next.

9. On the 'Cluster Topology Configuration' uncheck the box and click Next.

10. On the Summary screen review your configuration and click Install.

11. For Unix & Linux systems you will be prompted to run the 'root.sh' script at the end of the install.

    After installing OAS, you will need to upgrade the supplied OAS 32-bit JDK to one that is 64-bit capable.

    Read and perform the actions in the Metalink Document ID: 373536.1

    (Oracle Application Server 10g Release 2 (10.1.3) 64-bit JDK Upgrade Documentation for Solaris64 (SPARC))

Configure the following items for the shell of the Administrator userid:

• For the userid cissys, ensure that its login/environment initialization script sets the environment variable OAS_HOME to point to the Oracle Home of your Oracle Application Server install. This variable must be set prior to attempting the installation of the Oracle Utilities Framework.

  For example, if you installed your software into /opt/oas you would need to put something similar into your login script:

  ```
  OAS_HOME=/opt/oas; export OAS_HOME
  ```

• For the userid cissys, ensure that its login/environment initialization script sets the environment variable ORACLE_HOME points to the Oracle Home of your Oracle client installation.

Oracle Application Server Admin Console - Initial Set Up

The following activities must be completed prior to installing Oracle Enterprise Taxation Management.

   Note: Make sure to apply your changes, and when prompted restart your OC4J Instance.

Use Oracle's Enterprise Manager Application Server Console to create a new OC4J Instance and New Group Name. Select **Application Server, Create OC4J Instance**.

Note: Make sure of the following: check the radio button "Add to a new group with name", enter a Group Name in "New Group Name" field, and check the option "Start this OC4J instance after creation".

- Set static RMI Port for your OC4J Instance. Select **Administration, Server Properties**

    Note: Ensure a different OC4J Instance is not all ready using the RMI Port you are setting. Also, set a static RMI port for the OC4J Instance of home, so there is not a port conflict when Oracle Application Server is restarted.

- Set Command Line Options for the OC4J Instance created. Select **Administration, Server Properties** under **Command Line Options**.

    Enter the following under the section: **Start-parameters: Java Options**

    Leave the following defaults:

    -Djava.security.policy=$ORACLE_HOME/j2ee/<OC4J_Instance>/config/java2.policy

    -Djava.awt.headless=true

    -Dhttp.webdir.enable=false

    Enter the following entries:

    -Dfile.encoding=ISO8859_1

    -server -Xrs -Xms1024M -Xmx1024M -XX:MaxPermSize=300m

    -d64

    Enter the following under the section: **Start-parameters: OC4J Options**

    -properties

    -userThreads

    Note: These values may be defaulted when the OC4J Instance is created.

    Enter the following under the section: **Configuring Stop-parameters: Java Options**

    Leave the following defaults:

    -Djava.security.policy=$ORACLE_HOME/j2ee/<OC4J_Instance>/config/java2.policy

    -Djava.awt.headless=true

    -Dhttp.webdir.enable=false

- **Apply** the changes and **Restart** the OC4J instance. The application installation utility requires that this OC4J instance be up.

    Note: Once the above steps have been completed and the other Third Party Software has been installed and configured, you are now able to install the Oracle Utilities Framework. Prior to deployment of the application: You must complete the Post Installation Steps for Oracle Application Server.

Oracle WebLogic Server 10.0 MP1 64-bit

The following products are supported: Oracle WebLogic Server Standard Edition and Oracle WebLogic Server Enterprise Edition. Oracle WebLogic software can be downloaded from the Oracle web site. This application server will run as a 64-bit application.

- Download and install 64-bit Java (as documented above) before installing WebLogic.

- Download and install WebLogic Server 10.0 MP1.

- After installing WebLogic, ensure that the BEADIR environment variable is set to point to the WebLogic installation directory for the cissys userid

For example, if you installed WebLogic into /opt/bea you would need to put something similar to the following into cissys login script:

BEADIR=/opt/bea; export BEADIR

Windows Application Server

This section describes the software requirements for operating the application using the Windows application server.

Supported Application Servers

Operating System	Chipsets	Application Server			
		Oracle WebLogic 10 MP1	Oracle Application Server 10.1.3.1	IBM WebSphere Application Server 6.1.0.21	Tomcat 6.0.13
Windows 2003 Server R2 SP2 (64-bit)	x86_64	32-bit version	32 bit version	N/A	32-bit version development only **no production support**

Web/Application Server Tier

Oracle 11.1.0.6 Client

The Java JDBC drivers must be installed as part of the client install.

The Oracle Client is only required if you are using Oracle as the database server.

Ensure that the userid cissys has been setup to be able to communicate with the Oracle database. Use the command

```
tnsping $ORACLE_SID
```

The Oracle 11.1.0.6 client is required regardless of the version of the database server. Both Oracle 11 and Oracle 10 database servers require the use of an Oracle 11 client.

Micro Focus Net Express 5.0

This is required only for environments where COBOL code will be compiled.

See the "Micro Focus" section in the Quick Install Guide for more information on the installation and licensing of this product.

After installing Net Express, ensure that the COBDIR environment variable is set to point to the directory where Net Express is installed.

Micro Focus Server 5.0 with WrapPack 5.002.0077

Required for Oracle Enterprise Taxation Management runtime environments.

See the "Micro Focus" section in the Quick Install Guide for more information on the installation and licensing of this product. Also note that the wrappack is a separate installation.

After installing Micro Focus Server, ensure that the COBDIR environment variable is set to point to the directory where the software is installed.

Perl 5.8.8

Install Perl 5.8.8 prior to executing any Oracle Enterprise Taxation Management installation scripts.

Execute the following command to ensure that the correct version of Perl is in the cissys user profile PATH.

```
perl -V
```

If Perl is installed and in the path the above command should return Perl diagnostic and version information

Installation scripts were tested with ActivePerl Build 820. It can be downloaded from the following page: http://downloads.activestate.com/ActivePerl/Solaris/5.8/

Installation scripts were tested with ActivePerl Build 820. It can be downloaded from the following page:

http://downloads.activestate.com/ActivePerl/

Sun Java Development Kit version 5.0 Update 17

At time of release, Solaris Java packages could be obtained from:

http://java.sun.com/products/archive/index.html

The web server relies on the 32-bit Java platform to function. The main prerequisite requirement for the web server is the version of java mentioned above.

For the userid cissys, ensure that the environment variable JAVA_HOME is setup, and that "java" can be found in cissys' PATH variable.

Hibernate 3.2.5

Hibernate must be installed prior to the installation of Oracle Enterprise Taxation Management.

Please download the file hibernate-3.2.5.ga.zip from the following link:

http://prdownloads.sourceforge.net/hibernate/

or from the following link:

http://sourceforge.net/project/showfiles.php?group_id=40712&package_id=127784

It is very important that you download the exact version, as the product has only been certified with this exact release.

You will need to create a permanent directory to place one of the files from hibernate-3.2.5.ga.zip. (e.g. \opt\hibernate3.2.5).

For the Administrator userid (cissys), ensure that the environment variable HIBERNATE_JAR_DIR is setup and points to the above directory.

Extract the file hibernate3.jar from hibernate-3.2.5.ga.zip to the location pointed to by $HIBERNATE_JAR_DIR.

Ensure that the file $HIBERNATE_JAR_DIR\hibernate3.jar exists.

C3PO 0.9.1.2

C3PO is an easy-to-use library for augmenting traditional JDBC drivers with JNDI-bindable DataSources, including DataSources that implement Connection and Statement Pooling, as described by the jdbc3 spec and jdbc2 std extension. C3PO must be installed before installing Oracle Enterprise Taxation Management.

Please download c3p0-0.9.1.2.bin.zip from the following link:

http://sourceforge.net/project/showfiles.php?group_id=25357&package_id=88527

It is very important that you download the exact version, as the product has only been certified with this exact release.

You will need to create a permanent directory to place one of the files from c3p0-0.9.1.2.bin.zip. (e.g. \opt\c3p0-0.9.1.2).

For the Administrator userid (cissys), ensure that the environment variable C3P0_JAR_DIR is setup and points to the above directory.

Extract the file c3p0-0.9.1.2.jar from c3p0-0.9.1.2.bin.zip to the location pointed to by $C3P0_JAR_DIR.

Ensure that the file $C3P0_JAR_DIR\c3p0-0.9.1.2.jar exists

Tomcat 6.0.13

Tomcat is supplied as part of the "Apache Jakarta Project"

Download and unzip tomcat 6.0.13 from jakarta tomcat website to x:\installdir. A directory called apache-tomcat-6.0.13 will be created.

Download v1.0.1 jta (link is http://java.sun.com/products/jta/)

a. click link Class Files 1.0.1a

b. extract jta.jar from jta-1_0_1a.zip

c. copy jta.jar to apache-tomcat-6.0.13\lib

Modify the following file:

...\apache-tomcat-6.0.13\bin\setclasspath.bat

Change the following line in the file:

FROM:

set CLASSPATH=%JAVA_HOME%\lib\tools.jar

TO:

set CLASSPATH=%JAVA_HOME%\lib\tools.jar;%CLASSPATH%

Ensure that the shell has the CATALINA_HOME environment variable set to point to the base location of where you installed tomcat.

Oracle Application Server 10.1.3.1.0 32-bit

Oracle Enterprise Taxation Management can be installed on the Java, Standard or Enterprise editions of OAS. OAS can be downloaded from http://www.oracle.com/appserver/appserver_family.html.

This application server will run the Oracle Utilities/Tax OC4J applications as 32-bit applications. Oracle Application Server (OAS) relies on the JDK that is embedded within the OAS installation (the JDK is located in $OAS_HOME/jdk).

Note the following points for configuring OAS prior to doing the OAS install:

• Oracle Application Server must be installed as cissys

• Oracle Application Server must be installed prior to Oracle Utilities Application Framework is installed.

A single Oracle Application Server OC4J Instance represents a single Oracle Enterprise Taxation Management Environment. You can install multiple environments on a single Oracle Application Server Installation by creating additional OAS OC4J Instances.

Follow these steps to install OAS:

1. Obtain OAS 10.1.3.1 from edelivery.oracle.com or the public download site:

   http://www.oracle.com/technology/software/htdocs/devlic.html?url=/technology/software/products/ias/htdocs/101310.html

2. Review the Software and Hardware requirements from the Installation documentation for your platform to ensure you have the necessary components.

3. Read all of the OAS documentation.

4. Extract the installer to a temporary directory and execute setup.exe file.

5. You will be presented with the installation screen. Enter the desired installation directory and select 'Advanced Install' at the bottom.

6. In the "Select Installation Type" window, choose ' J2EE Server and Web Server' and click next.

7. In the 'Specify Port Configuration Options' select Automatic or if you want to supply a saticports.ini file you can specify one here.

8. In the 'Administration Settings' window, specify the AS Instance Name you will use and the AS Administrator Password. Check the box that says 'Configure this as an Administration OC4J Instance'. You can accept the OC4J Instance Name that is created by the installer (home) or you can specify your own. Click Next.

9. On the 'Cluster Topology Configuration' uncheck the box and click Next.

10. On the Summary screen review your configuration and click Install.

11. For Unix & Linux systems you will be prompted to run the 'root.sh' script at the end of the install.

Configure the following items for the shell of the Administrator userid:

• For the userid cissys, ensure that its login\environment initialization script sets the environment variable OAS_HOME to point to the Oracle Home of your Oracle Application Server install. This variable must be set prior to attempting the installation of the Oracle Utilities Framework.

   For example, if you installed your software into c:\oracle\oas you would need to put something similar into your login script:

   ```
   set OAS_HOME=c:\oracle\oas
   ```

• For the userid cissys, ensure that its login/environment initialization script sets the environment variable ORACLE_HOME points to the Oracle Home of your Oracle client installation.

Oracle Application Server Admin Console - Initial Set Up

The following activities must be completed prior to installing Oracle Enterprise Taxation Management.

   Note: Make sure to apply your changes, and when prompted restart your OC4J Instance.

• Use Oracle's Enterprise Manager Application Server Console to create a new OC4J Instance and New Group Name. Select **Application Server, Create OC4J Instance.**

   Note: Make sure of the following: check the radio button "Add to a new group with name", enter a Group Name in "New Group Name" field, and check the option "Start this OC4J instance after creation".

• Set static RMI Port for your OC4J Instance. Select **Administration, Server Properties**

   Note: Ensure a different OC4J Instance is not all ready using the RMI Port you are setting. Also, set a static RMI port for the OC4J Instance of home, so there is not a port conflict when Oracle Application Server is restarted.

• Set Command Line Options for the OC4J Instance created. Select **Administration, Server Properties** under **Command Line Options**.

Enter the following under the section: **Start-parameters: Java Options**

Leave the following defaults:

```
-Djava.security.policy=$ORACLE_HOME/j2ee/<OC4J_Instance>/config/
java2.policy
```

```
-Djava.awt.headless=true
-Dhttp.webdir.enable=false
```

Enter the following entries:

```
-Dfile.encoding=ISO8859_1
-server -Xrs -Xms1024M -Xmx1024M -XX:MaxPermSize=300m
```

Enter the following under the section: **Start-parameters: OC4J Options**

```
-properties
-userThreads
```

> Note: These values may be defaulted when the OC4J Instance is created.

Enter the following under the section: **Configuring Stop-parameters: Java Options**

Leave the following defaults:

```
-Djava.security.policy=$ORACLE_HOME/j2ee/<OC4J_Instance>/config/
java2.policy
-Djava.awt.headless=true
-Dhttp.webdir.enable=false
```

• Apply the changes and Restart the OC4J instance. The application installation utility requires that this OC4J instance be up.

> Note: Once the above steps have been completed and the other Third Party Software has been installed and configured, you are now able to install the Oracle Utilities Framework. Prior to deployment of the application: You must complete the Post Installation Steps for Oracle Application Server.

Oracle WebLogic Server 10.0 MP1 - 32-bit

The following products are supported: Oracle WebLogic Server Standard Edition and Oracle WebLogic Server Enterprise Edition.

WebLogic is not integrated into the installation media. WebLogic must be installed prior to any Oracle Enterprise Taxation Management installation

This application server will run as a 32-bit application.

• Download and install 32-bit Java (as documented above) before installing WebLogic.

• Download and install 'WebLogic Server 10.0 MP1'.

After installing WebLogic, ensure that the BEADIR environment variable is set to point to the WebLogic installation directory.

For example, if you installed the software into C:\bea\wls10, put something similar to the following into cissys user profile logon script:

```
SET WL_HOME=C:\bea\wls10
```

Chapter 5

Installing the Oracle Utilities Application Framework

Installing the Oracle Utilities Application Framework ("the framework") is the prerequisite and foundation for installing a framework-based application such as Oracle Enterprise Taxation Management. This section describes the process for installing Oracle Utilities Application Framework, including:

- **Installation Overview**

- **Preinstallation Tasks**

- **Installing Oracle Utilities Application Framework**

Installation Overview

This process replaces any previous delivered and installed version of the Oracle Utilities Application Framework Server. Before you proceed:

1. Make sure that you have installed all the required third-party software described in **Chapter 4: Software Requirements**.

2. Complete the database installation (refer to the Oracle Enterprise Taxation Management *Database Administrator's Guide*).

3. If you plan to upgrade a previously installed application server make a backup before you start a new installation.

The application server installation process of any framework-based application consists of the following architecture:

1. Oracle Utilities Application Framework installation

2. Framework-based application installation

As a first step of the application server installation, the framework application server installation package must be downloaded and installed. The application server environment is created and configured by the framework installation process.

Once the Oracle Utilities Application Framework installation is successfully completed and the framework application environment is created, the framework-based application (such as Oracle Utilities Customer Care and Billing (CC&B), Oracle Utilities Business Intelligence (BI), and Oracle Enterprise Taxation Management (ETM)) can be installed on top of the framework environment. Only one framework-based application can be installed on the particular framework environment.

Before installing a framework-based application, ensure that its version is compatible with the Oracle Utilities Application Framework version you installed. Download the framework-based product package of your choice that is compatible with your Oracle Utilities Application Framework version, connect to the created framework application environment and proceed with the installation.

You can download the installation packages from the Oracle E-Delivery site. A new installation or an upgrade can be performed for this version.

Oracle Utilities Framework Application Server may run under one of the following Web Application servers: Oracle WebLogic, IBM WebSphere, Apache Tomcat (for development only), or Oracle Application Server. Please refer to **Supported Platforms** on page 2-4 for details regarding certified platforms for each Web server.

This section describes how to install a working Oracle Utilities Application Server, which can then be further configured manually to allow for production performance levels.

Application server installation packages delivered for this version are multi-platform and are ready to install on any supported platform (as described in the section **Supported Platforms** on page 2-4). We recommend that you complete the database installation prior to application server installation.

Preinstallation Tasks

Hardware and Software Version Prerequisites

The section **Supported Platforms** on page 2-4 contains all of the available platforms that are required with this release of the product.

Database Installation

Verify that the database has been installed and is operational. See Oracle Enterprise Taxation Management *Database Administrator's Guide* for more information.

Installation Prerequisites

Chapter 4: Software Requirements describes all preparations that need to be done on the server prior to installing the application server. Please read carefully the server setup requirements and make sure that all prerequisite software is installed and that all required environment variables are set. Correct server setup and proper environment variable settings are an essential prerequisite for successful environment installation.

System Architecture Overview

Oracle Utilities Application Framework V2.2.0 is a decoupled system architecture involving a Business Service Application tier and a Web Application tier. Typically both will run on the same server, but the design does allow each tier to be installed on separate servers.

The design implements a stateless session bean (EJB technology, under Java EE 5), to provide remote access to service invocations. The root web app and XAI web apps are configurable as to whether they should access service processing locally (as in previous versions), or whether they should make a remote EJB call to perform the service request. In the latter case, the served containers, effectively, run as very thin servlet wrappers around the remote call.

For all supported application servers except for Tomcat the deployment is in the form two Enterprise Archive (ear) Files: SPLService.ear and SPLWeb.ear. Web Archive (war) files are created during the installation process but are not deployed.

Copying and Decompressing Install Media

If you are planning to install multiple Oracle Utilities Framework environments operated by different Oracle Utilities Administrator userids, you must complete each of the following installation steps for each Administrator userid.

Prerequisite

- A temporary directory such as c:\spl\temp or /spl/temp is required. (Referred to below as <TEMPDIR>)
- This directory must be located outside any current or other working Oracle Utilities application environment. All files that are placed in this directory as a part of the installation can be deleted after completing a successful installation.

The installation file is delivered in tar and zipped format for UNIX (.tar.Z) and in zipped format for Windows (.zip).

On UNIX:

1. Log in as the Oracle Utilities Framework administrator userid (default cissys).

2. Copy the FW.V2.2.0.tar.Z from the .\ Application Server\ directory on your install media to <TEMPDIR>. If you are using FTP to transfer this file to UNIX, remember to use the BINARY option for the FTP transfer.

3. Decompress the file

   cd <TEMPDIR>

   zcat FW.V2.2.0.tar.Z | tar -xf -

On Windows:

1. Log in as the Oracle Utilities Framework administrator userid (default cissys).

2. Copy the FW.V2.2.0.zip from the .\ Application Server\ directory on your install media to <TEMPDIR>. If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.

3. Unzip the file using WinZip.

   Note: It is recommended to use WinZip version 10 or higher. Previous versions could not support the number of files included in the Framework installation package.

In both cases a sub-directory called "FW.V2.2.0" is created, the content of the installation directory is identical for both platforms; it contains the installation software for the Oracle Utilities framework application server.

Preparing for the Install Process

Set Permissions for the cistab File

Every Oracle Utilities Application Framework environment installed on a server must be registered in the /etc/cistab file located on that server. On UNIX servers, generally only the root userid has write permissions to the /etc directory. Since the installation process is run by the Oracle administrator userid (cissys), this userid may not be able to write to /etc/cistab table.

The install utility checks permissions and if it identifies a lack of the necessary permissions, it generates a script in the <TEMPDIR>/FW.V2.2.0 directory named cistab_<SPLENVIRON>.sh. Run the generated script using the root account before continuing with the installation process. The script initializes the cistab file in /etc directory (if it is the first Oracle Utilities Framework application environment on the server) and registers a new environment.

The generated script also changes the owner of /etc/cistab file to the Oracle Utilities Framework administrator userid, so that the next time a new environment is created by the same Oracle Utilities Framework administrator userid, you do not need to run the generated script with the root userid. Instead the install utility itself proceeds with the registration.

If you are reinstalling an existing environment, only the validation of /etc/cistab entry is done by the install utility, no new registration occurs. The install utility interactively instructs you about every step that needs to occur in each specific case.

If you are planning to upgrade an existing environment it is your responsibility to take a backup prior to the installation process. The installation utility does create a backup of existing environment.

Installing Oracle Utilities Application Framework

This section outlines the steps for installing the Application Framework.

Brief Description of the Installation Process

1. Logon as Oracle Utilities Framework administrator (cissys on UNIX) or as a user with Administrator privileges (on Windows)

2. Configure your application server and any third-party software required for your platform, as outlined in **Chapter 4: Software Requirements**.

    e.g. HIBERNATE_JAR_DIR, C3P0_JAR_DIR, JAVA_HOME etc

    e.g. Create the OC4J Instance for OAS or a server for WebSphere

3. Change directory to the <TEMPDIR>/FW.V2.2.0 directory.

4. Start the application installation utility by executing the appropriate script:

    UNIX: ./install.sh

    Windows: install.cmd

5. Follow the messages and instructions that are produced by the application installation utility. Use the completed worksheets Environment Installation Options Checklist and Environment Configuration Checklists to assist you.

6. If the install script execution was not stopped due to errors and you did not interrupt the execution, the installation of the Oracle Utilities Framework Application Server is complete.

Detailed description of the Installation Process

1. Logon as Oracle Utilities administrator

    Logon as cissys (on UNIX) or as a user with Administrator privileges (on Windows)

2. Configure application server and third-party software

    Complete steps outlined in **Chapter 4: Software Requirements** such as setting the required environment variables (e.g. HIBERNATE_JAR, C3P0_JAR_DIR, JAVA_HOME etc) and, depending on your application server, creating an Oracle Application Server OC4J instance or WebSphere server instance you will need to obtain specific information for the install.

3. Start application installation utility

    execute the appropriate script:

    UNIX: /install.sh

    Windows: install.cmd

4. Complete the Environment Installation Options

    •   Use the completed Environment Installation Options Worksheet to assist you to complete this step. See **Installation and Configuration Worksheets** on page 3-6.

        Note: You must create the directory for output (the Log Mount Point). The installation process fails if this directory does not exist.

    •   Specify the environment name and the environment directory names for a new installation on a menu screen.

    •   Specify the type of the database your environment will be connected to (the default will be Oracle).

    •   Specify the Web Application Server your environment will run with (the default will be WebLogic).

- • Specify if this environment will be used for the Oracle Utilities Customer Care and Billing or Oracle Enterprise Taxation Management product.

- • Enter "P" to accept the selected options.

- • During this step, the specification of a new environment is checked for validity against /etc/cistab and permissions on mount points and directories.

5. Application Installation Utility copies the installation media to a new environment

- • The installation utility copies the new version software from the temporary installation media directory to the new environment.

- • If any manual or electronic interruption occurs during this step, you can rerun the install utility from the beginning and follow the interactive instructions. The application installation utility is able to recover from such a failure.

6. Configure environment parameters

- • During this step you will configure environment parameters such as Web server hosts and ports, database name, userid, etc.

- • The application installation utility shows default values for some configuration options.

- • Use the completed Environment Configuration Worksheet to assist you to complete this step.

  Note: Every option requires a value for a successful install. It is important to provide all values.

- • When you are done with the parameters setup, proceed with the option:

- • "P. Write Configuration File"

- • You will be warned if you did not edit a section. You may proceed if you want to keep the default settings.

- • *On completion of this step, $SPLEBASE/etc/ENVIRON.INI file is created. This file contains the specific environment profile parameters and their values.*

7. Set up environment variables

   Once $SPLEBASE/etc/ENVIRON.INI file is created and contains the correct environment parameters, the application installation utility starts a sub shell to the current process by executing the splenviron.sh (on UNIX) or splenviron.cmd (on Windows) script, located in $SPLEBASE/bin directory. This script sets up all the necessary environment variables and shell settings for the application server to function correctly.

   From this point, a number of environment variables have been set up. Some key ones are:

- • $PATH - an adjustment to $PATH is made so that all of the environment scripts and objects will be in the path.

- • $SPLEBASE (%SPLEBASE%) - stands for <SPLDIR>/<SPLENVIRON> directory

- • $SPLOUTPUT (%SPLOUTPUT%) - stands for <SPLDIROUT>/<SPLENVIRON> directory

  Note: Make sure that this directory exists. Otherwise the installation script will fail.

- • $SPLENVIRON (%SPLENVIRON%) - environment name

   For future operations or any post installation steps, you need to first execute the following command to connect your session to the new environment.

   UNIX: $SPLEBASE/bin/splenviron.sh -e $SPLENVIRON

   Windows: %SPLEBASE%\bin\splenviron.cmd -e %SPLENVIRON%

You need to execute this script each time you want to be connected to the specific environment before performing manual operations such as shutdown, startup or performing an additional application product installation.

When you have finished the install process, your current online session will be connected to the new environment.

8. Generate environment configuration parameters

    The application installation utility executes the script initialSetup.sh (on UNIX) or initialSetup.cmd (on Windows), located in $SPLEBASE/bin (%SPLEBASE%\bin on Windows) directory. This script populates different application configuration files with the new environment variables values and completes the rest of the installation steps.

    > Note: The initialSetup script encrypts the user ID and password values in the configuration files that it creates.

    There will be two ear files created for OAS, WebSphere, WLS, and OC4J Standalone, see the supported platform section for settings and configuration.

9. Deployment for OAS and WebSphere

    The installation utility will prompt you to deploy the ear files for OAS and WebSphere, if you will be installing ETM, CC&B or BI enter "N" and proceed to the next step.

    > Note: Prior to deployment of the ear files you should check **Chapter 4: Software Requirements** of this document, for the needed configuration settings.

10. Start up the environment

    The final step of the installation process will ask if you would like to start the environment, you should select "N" if you are planning on installing ETM, CC&B or BI on top of the Oracle Utilities Framework.

    When you select "Y":

    The install utility executes the command:

    UNIX: spl.sh start

    Windows: spl.cmd start

    Follow the messages on the screen along with the logs in $SPLSYSTEMLOGS directory to ensure that the environment was started successfully.

    If the startup failed, identify the problem by reviewing the logs. Resolve any issues before attempting to restart the environment.

    You should postpone the startup process until you are done with post installation steps.

    Use the following utility to stop the environment:

    UNIX: spl.sh stop

    Windows: spl.cmd stop

Chapter 6

Installing Oracle Enterprise Taxation Management

This section describes the procedure for installing Oracle Enterprise Taxation Management on top of the previously created Oracle Utilities Application Framework environment. This section includes:

- **Preinstallation Tasks**

- **Installing the Application**

- **Installing User Documentation**

- **Additional Tasks Required for Oracle Application Server**

- **Additional Tasks Required for WebSphere**

- **Configuring the System for Connection with Web Self Service Application**

- **Operating the Application**

You can download the installation package from Oracle E-Delivery. If the Framework installation was processed on previously existing Oracle Enterprise Taxation Management environment, then customer modifications relevant for this version and compliant with the proper naming conventions (as described in the *Oracle Enterprise Taxation Management Database Administrator's Guide)* have been preserved in the new environment by the Framework installation process.

To proceed with the Oracle Enterprise Taxation Management installation you need to be connected to the target framework application environment. See the detailed installation instructions in the following section.

You MUST initialize the Framework environment ALONG with the required Patch Set prior to proceeding with Oracle Enterprise Taxation Management Application product installation. For detailed instructions see **Preparing for the Installation** on page 6-2.

Preinstallation Tasks

This section describes the steps that should be taken before installing Oracle Enterprise Taxation Management.

Copying and Decompressing Install Media

The installation file is delivered in jar format for both UNIX and Windows platforms.

Oracle Enterprise Taxation Management is delivered in a separate installation package per supported Operating System. Please refer to the **Supported Platforms** on page 2-4 for version and installation details regarding the database and operating system versions. Also see **Chapter 4: Software Requirements** for prerequisite third-party software installation instructions.

Download the installation package for your operating system and proceed with the following instructions.

1. Log in to the host server as the Oracle Enterprise Taxation Management administrator userid (default cissys).

2. Create a <TEMPDIR> directory on the server, which is independent of any current or other working Oracle Enterprise Taxation Management application environment.

3. Copy the file TAX.V2.2.0-<Platform>.jar from the TAX.V2.2.0-<Platform> directory, under the delivered package, to a <TEMPDIR> on your UNIX box. If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.

4. Decompress the file:

```
cd <TEMPDIR>

jar -xvf TAX.V2.2.0-<Platform>.jar
```

> Note: You will need to have java jdk installed on the machine used to (un)jar the application server installation package. Please install the JDK that is supported for the install on your platform to be able to use the jar command. This is the location of Java packages: http://java.sun.com/products/archive/index.html

For Windows installs, include the location of the JDK in your path before you execute the jar command to access the Business Intelligence.

In both cases Unix or Windows platforms, a sub-directory called "TAX.V2.2.0" is created. The content of the installation directory is identical for both platforms; it contains the install software for the application product.

Preparing for the Installation

1. Logon as Oracle Enterprise Taxation Management Administrator (default cissys).

2. Initialize the Framework environment that you want to install product into.

   - **UNIX:** $SPLEBASE/bin/splenviron.sh -e $SPLENVIRON

   - **Windows:** $SPLEBASE\bin\splenviron.cmd -e %SPLENVIRON%

3. Stop the environment if running.

   - **UNIX:** $SPLEBASE/bin/spl.sh stop

   - **Windows:** %SPLEBASE%\bin\spl.cmd stop

Installing the Application

1. Change to the <TEMPDIR>/TAX.V2.2.0 Directory.

2. Execute the script:

   - **UNIX:** ksh ./install.sh

   - **Windows:** install.cmd

     Note: On UNIX, ensure that you have the proper execute permission on install.sh

3. Follow the messages and instructions that are produced by the install utility. Please note that some of the steps (such as the genAppViewer) will take some time to complete.

4. If the install utility execution was not stopped due to errors and you did not interrupt the execution, you have finished the installation of the Oracle Enterprise Taxation Management Application product.

5. Once the install utility has finished successfully, you will need to execute:

Unix:

   splenviron.sh -e <ENV_NAME>

   configureEnv.sh

   Type "P" and <ENTER> (you don't need to change anything)

   splenviron.sh -e <ENV_NAME>

   initialSetup.sh

Windows:

   splenviron.cmd -e <ENV_NAME>

   configureEnv.cmd -e <ENV_NAME>

   Type "P" and <ENTER> (you don't need to change anything)

   splenviron.cmd -e <ENV_NAME>

   initialSetup.cmd

Notes.

- For WebSphere environment installation: at the end of the installation process you will be prompted whether to deploy the application into WebSphere server. If you reply "Y" the installation script will deploy the application into WebSphere using wsadmin tool. If you reply "N" you may deploy the application into WebSphere manually using WebSphere admin console, or by executing the genwasdeploy utility.

- For Oracle Application Server environments installations: at the end of the installation process you will be prompted whether to deploy the application into OAS server. If you reply "Y" the installation script will deploy the application into OAS using the genoasdeploy utility. If you reply "N" you may deploy the application into OAS manually using the OAS Admin console, or by running the genoasdeploy utility.

6. Start up the environment.

The final step of the installation process is the environment startup. The install utility executes the command spl.sh start (for UNIX) or spl.cmd start (for Windows) to start up the environment. You may start the environment by this command any time. Follow the messages on the screen and check the logs in $SPLSYSTEMLOGS (%SPLSYSTEMLOGS% on Windows) directory to ensure that the environment was started successfully. If the startup failed, identify the problem by reviewing the logs, and start up the environment manually while you are connected to the new environment in your online session.

Note:

- For WebSphere environment installations: since the WebShere server usually runs under root userid, it needs to be restarted with the new environment variable settings after Oracle Enterprise Taxation Management environment installation and deployment into WebSphere. To do this switch to root userid, setup $WAS_HOME environment variable (and all the rest of environment variables as described in Supported Platforms document), intialize the newly installed environment by executing the command: $SPLEBASE/bin/splenviron.sh -e $SPLENVIRON and after that shutdown and startup WebSphere server using WebSphere commands, e.g. $WAS_HOME/bin/startServer.sh server1. After initial server restart you may start the application by Oracle ETM environment startup/shutdown commands or through WebSphere Admin console.

Installing User Documentation

This section provides instructions for installing the Oracle Enterprise Taxation Management user documentation that is supplied with the system. Oracle Enterprise Taxation Management user documentation in printable format is provided as PDF documents. The zip file ETM V2.2.0 User Documentation.zip located in the Oracle Enterprise Taxation Management installation package contains all of the documents.

The documentation is also provided in HTML document format located inside Oracle Enterprise Taxation Management application server installation package. It is automatically installed and can be launched from the user interface. The files are under the applications directory packaged in the file named help.war. User documentation is provided in English (ENG). The documentation material is divided into the following subdirectories underneath the language directory:

- T1: Oracle Enterprise Taxation Management Administration and Business Process Guides

- F1: Oracle Utilities Application Framework Administration and Business Process Guides

> Note. The Oracle Enterprise Taxation Management Help is automatically installed for use with Oracle Enterprise Taxation Management application. Use Oracle Enterprise Taxation Management UI to launch the help. There is nothing additional that you need to do unless you want to also launch it in stand-alone mode (for this option, see installations instructions following).

Installing Stand-alone Online Help

You can also use the Oracle Enterprise Taxation Management online help in stand-alone mode (i.e., you do not have to launch it from the Oracle Enterprise Taxation Management application or access it on the application server).

To install the Oracle Enterprise Taxation Management help for stand-alone operation, copy the help.war from the Oracle Enterprise Taxation Management server (environment) or from the Oracle Enterprise Taxation Management installation package to the server or machine on which you want to access the help. If you want to copy the file from any installed Oracle Enterprise Taxation Management environment, you can locate the file in the $SPLEBASE/splapp/ applications directory on the server.

Unzip help.war file to any directory on your machine. To launch the Oracle Enterprise Taxation Management help in stand-alone mode, open the SPLHelp.html file (located inside the language directory that you wish to use).

> Note. Do not change the subdirectory names. The documents use relative pathnames to hyperlink to other documents. Changing the subdirectory names will result in broken hyperlinks.

Customizing Help for Stand-alone Operation

You can customize the SPLHelp.html file to open to the file and topic that you most frequently use. To do so, edit the SPLHelp.html file and change the DEFAULT_BOOKMARK to the desired location. The default DEFAULT_BOOKMARK is 'helpHome.html'.

Installing Stand-alone Help under Web Server

You can also install Oracle Enterprise Taxation Management online help as a stand-alone web application. Use any Web Application server like WebLogic, Tomcat or WebSphere. Configure configuration file for your web application server to use web application help.

For example,

- For WebLogic   - configure config.xml file for deployed application Name="help" with URI="help.war" and set WebServer DefaultWebApp="help"

- For WebSphere - configure application.xml with module id="WebModule_help" and <web-uri>help.war</web-uri>

- For Tomcat   - configure server.xml with Context path="/help" and docBase= full path of help.war file

Access the documentation from the browser by the following URL :
http://<host name>:<port name>/<Lang>/SPLHelp.html, where <hostname>:<portname> is the URL of the web server, <Lang> is the name of the language directory, for example, ENG.

> Note: Stand-alone online help files are not automatically updated when changes are made to the help files on the application server. You will have to re-install the stand-alone online help files.

Integrating Customer Modifications into the Upgraded Environment

If you are upgrading/installling into an existing environment that had customer modifications, the install utility will have backed up all your customer modifications in a temporary installation area and copied them back into the environment at the end of the upgrade process. The section Naming Conventions for Tailoring Oracle Enterprise Taxation Management Application Implementation describes the rules supported by the installation utility to preserve customer modifications. This chapter also discusses the naming conventions for implementing custom modules.

The configuration files of the the existing environment are backed up in the directory $SPLEBASE/etc on UNIX and %SPLEBASE%\etc on Windows during installation by the install scripts to preserve any customer changes made. Since technologically the framework of this version differs significantly from all previous versions, all configuration files are regenerated from the new templates by the installation process and any previous customer modifications to these configuration files will need to be reapplied manually where applicable, using the backed up files as a reference.

The upgraded version of Oracle Enterprise Taxation Management base product may require significant changes to be done to integrate into the new version. Please refer to the Oracle Enterprise Taxation Management Software Development Kit product documentation for instructions how to do that.

In case no code changes are required to be applied to the upgraded environment, it is necessary to rebuild the CM Java sources. In order to run this build, follow these steps:

1. Execute applyCM from corresponding Oracle Enterprise Taxation Management Software Development Kit version on the upgraded environment with option "-b" (full build) option. For more details, see the document 02Cookbook.doc within Oracle Enterprise Taxation Management Software Development Kit documentation:

   UNIX: cd $SPLEBASE

```
<SDK bin folder>/applyCM.sh -b
```

Windows: cd %SPLEBASE%

```
<SDK bin folder>\applyCM.cmd -b
```

The script initialCMSetup utility is provided for your convenience to help complete the reintegration of your custom modifications into the new environment. The script compiles all custom implementation COBOL modules (prefixed with CMP or CML).

To execute initialCMSetup utility:

1.   Login to the host server with Oracle Enterprise Taxation Management administrator userid.

2.   Connect your session to the target environment with the following command:

   UNIX: $SPLEBASE/bin/splenviron.sh -e $SPLENVIRON

   Windows: %SPLEBASE%\bin\splenviron.cmd -e %SPLENVIRON%

3.   Execute the command:

   UNIX: initialCMSetup.sh

   Windows: initialCMSetup.cmd

Additional Tasks Required for Oracle Application Server

The install.sh (for UNIX) and install.cmd (for Windows) script allows the installer to deploy the application to Oracle Application Server. This step includes deployment and automatic start up of the application.

The very first time this start up will fail, because some environmental variables must be set through the Oracle Application Server admin console. In addition, the application admin userid SYSUSER needs to be created after the application has been deployed.

Configuring Server Properties Variables

From the admin console main page select, **OC4J instance, Administration, Server Properties**

Set Command Line Options for the OC4J Instance created. **Administration, Server Properties** under **Command Line Options**.

On UNIX

Enter the following under the section: **Start-parameters: Java Options**

Enter the following entries::

```
-Xbootclasspath/a:<$SPLEBASE>/splapp/standalone/lib/xalan-
2.7.0.jar:<$SPLEBASE>/splapp/standalone/lib/serializer-
2.7.0.jar:<$SPLEBASE>/splapp/standalone/lib/antlr-2.7.6.jar

-Djavax.xml.transform.TransformerFactory=
org.apache.xalan.processor.TransformerFactoryImpl
```

> Note: Substitute <$SPLEBASE> with the actual value for your installation:
> e.g. /spl/V220_FW_OAS_ORA

On Windows

Enter the following under the section: **Start-parameters: Java Options**

Enter the following:

```
-Xbootclasspath^/a:<%SPLEBASE%>\splapp\standalone\lib\xalan-
2.7.0.jar;< %SPLEBASE%>\splapp\standalone\lib\serializer-2.7.0.jar;<
%SPLEBASE%>\splapp\standalone\lib\antlr-2.7.6.jar

-Djavax.xml.transform.TransformerFactory=
org.apache.xalan.processor.TransformerFactoryImpl
```
> Note: Substitute <%SPLEBASE%> with the actual value for your installation:
> e.g. C:\spl\V220_FW_OAS_ORA

Configuring Environmental Variables

From the admin console main page select **OC4J instance, Administration, Server Properties**

- Under Environment Variables add:

On Linux and Sun:

LD_LIBRARY_PATH=<SPLRUN>

Substitute <SPLRUN> with the actual environment variable content

Example of completed environment variables section on Solaris and Linux:

LD_LIBRARY_PATH=/spl/V220_FW_DEV/runtime

On AIX:

LIBPATH=<SPLRUN>

Substitute <SPLRUN> with the actual environment variable content

Example of completed environment variables section on AIX:

LIBPATH=/spl/V220_FW_DEV/runtime

On HPUX:

SHLIB_PATH=<SPLRUN>

Substitute <SPLRUN> with the actual environment variable content

Example of completed environment variables section on HP-UX:

SHLIB_PATH=/spl/V220_FW_DEV/runtime

On Windows:

JAVA_HOME=<JAVA_HOME>

SPLENVIRON=<SPLENVIRON>

PATH=<SPLRUN>;<COBDIR>\bin

CLASSPATH=<COBDIR>\bin\mfcobol.jar

Substitute <JAVA_HOME> with the actual environment variable content

Substitute <SPLENVIRON> with the actual name you choose during the Framework installation

Substitute <SPLRUN> with the actual environment variable content

Substitute <COBDIR> with the actual environment variable content

Example of completed environment variables section on Windows:

JAVA_HOME=d:\spl\jdk1.5.0_10

SPLENVIRON=V220_FW_DEV

PATH=D:\spl\V220_FW_DEV\runtime;C:\Micro Focus\Net Express 5.0\Base\Bin

CLASSPATH=C:\Micro Focus\Net Express 5.0\Base\Bin\mfcobol.jar

Create cisusers Role

From the admin console main page select **OC4J instance , Administration , Security , Security Providers , Instance Level Security , Realms , Roles , Create**

• Enter cisusers

• Click **OK**

> Note: If you are deploying SPLService and SPLWeb to separate OC4J instances be sure to perform this step to both instances.

Create User

From the admin console main page, select **OC4J instance , Administration , Security , Security Providers , Instance Level Security , Realms , Users , Create**

• Create User of SYSUSER and Password of sysuser00 and grant the role of cisusers

• Click **OK**

> Note: If you are deploying SPLService and SPLWeb to separate OC4J instances be sure to perform this step to both instances.

Application Deployment

You will need to deploy the application after running the application installation utility.

You can use either the supplied scripts or manually deploy the ear files that the application installation utility has created.

Deployment using supplied script

On Unix: genoasdeploy.sh

On Windows: genoasdeploy.cmd

Note: Before running the script ensure you have initialized the environment by running splenviron.sh (Unix) or splenviron.cmd (Windows)

Deployment via the Admin Console

Navigate to the OC4J that has been set-up and configured for your installation, proceed to Deploy the SPLService.ear file (Always do this one first).

The application needs to be deployed in the following order:

1.   SPLService.ear

2.   SPLWeb.ear

The SPLService.ear should be successfully deployed before deploying SPLWeb.ear

To deploy SPLService.ear:

1.   In the **Deploy: Select Archive** screen, select **Location on the Server** - SPLSevice.ear

2.   Select **Next**

3.   In the **Deploy: Application Attributes** screen, select the Application Name - SPLService

4.   Select **Next**

The **Processing: Deploy** screen shows that the application is being deployed.

Deploy Web

If the SPLService.ear file has been deployed successully, then proceed to deploy the SPLWeb.ear file.

Follow the same steps given for deploying SPLService above. Use the defaults settings when deploying the SPLWeb.ear file in the OAS console.

Application URL

The Web link to the Oracle Application Server application will be:

http://<server name>:<WLPORT>/spl-<OC4J Instance Name>/cis.jsp

Example:

http://sf-sunapp-24:6500/spl-OC4J1/cis.jsp

Additional Tasks Required for WebSphere

Configure the Environment Entry

Under **Application servers , < server_Name > , Java and Process Management , Process Definition , Environment Entries,** Add the entry:

Name: LIBPATH

Value: <$SPLEBASE>/runtime

> Note: Substitute $SPLEBASE with appropiate values for your installation. You will need to restart the server_Name prior to attempting to start the ETM application on the server.

Application Deployment

You will need to deploy the application after running the application installation utility.

You can use either the supplied scripts or manually deploy the ear files, which the application installation utility has created.

If you use the supplied script you will still need to configure application security through the console. See **Configure Application Security** on page 6-12 section.

Deployment using supplied script

Application deployment script

On Unix: genwasdeploy.sh

> Note: Before running the script ensure you have initialized the environment by running splenviron.sh

Deployment via the Admin Console

Follow these steps to deploy hte application using the Admin Console:

Deployment Order

The application needs to be deployed in the following order:

1. SPLService.ear

2. SPLWeb.ear

> The SPLService.ear should be successfully deployed before deploying SPLWeb.ear

Deploying SPLService.ear

1. Select the ear file to deploy

    Select **Applications , Install New Application**

    Select Remote file system

    Browse to the SPLService.ear or enter the full path

    The ear files can be found under $SPLEBASE/splapp/applications

2. Assign the module to the Websphere server instance

    When deploying an application from the console make sure you select the right server and press Apply button:

3. Specify the JNDI name

    The JNDI name is spl-<server name>/servicebean

    eg. spl-server6/servicebean

(it can be found in the spl.properties in SPLApp/web-inf/classes/spl.properites)

4. Review summary page

    Review installation Options

    Click **Finish** - the application will then deploy

5. Application is deployed to the server

    The deployment process takes about 5 minutes

    Click **Save** (the save process can take 20 minutes)

Deploying SPLWeb.ear

1. Select the ear file to deploy

    Select **Applications, Install New Application**

    Select Remote file system

    Browse to the SPLWeb.ear or enter the full path

2.   Assign the module to the Websphere server instance

    When deploying an application from the console make sure you select the right server and press **Apply**.

3.   Review summary page

     Click **Finish** - the application will then deploy

4. Application is deployed to the server

     The deployment process above can take 5 minutes or more

    Click **Save** (the save process can take 20 minutes)

Configure the applications

You need to apply these steps to both the SPLWeb and SPLService applications unless specified.

1. Set the startup order of the applications (only applies to SPLWeb)

    Select the SPLWeb application from **Applications, Enterprise Applications**

    Select **Startup behaviour**

    Change the startup order to 2

    Click **OK**

    Click **OK** and **Save directly to master configuration**

2.   Set the class loading order (only for SPLWeb.ear)

    Select **Class loading and update detection**

    Set Polling interval to 0

    Under Class loader order select **Classes loaded with application class loader first**

    Click **OK** and **Save to master configuration**

3.   Set the module starting weight

     SPLService only - set the Starting weight to 1

     SPLWeb only - for each module (.war):

    set the Starting weight to 10000

change the Class loader order to

Classes loaded with application class loader first

Configure Application Security

After using the supplied script to deploy the application to WebSphere you will need to configure each application's security before starting the application.

Using the WebSphere administration console select **Applications , Enterprise Applications , SPLService-<server name> (eg. SPLService-server2) , Security role to user/group mapping**

For role cisusers:

- Check **All Authenticated**

- Check **Select** and click **Look up users**:

    - Search for SYSUSER and add to the **Selected users** list

    - Click **OK**

        Note: Be sure to configure security for both SPLService and the SPLWeb applications

Restart the WebSphere Server

It is recommended to now stop, and then start the WebSphere server.

If the application is deployed in server1 you can use the admin console to stop and start the server. If the application is deployed in another server you will need to use the scripts that are supplied with WebSphere (stopServer.sh, startServer.sh).

Note: WebSphere admin console runs under server1.

Application URL

The Web link to the WebSphere application will be:

http://<hostname>:<WebSphere Port No>/spl-<server name>/cis.jsp

eg.http://sf-aixapp-02:9085/spl-server6/cis.jsp

Configuring the System for Connection with Web Self Service Application

Web Self Service application (WSS) is supplied as a separate package and can be installed outside of Oracle Enterprise Taxation Management environment. Refer to the document *Oracle Enterprise Taxation Management Third Party Products Installation Guide* for more details.

Operating the Application

At this point your installation and custom integration process is complete.

Be sure to read the *Oracle Enterprise Taxation Management Operations and Configuration Guide* for more information on further configuring and operating the Oracle Enterprise Taxation Management system.

Chapter 7

Additional Tasks

This section describes tasks that should be completed after installing Oracle Enterprise Taxation Management, including:

- **Customizing Configuration Files**
- **Executing Batch Programs Interactively on Windows**
- **Executing Batch Programs Interactively on UNIX**
- **Integrating Customer Modifications into the Upgraded Environment**
- **Generating the Application Viewer**
- **Batch Daemon Submission Options**
- **Building Javadocs Indexes**

Customizing Configuration Files

You may wish to make customer modifications to various configuration files. To proceed, you should locate the configuration file you want to customize and edit it manually.

Configuration files are generated from delivered templates in the Oracle Utilities installation and are populated by values entered by the installation utility during the configuration process. In future upgrades of Oracle Utilities application software versions, some templates may be changed to reflect new software version requirements. In this case, the upgrade process will back up your customized configuration file and will regenerate a configuration file based on a new template. You will need to review the new configuration file and apply your customized changes back if still applicable for the new version.

For configuration files that are located in a web application (for example, web.xml, hibernate.properties), of the web application during installation process, you will not be able to edit configuration files directly.

You will need to follow the procedure:

• Locate configuration file you want to customize in the directory $SPLEBASE/etc/conf

• Apply your changes

• Update application war file with the latest changes by executing the command:

 UNIX: $SPLEBASE/bin/genupdatewar.sh

 Windows: %SPLEBASE%\bin\genupdatewar.cmd

Executing Batch Programs Interactively on Windows

Executing a batch job interactively is a process involving two steps.

Initializing a Windows command shell

Most command files and scripts that are provided with the system need to be run from a Windows command prompt.

Before such scripts can be run, a Windows command window must be opened and that command window must be 'initialized' by running the splenviron.cmd script provided with the system.

The command window should be opened on the Windows server that you installed the application on.

In the below example you should replace the variables:

%SPLEBASE% with the Full directory name that you installed the application into

and

%SPLENVIRON% with the name you gave to the environment at installation time.

To initialize the environment type the following in your command prompt:

```
%SPLEBASE%\bin\splenviron.cmd -e %SPLENVIRON%
```

e.g.

```
D:\spl\TEST_ENVIRON1\bin\splenviron.cmd -e TEST_ENVIRON1
```

Executing a batch program

After initializing the shell you simply need to type

%SPLEBASE%\bin\SPLBATCH.cmd

You will see a number of output lines before you are interactively prompted for the "Batch Code" as well as every other parameter that is relevant to that batch code.

Executing Batch Programs Interactively on UNIX

Initializing a UNIX Shell

The scripts that are provided with the system need to be run from a UNIX shell prompt on the machine that you installed the application on.

Before such scripts can be run the UNIX shell must be 'initialized' by running the splenviron.sh script provided with the system.

You will need to logon to your UNIX box as the Oracle Utilities Administrator (default cissys) and open a shell prompt.

In the below example you should replace the variables

$SPLEBASE with the Full directory name that you installed the application into

and

$SPLENVIRON with the name you gave to the environment at installation time.

To initialize the environment type:

$SPLEBASE/bin/splenviron.sh -e $SPLENVIRON

e.g.

/SPL/TEST_ENVIRON1/bin/splenviron.sh -e TEST_ENVIRON1

Executing a batch program

After initializing the shell you simply need to type

$SPLEBASE/bin/SPLBATCH.sh

You will see a number of output lines before you are interactively prompted for the "Batch Code" as well as every other parameter that is relevant to that batch code.

Integrating Customer Modifications into the Upgraded Environment

If the installation utility was executed on a previously existing environment, it will preserve customer modifications according to the rules described in the Naming Conventions for Tailoring Oracle Utilities application Implementation section of the *Oracle Enterprise Taxation Management Database Administrator's Guide*. In most cases, additional development or configuration actions need to be taken to adjust and integrate upgraded customer modifications to the new version.

Refer to Application Product Installation section of this document and to SDK documentation for more information.

Generating the Application Viewer

The Application Viewer that is delivered with the system includes COBOL source code and xml services. You may extend Application Viewer capabilities within an environment by generating additional items. The additional items that can be generated include algorithm type and related algorithm information, maintenance object information and data dictionary information.

This section details the steps necessary to generate the additional items.

1. Initialize a command shell

    Follow the steps in the sections

    Initializing a Windows command shell on page 7-3

    Or

    Initializing a UNIX Shell on page 7-4

2. Execute the script to generate all information

Execute the following command for your operating system

UNIX:

```
ksh $SPLEBASE/bin/genappvieweritems.sh
```

Windows:

```
%SPLEBASE%\bin\genappvieweritems.cmd
```

3. Redeploy your application

After you have performed the above steps you will need to redeploy the application into the web application server.

You may use supplied scripts genwasdeploy.sh for WebSphere and genoasdeploy.sh for Oracle Application Server, or use a rapid deployment method supplied with your particular web application server.

Batch Daemon Submission Options

Batch Submission using the Online JVM

Note: The functionality provided in previous releases with the scripts submitbatch.plx and cdxcronbatch.sh is no longer supported. These scripts have been deprecated in favor of the below multithreaded java batch daemon.

This step is necessary only if your organization uses either Oracle Enterprise Taxation Management 's batch scheduler or if you wish to submit ad-hoc batch jobs from the online application. This option is a good choice for low-volume, low activity environments.

Before jobs can be submitted from the on-line Batch Job Submission page, two batch components need to have been started: 1) a batch "worker" and 2) the batch-scheduling daemon. A "worker" node is responsible for running the batch jobs that are requested by the daemon.

The following describes how to start a worker and the daemon to allow for job submissions from the on-line system.

A batch worker node can be started as part of the application server, or as a standalone process.

Starting the batch worker

A batch worker node can be started as part of the application server, or as a standalone process.

When using the Online JVM option you should have the following settings when you run configureEnv.sh / cmd:

```
Batch Server Enabled:              true
Batch Threads Number:              5
Batch Scheduler Daemon:            true
```

Batch worker as part of the application server

For low-volume, low-activity environments (e.g. development, testing), this is a good choice because of the smaller resource footprint. To start it like this, simply specify the following application server properties:

com.splwg.grid.online.enabled=true

com.splwg.grid.distThreadPool.threads.DEFAULT=5

The first property allows the application server JVM to run batch jobs. See Thread Pool below for a description of the second property.

Standalone batch worker

To start a worker node as a standalone process, a JVM is started with the following properties:

com.splwg.batch.submitter=false

com.splwg.grid.distThreadPool.threads DEFAULT=5

The first property specifies that the JVM being started is a "worker" JVM (i.e. it is not a "submitter" JVM). See Thread Pool below for a description of the second property.

Thread Pool

The distributed thread pool property in the examples above assign the worker to thread pool "DEFAULT" and permits it to run 5 threads concurrently. Unless explicitly overridden at time of submission, the "DEFAULT" thread pool is where the online submissions automatically get directed to, so this should in most cases not be changed; if it is set to anything else, the online submissions may not be picked up. The number of threads, specified as "5" above, can be adjusted.

Starting the batch-scheduling daemon

The batch-scheduling daemon can be started as part of the application server, or in a standalone batch worker node. In either case, add the following property to enable the JVM to also be a scheduler:

com.splwg.batch.scheduler.daemon=true

Batch Submission using Thread Pool Worker

This step is necessary if your organization uses either Oracle Enterprise Taxation Management 's batch scheduler or you wish to submit ad-hoc batch jobs from the online application.

When using the Thread Pool Worker option you should have the following settings when you run configureEnv.sh / cmd:

```
Batch Server Enabled:           false
Batch Threads Number:           5
Batch Scheduler Daemon:         false
```

Starting the Tread Pool Worker on Unix

Once you have initialized an environment shell with splenviron.sh, the application threadpoolworker.sh should be executed as a background task.

```
nohup threadpoolworker.sh -p DEFAULT=5 -d Y
```

This will start a standalone threadpool worker process that offers 5 threads in threadpool DEFAULT ("-p DEFAULT=5") and hosts a scheduler daemon for online job submissions ("-d Y"). Threadpool DEFAULT is the default threadpool name that is used for jobs submitted from the online; if set to anything else, online submissions may not be picked up. The number of threads, specified as "5" here, can be adjusted.

The batch scheduler should be running as a background daemon under UNIX. To verify that it is running you can use a command similar to "ps -ef |grep threadpool".

Starting the Thread Pool Worker on Windows

```
threadpoolworker.cmd -p DEFAULT=5 -d Y
```

> Note: If the JAVA_HOME environment variable is set, the script can be launched from Windows Explorer.

This will start a standalone threadpool worker process that offers 5 threads in threadpool DEFAULT ("-p DEFAULT=5") and hosts a scheduler daemon for online job submissions ("-d Y"). Threadpool DEFAULT is the default threadpool name that is used for jobs submitted from the online; if set to anything else, online submissions may not be picked up. The number of threads, specified as "5" here, can be adjusted.

Refer to **Chapter 5: Installing the Oracle Utilities Application Framework** and to Running Batch Processes for more information.

Building Javadocs Indexes

The following script allows rebuilding the Javadocs Indexes in the appViewer java module. This is needed after Customer Modification's have been applied to an environment; this needs to be run only if the Customer Modification includes Java Code.

Windows:

```
%SPLEBASE%\bin\buildJavadocsIndex.cmd
```

UNIX:

```
ksh $SPLEBASE/bin/buildJavadocsIndex.sh
```

Appendix A

Known Issues with Version 2.2

The following known issues are present in the V2.2.0 "Generally Available" Release.

Online triggering of write-offs

Overdue events that create write-offs cannot be activated online. Overdue events can be activated as part of the overdue process monitor batch process. This issue is tracked as bug 8260153.

Error navigating into Account maintenance if no account defaults are specified

An error is encountered when navigating to the Account Maintenance page when account defaults are not specified on the Account tab of Installation Options. This issue is tracked as bug 8343075.

Error creating backdated obligation

An error will be returned when trying to save a new obligation if an obligation exists for the same tax role with a later obligation start date. This error will not be created as long as obligations are created in sequence within a tax role. This issue is tracked as 8263964.

Timeout algorithms cannot update assigned to do entries in batch

Timeout algorithms updating to do entries that have been assigned to users that are different from the user used to run the batch processes get the error "<user> is not assigned to work on To Do Entry <id>". This happens on the Overpayment Process Monitor (C1-OPMN) and Approval Request Monitor (Deferred) (C1-APRTR). These issues are tracked as bugs 8323060 and 8323114, respectively.

Incorrect adjustment type may be used for contributions

Posting an individual tax form from the base BO Individual Income EZ Tax Form creates the adjustment for contributions with the incorrect adjustment type if the adjustment type was not specified for that contribution type on the form type. This issue is tracked as bug 8277175.

Single waiver adjustments

Waivers are being reflected in a single adjustment instead of multiple ones matching calculated penalty and interest values. The dynamic credit allocation plug-in consequently calculates credit

allocation incorrectly and this manifests, for example, in the Credit Allocation Zone in Control Central. This issue is tracked as bug 8266122.

Payment transfers not using distribution rules

The payment transfer function is using Payment Transfer Events to determine how a payment should be distributed to obligations within an account. Transferred payments will be distributed to obligations based on age and priority instead of using distribution rules to specific entities such as forms, pay plans and targeted obligations. This issue is tracked as 8309772.

Account security on new portals

The following portals do not have account security incorporated into the data displayed in zones:

- Collection Case
- Overpayment Process
- Registration Form
- Tax Form
- Tax Role
- Waiver

This issue is tracked as bug 8303739.

Penalty and interest plug-ins limited to Java

A framework issue (TBD) prevents the use of any plug-in scripts on some of the algorithms used for Penalty and Interest calculation. The impact is that any custom scripts needed for penalty and interest processing should be written in Java until this issue is resolved. This issue is tracked as bugs 8344253 and 8344415 (Oracle Utilities Application Framework component).

Credit allocation errors

The 'Determine Detailed Balance' plug-in applies credits by debt category priority regardless of the FT effective dates. The impact is that credits are not applied at the point in time that they are effective. The dynamic credit allocation plug-in consequently calculates credit allocation incorrectly and this manifests, for example, in the Credit Allocation Zone in Control Central. This issue is tracked as bug 8280629.

Bill Route Type of POSTAL is required

The Account Business Object requires that Bill Route Type of POSTAL be defined. This issue is tracked as bug 8357366.

User Exits

User exits written in COBOL cannot be specified for Page, List and Search programs that have been converted to Java.

User exits executed for the action "Read" are not supported for objects that have been converted to Java. Note that this will not be supported in future releases.

Multiple Original Forms can be created

This issue is tracked as bug 8220418.

Overdue event incorrectly completes

An overdue event incorrectly completes the next time the monitor runs when the overdue process it belongs to was transferred to a new collection case. It checks the original collection case which, by then, is closed instead of checking the collection case that it has been transferred to. This issue is tracked as bug 8344245.

Unused algorithm C1-PI-PR-DDT causing errors in Config Lab of control tables

The supporting Java program for the unused algorithm and algorithm type Adjust Calc Periods for Due Dates (Do not use) - C1-PI-PR-DDT (these are not used for Oracle Enterprise Taxation Management V2.2.0) includes an extra and unnecessary declaration of a soft parameter that is not defined on the algorithm and algorithm type. This causes errors during the Config Lab processes that copy the control table data from Demo. This issue is tracked as bug 8325368.

Appendix B

System Program Upgrade Guide

This section highlights changes to base modules that may impact custom implementations. If you have customized modules, please read through this information to determine if there is any impact to your customizations.

Files Deprecated in V2.2.0

No COBOL programs or copybooks have been deprecated between V2.1.5 and V2.2.0.

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- Velocity

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