Oracle® Application Testing Suite

Release Notes

Release 12.4.0.1

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This document includes updated information for Oracle Application Testing Suite version 12.4.0.1. The information in this document is more up-to-date than that in the manuals. Many of the issues outlined in this document will be corrected in upcoming releases. If you have any questions or problems, please contact our support group at http://www.oracle.com/support/index.html.

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New Features and Updates in this Release

This version includes maintenance improvements to the existing features as well as new features outlined below.

Oracle Application Testing Suite 12.4.0.1 - New Features and Updates

- New EBS/Forms Module Oracle OpenScript EBS/Forms module includes support for Java Runtime Environment 1.6.0_41+ and JRE 1.7.0_14+. Note that E-Business Suite versions running on Jinitiator are not supported with this module. If your E-Business Suite version runs using Jinitiator, you should use Oracle Application Testing Suite version 12.3.0.x (or previous versions).
- Siebel OpenUI Function Library Oracle OpenScript includes a new function library for creating custom tests and advanced interactions with Siebel OpenUI applications.
- Support for Firefox 24 ESR browser Oracle OpenScript includes support for the Firefox 24.x ESR browser for record and playback on Windows and for playback on Linux.



- New feature to add tests to Test Set runs in Oracle Test Manager Oracle Test
 Manager includes feature that allows users to add tests to a Test Set that is being
 executed.
- New feature that allows users to manually complete/close a Test Set in Oracle
 Test Manager Oracle Test Manager now let's users to manually complete/close a
 Test Set Run.
- Updated Test Set Reports in Oracle Test Manager Oracle Test Manager includes additional test execution reporting at Test Set level.
- New browsers added for browser emulation in Oracle Load Testing Oracle Load Testing now includes new desktop and mobile browsers in order to emulate users with modern desktop and mobile web browsers.
- Updated JMX Data Source Support in Oracle Load Testing The JMX Data Source now supports SSL for Weblogic 10.3.4 and above (using the T3S protocol). SSL support is enabled by entering values for the Trust Store File, Trust Store Password, Key Store File and Key Store Password fields.

Note: In order to support Weblogic DemoTrust certificates (which are enabled by default in test environments), you need to add the following parameter to the JHP.commandline property of \DataCollector\properties\jagent_ service.properties.

-Dweblogic.security.TrustKeyStore=DemoTrust

DemoTrust certificates are NOT recommended for production systems.

System Requirements

Oracle Application Testing Suite has the following system requirements:

Oracle Functional Testing/OpenScript

Oracle Functional Testing's OpenScript scripting platform has the following system requirements:

- Operating System (32-bit and 64-bit versions): Windows Vista, Windows 2003, Windows 7, Windows 2008, Windows 2008 R2.
- Memory: Minimum 1 GB
- System: x86, 32-bit or 64-bit processor, 2.6 GHz or faster
- Disk Space: 4 GB minimum
- Browser: Internet Explorer 7.x, 8.x., 9.x; Firefox 3.5/3.6, 6.x, 10.x, 24.x; Chrome 27 to 31 (playback only).
- Java Runtime Environment: JRE 1.6 minimum, JRE 1.7.

Oracle Load Testing

Oracle Load Testing has the following system requirements:

 Operating System (32-bit and 64-bit versions): Windows Vista, Windows 2003, Windows 7, Windows 2008, Windows 2008 R2. Oracle Enterprise Linux 5.x 64, 6.x.
 Windows 2008 R2 is the minimum supported system for functional test-type scripts. Windows 7 is not supported as Windows 7 only allows the single primary user of the licensed computer to access a session of the computer.

- Memory: Minimum 2 GB.
- System: x86, 32-bit or 64-bit processor, 2.6 GHz or faster
- Disk Space: 10 GB minimum free (at least 3 GB free on the system drive)
- Browser: Internet Explorer 7.x, 8.x, 9.x, Firefox 10.x, 17.x., 24.x,
- Database: Oracle EE 10g or 11g, XE 10g
- Application Server: Oracle WebLogic 11g (10.3.5.0). Oracle Application Testing Suite requires the standard WebLogic Server installation (which includes jrocket jdk.). It does not support generic versions of WebLogic Server installation (such as those that use wls1035_generic.jar).
- Oracle Load Testing Agent also supported on Linux 32-bit & 64-bit, in addition to Windows 32-bit and 64-bit operating systems listed above

Note: These are minimum requirements only and actual requirements for the Oracle Load Testing Server will vary depending on the size and configuration of your load test. If you are running larger load tests, of greater than 1000 Virtual Users, you should consider deploying Oracle Load Testing on a faster server class machine with additional RAM recommended.

Note: Oracle recommends running the Oracle Load Testing Server and Agents on separate systems for production load testing. The amount of memory required on the Oracle Load Testing Agent systems may increase based on the number of Virtual Users that will be assigned to run on each Agent. For more information, visit the QA/Testing Technology Center on Oracle Technology Network or contact your Oracle representative.

Oracle Test Manager

Oracle Test Manager has the following system requirements:

- Operating System (32-bit and 64-bit versions): Windows Vista, Windows 2003,
 Windows 7, Windows 2008, Windows 2008 R2. Oracle Enterprise Linux 5.x, 6.x.
- Memory: Minimum 2 GB.
- System: x86, 32-bit or 64-bit processor, 2.6 GHz or faster
- Disk Space: 10 GB minimum free (at least 3 GB free on the system drive)
- Browser: Internet Explorer 7.x, 8.x, 9.x, Firefox 10.x, 17.x., 24.x.
- Database: Oracle EE 10g or 11g, XE 10g
- Application Server: Oracle WebLogic 11g (10.3.5.0). Oracle Application Testing Suite requires the standard WebLogic Server installation (which includes jrocket jdk.). It does not support generic versions of WebLogic Server installation (such as those that use wls1035_generic.jar).

Note: These are minimum requirements only and actual requirements for Oracle Test Manager will vary depending on the quantity of test assets stored and number of concurrent users accessing the application. If you have a large quantity of test cases, requirements or issues stored and/or are deploying Oracle Test Manager for a team greater than 10 users, you should consider deploying Oracle Test Manager on a faster server class machine with additional RAM recommended.

Additional Notes

The following are additional notes about system requirements:

- The ATS installer for Windows downloads can automatically install and configure an Oracle 10g Express Edition (XE) database for use with Oracle Load Testing and Oracle Test Manager. Although this is useful for demos, for production usage switching to Oracle's 11g Enterprise Edition database is highly recommended. Oracle 11g Standard Edition and Oracle 10g EE or SE are also supported.
- For Linux installations, the Oracle 10g Express Edition (XE) database or Oracle's 11g Enterprise Edition database must be downloaded and installed separately before the ATS download and install.
- System memory requirements do not take into account other processes that may be running and using memory on your system, reducing free uncommitted memory available.
- When installed on the same machine, Oracle Load Testing and Oracle Test
 Manager will run on the same server and use shared system resources. Oracle
 Functional Test/OpenScript is a separate application that have its own memory
 and CPU requirements.
- Oracle Application Testing Suite cannot be installed on a 64-bit WebLogic on MS Windows. The Oracle Application Testing Suite products will run in 32-bit compatibility mode when installed on 64-bit MS Windows operating systems. It is possible for Oracle Application Testing Suite to be installed on an existing WebLogic server. However, if the pre-installed WebLogic server is JRockit plus WebLogic (64-bit) environment, some functions in Oracle Application Testing Suite will not work properly.
- The legacy Oracle Functional Testing, VB-based scripting platform and associated components (such as Job Scheduler) are no longer included with the ATS installer starting with version 9.2. Customers that still require this product should use ATS 9.1 or older versions supported under Oracle's Lifetime Support Policy.

Installing the Oracle Application Testing Suite

This section explains the installation procedures for the Oracle Application Testing Suite.

Caution: The machines where the OpenScript product is installed should be strictly used for testing. The security features of the browsers have been disabled on this machine to enable recording and playback operations. The browsers cannot be used for secure browsing.

Note: The user should have privileges to create, remove, and change files in all subdirectories of JREs with JRE 1.6.45+ and from 7u21 to 7u45 (excluding).

For example, C:\program files (x86)\java\jre7 and its subdirectory or subdirectories.

Installing the Applications on Windows Machines

You can install Oracle Application Testing Suite from the product download zip file.

From the Oracle Web site:

http://www.oracle.com/technetwork/oem/app-test/index.html

- 1. Select and download the Oracle Application Testing Suite zip file(s) from the web site and save it to a temporary directory on your hard disk.
 - oats-full-version.zip: Full installation plus all prerequisites (Oracle Application Testing Suite, Product documentation PDF files, WebLogic Server 11gR1 (10.3.3) developer edition, Oracle Database Express Edition 10.3.2.4, Oracle Instant Client 11.1.0.7.0, .NET Framework 2.0, Eclipse 3.4.1, Sun JRE 1.6.0_07, Oracle JRockit 4.0.0.1.6.0.R28)
 - oats-micro-version.zip: Oracle Application Testing Suite and product documentation PDF files without prerequisites. For new installations or upgrading a previous release. If upgrading from a version older than 9.1, use the Complete Install.
 - ose-quick-install-version.zip: Oracle OpenScript only installation.
 - oats-docs-version.zip: Oracle Application Testing Suite documentation PDF files.
- 2. Unzip the downloaded file and run the setup.bat file for Oracle Application Testing Suite. Run install-openscript.bat to run the OpenScript only installation. The OpenScript only installer does not support "upgrade" installation (i.e. installing "over" a previous install). In order to reinstall OpenScript only, you must first uninstall any existing OpenScript installation. See Section, "Uninstalling the Applications from Windows Machines" and Section, "Step 4: Remove Environment Variable and Browser Properties File" for additional information.

Note: Important: Windows Vista, 2008 or Windows 7 users, select **Run as Administrator** from the right-click shortcut menu. This is required process for the Operating Systems that have User Account Control (UAC) enabled.

3. Follow the setup instructions to install the Oracle Application Testing Suite or Oracle OpenScript only application.

During the installation for Oracle Application Testing Suite you will be asked to provide a master password. *Remember this password*. The master password specified during installation is used to set all of the following user passwords:

- Oracle Test Manager users "default" and "administrator".
- Oracle Load Testing users "default" and "administrator".

- User "JMSAdmin" used for Oracle Load Testing agent to controller authentication.
- User "oats" for Weblogic Server this is a Weblogic superuser.
- User "oats-agent" in Weblogic Server for JMS communication between agent and controller - this is *not* a Weblogic superuser.
- Database users "oats", "olt", "otm".
- Database users (XE's defaults) "system" or "sys".

Note: When installing Oracle Application Testing Suite server components on a machine that:

- has no previous version of Oracle Application Testing Suite installed, AND
- 2. has Oracle Enterprise Edition database installed,

make sure to choose the "Custom Installation" option and specify the connection credentials for your Oracle Enterprise Edition database. If you choose "Complete Installation", Oracle Application Testing Suite will install Oracle XE database, which may not run properly alongside Oracle Enterprise Edition database on the same machine.

Manually Configuring the Installation

The above installation procedure for Oracle Application Testing Suite setup.bat in oats-full-*version*.zip installs the applications, database, and Web server. If during the installation procedure you select the **Do nothing**, **I will configure Oracle Application Testing Suite later (advanced)** option you will need to manually create the database schema.

If there is no database installed and you will not be using a remote database, you will need to install Oracle XE or EE on the local machine. Install an Oracle Database or acquire the hostname, port, instance, and credentials for an existing one.

If WebLogic Server is not installed on the local machine, you must download Weblogic 11gR1P2 (10.3.5) from download.oracle.com and install it. Install Weblogic 11gR1P2 (10.3.5) on your local machine or acquire the location on your local machine of a Weblogic instance of the same version.

To manually configure Weblogic and create the database schema:

1. Create the following environment variables:

WL_HOME=The location of your Weblogic home (typically C:\Oracle\Middleware\wls if it was installed with default options).

MW_HOME=The location of your Weblogic root folder (typically C:\Oracle\Middleware if it was installed with default options).

WLS_PW=Your master password. This will be used to set your admin password for Weblogic, as well as to create your Default and Administrator accounts in Oracle Load Testing and Oracle Test Manager.

DB_HOST=The location of your database.

DB_NAME=The name of the database that Oracle Application Testing Suite will use. For XE installations, the name is typically XE. For EE installation this will depend on your installation settings.

DB_PORT=The port of your database (typically 1521).

DB_USER=The admin user of your database (typically "system"),

DB_PASS=The password of the database user.

```
DB_URL=jdbc:oracle:thin:@//<hostname>:<port>/<servicename>
```

- **2.** Run <installdir>\bin\install.bat. This will delete your previous OATS domain, if any, and recreate it. (If the install is fresh you do not need to run this .bat file.)
- **3.** Change to directory <code>%OATS_HOME%\bin</code> and issue the following commands (in order):

```
initConfig
dbsetup
config_ds
unpack
storeUser
installSvc
restartSvc "OracleATSServer"
deploy %OATS_HOME%\install\oats.ear
config_sec
```

4. Validate your installation by going to http://localhost:8088/olt and verify that you can successfully login (i.e. with credentials Default/master password) and use the product.

Uninstalling the Applications from Windows Machines

To uninstall the Oracle Application Testing Suite applications:

- Select Uninstall Oracle Application Testing Suite from the Oracle Application Testing Suite Start menu.
- **2.** Select OATS in the tree.
- 3. Click Remove.

To uninstall the Oracle OpenScript only application:

1. Select **Uninstall OpenScript** from the **Tools** submenu of the Oracle Application Testing Suite Start menu.

See Section, "Preparing for a "Clean" Installation" for additional information.

Installing the Applications on Linux Machines

Oracle Application Testing Suite server components (Oracle Load Test/Oracle Test Manager) and Agent components (Oracle Load Test agent/Data Collector) can be installed on Linux via a separate installer; however Oracle OpenScript is Windows only. Oracle Application Testing Suite components have been tested with Oracle Enterprise Linux 5.1 64 bit, 5.2 64 bit, 4u8 64 bit. Note that Data Sources (Perfmon, Ping, COM+, and the SSH version of Virtual Agent) cannot be used on a Linux Data Collector.

The Oracle Application Testing Suite Linux installer is based on the Oracle Universal Installer (OUI) which requires UI based access. To install the Oracle Application Testing Suite server components on Linux you will need to access XTerm. XTerm, most typically, can be accessed over VNC.

Installing Oracle XE or EE Database

The Oracle Application Testing Suite installer requires a working instance of Oracle XE or Oracle EE database. If you have not installed and configured an Oracle XE or Oracle EE database, install and configure an Oracle XE or EE database before installing the Oracle Application Testing Suite server components.

Note: See the *Oracle® Database Installation Guide <Release> for Linux* in the Oracle Database Documentation Library for additional information about installing Oracle EE databases.

 $\label{lem:http://www.oracle.com/technetwork/indexes/documentation/index.html$

To install an Oracle XE database:

1. Open a terminal window and install XE database, as follows:

```
sudo rpm -ivh oracle-xe-univ-10.2.0.1-1.0.i386.rpm
```

A progress bar displays during the installation which is followed by the final message: You must run '/etc/init.d/oracle-xe configure' as the root user to configure the database.

2. Configure the database, as follows:

```
sudo /etc/init.d/oracle-xe configure
```

- **3.** When prompted, enter a password for database accounts. Enter: oracle.
- **4.** For the remainder of the configuration, click **Enter** to accept the default values for most common use-cases.

Installing Oracle Application Testing Suite Components

From the Oracle Web site:

http://www.oracle.com/technetwork/oem/app-test/index.html

- 1. Select and download the Oracle Application Testing Suite zip file(s) from the web site and save it to a temporary directory on your hard disk.
 - oats-docs-version.zip: Oracle Application Testing Suite documentation PDF files.
 - oats-linux64-full-*version*.zip: Full Linux installation plus WebLogic Server for 64-Bit machines.
 - oats-linux64-micro-version.zip: Linux installation without prerequisites for 64-Bit machines.
 - oats-linux-full-*version*.zip: Full Linux installation plus Weblogic Server for 32-Bit machines.
 - oats-linux-micro-version.zip: Linux installation without prerequisites for 32-Bit machines.
- **2.** Be sure to install an XE or Oracle EE database before the ATS install. See Section , "Installing Oracle XE or EE Database".
- **3.** Unzip the downloaded file for the Oracle Application Testing Suite.
- **4.** Enter the installation folder where you unzipped the download file.

5. Set appropriate permissions for the installation shell script to execute, as follows:

```
chmod u+rwx,g+rx,o+x setup.sh
```

6. Edit the installation Shell script setup. sh and change ORACLE_HOME to any designated location under your scratch folder (for example:

```
/scratch/<myFolder>/oats12, as follows:
```

```
#!/bin/bash
INSTALL_DIR="'dirname $0'" cd "$INSTALL_DIR" INSTALL_DIR="'pwd'"
   cd - INSTALL_DIR=$( echo "$INSTALL_DIR" | sed -e 's/ /\ /g' )

##Adding Chmod to add execute permissions for files.

chmod -R 777 $INSTALL_DIR/ 1> /dev/null 2>&1 $INSTALL_DIR/oui/bin/runInstaller
   -force -noconsole ORACLE_HOME="/scratch/myFolder/oats12"
   ORACLE_HOME_NAME="OATS" SHOW_EXIT_CONFIRMATION=false
   SHOW_SUMMARY_PAGE=true INSTALL_ROOT=$INSTALL_DIR

##COMPONENT_LANGUAGES={"$LOCALE"} SELECTED_LANGUAGES={"$LOCALE"}
```

7. Run the setup. sh file to start the GUI installation for the Oracle Application Testing Suite.

```
sh setup.sh
```

You cannot install Oracle Application Testing Suite as root, so do not use sudo sh setup.sh.

8. Follow the setup instructions to install the Oracle Application Testing Suite.

During the installation you will be asked to provide a master password. *Remember this password*. The master password specified during installation is used to set all of the following user passwords:

- Oracle Test Manager users "default" and "administrator".
- Oracle Load Testing users "default" and "administrator".
- User "JMSAdmin" used for Oracle Load Testing agent to controller authentication.
- User "oats" for Weblogic Server this is a Weblogic superuser.
- User "oats-agent" in Weblogic Server for JMS communication between agent and controller - this is *not* a Weblogic superuser.
- Database users "oats", "olt", "otm".
- Database users (XE's defaults) "system" or "sys".
- **9.** Specify Inventory Directory and credentials, as follows:

```
Enter full path of inventory directory: /scratch/<myFolder>/oraInventory
Specify Operating System group name: dba
```

- 10. Click Next.
- **11.** Select Installation Type: Complete and click **Next**.
- **12.** Specify Home Details, as follows:

Name: Home1

Path: /scratch/<myFolder>/oats12

- 13. Click Next.
- **14.** Enter Install Location, as follows:

Folder: /scratch/<myFolder>/oracleats

- 15. Click Next.
- **16.** Set the Master Password by entering and confirming the password, for example:

```
Enter password: oracle123
Confirm password: oracle123
```

- 17. Click Next.
- **18.** Specify Oracle Database Installation, as follows:

Configure an existing Oracle XE or EE Database

- 19. Click Next.
- **20.** Specify Oracle Database Information, as follows:

```
DB Hostname: localhost
Port: 1521
Service Name: XE
Db User: system
DB Password: oracle
```

- 21. Click Next.
- **22.** Review the Summary details and click Install. The installation will continue automated install until you see the following message:

```
Execute Configuration Scripts
The following configuration scripts need to be executed as the "root" user
Scripts to be executed:
1. /scratch/<myFolder>/oraInventory/orainstRoot.sh
2. /scratch/<myFolder>/oats12/root.sh
```

23. Open a terminal window and execute the configuration scripts, as follows:.

```
Script 1: orainstRoot.sh
sudo sh /scratch/<myFolder>/oraInventory/orainstRoot.sh
Script 2: root.sh
sudo sh /scratch/<myFolder>/oats12/root.sh
```

24. Enter the Oracle Application Testing Suite Agent Manager password: (the same as the Master installation password entered and confirmed in the previous step above).

The script execution will complete with following confirmation messages: "OATS Agent Manager (OracleATSAgent) service is now running!" "Oracle Application Testing Suite Linux Agent is now installed!"

25. Exit the terminal window and click **OK** in the Execute Configuration Script pane of the installation GUI.

- **26.** Click **Exit** on the End of Installation pane to complete the installation.
- **27.** Navigate to http://<linux-host-name>:8088/ to start using the OATS application.

Starting the Applications on Linux Machines

This section lists how to start Oracle Application Testing Suite applications and utilities on Linux machines. It also lists how to restart and stop the application service.

To start the Oracle Application Testing Suite Administrator:

```
http://<machine>:8088/admin or http://localhost:8088/admin
```

To start the Oracle Test Manager application:

```
http://<machine>:8088/otm or http://localhost:8088/otm
```

To start the Oracle Load Testing application:

```
http://<machine>:8088/olt or http://localhost:8088/olt
```

To start the Database Configuration utility:

```
<installdir>/bin/DbConfig.sh
```

To start the Oracle Load Testing Agent Authentication Manager utility:

```
<installdir>/jdk/jre/bin/java -jar <installdir>/agentmanager/AMAuthManager.jar
```

To restart the Oracle Application Testing Suite service:

```
<installdir>/bin/restartSvc.sh [OracleATSServer|OracleATSAgent]
```

To stop the Oracle Application Testing Suite service:

```
<installdir>/bin/stopSvc.sh [OracleATSServer|OracleATSAgent]
```

To create a support package for troubleshooting purposes (OATSSupport.zip):

```
<installdir>/bin/oats_support.sh
```

Uninstalling the Applications from Linux Machines

To uninstall the Oracle Application Testing Suite server components or remote agent:

1. Run the setup. sh file to start the GUI installation for the Oracle Application Testing Suite.

```
sh setup.sh
```

You cannot uninstall Oracle Application Testing Suite as root, so do not use sudo sh setup.sh.

2. Follow the screen instructions for uninstalling the server components or remote agent.

Installing the Oracle Load Testing Remote Agent

Oracle Load Testing allows you to distribute your Virtual Users to run from remote Agent machines. The Oracle Load Testing Server will connect to Oracle Load Testing Agent systems to start and run your Virtual Users on those machines. The Oracle Application Testing Suite Remote Agent is a component of the Oracle Application

Testing Suite installation that enables Virtual Users to be distributed to these Agent systems. Users can either install the full Oracle Application Testing Suite installation or just the Remote Agent install component on their Agent machines to enable this functionality.

Installing the Remote Agent

To install the Remote agent:

- . Download the appropriate .zip file from the download Web site:
 - For Windows agents, use oats-full-version.zip and run setup.bat.
 - For Linux agents, use oats-linux-full-version.zip for 32-bit or oats-linux64-full-version.zip for 64-bit and run setup.sh. See Section, "Installing the Applications on Linux Machines" for additional information.
- 2. Unzip the downloaded file and run the installation file.
- **3.** Follow the setup instructions to install just the Remote Agent software.
- **4.** Verify network access from the Controller workstation to the Agent workstations and configure the Agent Workstations as explained in the following section.

Configure Remote Agent Service Login

To specify the user login for the Oracle Load Testing Agent Service, open the Services control panel on the Agent machine and change the login credentials for the "Oracle Load Testing Agent Service". By default, the Oracle Load Testing Agent Service will run under the Local System account.

Verify Network Access to Agent Systems

Once you have the Oracle Load Testing Server and Agent software installed on the individual systems, you should verify network access between the Oracle Load Testing Server system and each Remote Agent system. This section provides basic tips and techniques to make sure the Oracle Load Testing Server system can successfully communicate with each Remote Agent system.

- Make sure that you have the Oracle Load Testing Agent software loaded on the Agent system(s) and that it is the same version as the Oracle Application Testing Suite software that is loaded on the Oracle Load Testing Server system. The systems you plan to use as Agents must have either the Oracle Load Testing Agent software or the full Oracle Application Testing Suite installed to work as agents.
- Make sure you can successfully Ping all of the Agent systems from the Oracle Load Testing Server system. The machine names you use to Ping the systems are the same names that you will specify for the Agent systems in the Oracle Load Testing server. You can also use the IP addresses of the agent systems. If you cannot successfully Ping the Agent systems, contact your network administrator to resolve the issue. If you cannot Ping the Agent systems from the Oracle Load Testing Server system, you will not be able to run the Agents from the server.
- Make sure that the same user is logged in on both the Oracle Load Testing server system and all of the Agent systems. All of the Agent systems must have a user logged in to be controlled by the Oracle Load Testing Server system. You may be able to log in as a different user on the Agent systems as long as the user login has the same administrative privileges as the user logged in on the server system.
- From the server system, try mapping a drive on each of the Agent systems using Windows Explorer. Depending on how your network is setup, the server system

may not be allowed to start up processes on the Agent systems. The easiest way around this is to map a drive to the Agent system in order to authenticate with Windows.

In the Oracle Load Testing server add a Visual Script to the Scenario Profiles list. Enter the machine name or IP address of the Agent system where you want to run the Visual Script into the Systems Manager and select that machine in the Systems field on the Build Scenario tab of Oracle Load Testing.

Preparing for a "Clean" Installation

In some cases, you may want to prepare a system for "Clean" installation of the Oracle Application Testing Suite product. This may be required in the following cases:

- There is a previous beta version of the Oracle Application Testing Suite product installed on the system.
- It is necessary to downgrade the product from a newer version.
- An installation failure occurred for some reason and it is necessary to clean the environment to a fresh start.

The following sections provide step-by-step instructions to perform a clean installation of the Oracle Application Testing Suite product on your system.

Make sure to backup all scripts and databases before proceeding. See Section , "Installing over beta versions or earlier releases of Oracle Application Testing Suite" for additional information.

Step 1: Uninstall Oracle Application Testing Suite Products

To uninstall Oracle Application Testing Suite product:

- Run the Oracle Application Testing Suite Setup.bat file to launch "Oracle Universal Installer".
- 2. Click **Deinstall Products**. The Inventory window opens.
- **3.** Expand the Oracle Homes tree and select the "OATS" checkbox.
- **4.** Click **Remove**. The Remove window opens and starts the deinstallation procedure.
- **5.** Wait for the Remove window to automatically dismiss itself. After the successful deinstalltion, the Inventory window may show "There are no installed products" if there no other Oracle products installed.
- **6.** Close the Inventory window.
- 7. Click Cancel to close the Oracle Universal Installer.

Step 2: Uninstall Oracle XE Database

To uninstall Oracle XE Database:

- 1. Select Control Panel from the **Start** menu.
- 2. Open Add/Remove Programs or Program and Features depending upon your Windows version.
- **3.** Find and select **Oracle Database 10g Express Edition**.
- **4.** Click the Remove or the Uninstall/Change button from the tool bar, or double-click the item to launch the InstallSheild wizard.

- **5.** Click **Yes** in the dialog box to remove the database.
- **6.** Wait for the uninstallation to complete successfully.
- 7. Click Finish to close the InstallShield wizard.

Step 3: Remove or Rename Installation Folders

To remove or rename installation folders:

- 1. Backup OpenScript scripts and script asset files in repositories or folders under the installation directory (in *installdir\workspace*! directories or *installdir\directoryname* directories).
- **2.** Backup OpenScript scripts and script asset files in repositories under the installation directory (in *installdir**workspace* directories).
- **3.** Remove or rename the Oracle Application Testing Suite installation directory (the default is C:\OracleATS).
- **4.** Remove or rename the directory: C:\Documents and Settings\username\osworkspace (depending upon your Operating System, it may be similar to: C:\Users\username\osworkspace).
- **5.** Remove or rename the directory: C:\Program Files\Oracle\Inventory (depending on your Operating System, it may be like: C:\Program Files (x86)\Oracle\Inventory).
- **6.** Remove or rename the file: C:\Windows\rsw.ini

Step 4: Remove Environment Variable and Browser Properties File

If you plan to perform an OpenScript only install after removing the Oracle Application Testing Suite applications, you must also remove the OATS_HOME environment variable and the browserHelper.properties file to prepare the machine for the installation.

To remove the OATS_HOME environment variable:

- 1. Open System settings in Control Panel.
- **2.** Open System Properties. (depending upon Windows version, select Properties or Change settings).
- 3. Click Environment Variables on the Advanced tab.
- Select the OATS_HOME variable and click Delete.

To remove the browserHelper.properties file:

- 1. Open Windows Explorer.
- 2. Navigate to %APPDATA%\Oracle\Application Testing Suite\browserHelper.properties file and delete the file.

Step 5: Remove the Services (Optional)

To remove Oracle Application Testing Suite services:

- 1. Select **Run** from the **Start** menu.
- **2.** Type cmd and click **OK**.
- **3.** Type the command: sc delete *servicename*, where *servicename* is each of the following:

- OracleATSAgent
- OracleATSServer
- OracleATSHelper

If the message "The specified services does not exist as an installed services" is returned from the program, the service was successfully removed by the previous steps.

Step 6: Remove the Registry Keys (Optional)

To remove Oracle Application Testing Suite Registry keys:

- 1. Select Run from the Start menu.
- 2. Type regedit and click **OK**.
- **3.** Delete the following Registry keys using the Registry Editor:
 - HKEY_LOCAL_
 MACHINE\SYSTEM\CurrentControlSet\Services\OracleATSServer
 - HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\OracleATSAgent
 - HKEY_LOCAL_ MACHINE\SYSTEM\CurrentControlSet\Services\OracleATSHelper

If you do not find the keys in the Registry, they were successfully removed by the previous steps. Note: The keys may be found in the different location depends on your Operating System (search by the key to find the correct location).

Step 6: Restart the System (Optional)

While not required, it is a best practice to restart the system after uninstalling applications.

Select Shutdown from the Start menu, then select Restart.

Step 7: Install Oracle Application Testing Suite

To install Oracle Application Testing Suite:

- 1. Make sure the installing user has administrator privilege on the system.
- 2. Unzip the oats-full-version.zip product download file in a temporary directory.
- **3.** Using Windows Explorer, double-click the setup.bat to start the Oracle Universal Installer. See Section, "Installing the Applications on Windows Machines" for additional information.

Note: Important: Windows Vista, 2008 or Windows 7 users, select **Run as Administrator** from the right-click shortcut menu. This is required process for the Operating Systems that have User Account Control (UAC) enabled.

4. Follow the setup instructions to install the Oracle Application Testing Suite.

Installing over beta versions or earlier releases of Oracle Application Testing Suite

If you have a beta or Early Access version of the Oracle Application Testing Suite installed, you should un-install the earlier release of the Oracle Application Testing Suite before installing this version.

If you are installing over a previous version of Oracle Application Testing Suite, you may consider making backup copies of the following before installing this version:

- OpenScript scripts and script asset files in repositories or folders under the installation directory (in *installdir*\workspace! directories or *installdir*\directoryname directories).
- Script and script asset files in repositories under the installation directory (in installdir\workspace directories).
- Oracle Load Testing reports database.
- Oracle Test Manager database.

If you are installing or upgrading over a previous version of OpenScript, you should close any open scripts in the earlier version before upgrading.

Installing OLT/OTM after OpenScript Only Install

The Oracle Application Testing Suite 12.4.0.1 component based installer will install Oracle Load Testing and Oracle Test Manager over installed OpenScript only installations (of either version or pre 12.4.0.1). The installer will upgrade the OpenScript installation and will install other Oracle Application Testing Suite components.

Tutorial and Documentation for the Oracle Application Testing Suite

The Oracle Application Testing Suite includes product documentation in Adobe Acrobat .PDF format and online help for each application and utility. The documentation includes electronic versions of the Getting Started Guide, OpenScript User's Guide, Oracle Load Testing User's Guide, Oracle Test Manager User's Guide and Release Notes. The PDF files are installed to the *<installDir>/docs* directory.

You need the Adobe® Acrobat® Reader v4 (or newer) to open and view the documents. You can download the reader from the Adobe web site at http://get.adobe.com/reader/.

All of the components of the Oracle Application Testing Suite include comprehensive online Help. You can access the online help using the Help menu options inside of each product.

Known Problems, Limitations and Workarounds

This section lists known issues and workaround solutions for the components in the Oracle Application Testing Suite.

Note: On Windows 7/Vista (UAC systems), it is necessary to run commands from an elevated command line in order to restart services. If you try to run it from the **Start** menu, you will see the following errors in the cmd window:

System error 5 has occurred. Access is denied.

Run services.msc from the command line and restart the services from there. Windows 7/Vista (UAC systems) require administrator privileges to run commands from an elevated command line in order to stop and restart services.

Oracle Application Testing Suite

The following are known issues and workaround solutions for Oracle Application Testing Suite.

■ **Problem**: Internet Explorer 8 browser incompatibilities related to Cumulative Security Update for Internet Explorer 974455 (patch version 8.0.7600.16385).

Resolution: Apply the browser updates specified in the Microsoft support article: http://support.microsoft.com/kb/976749.

Problem: Non-administrator user experiences problems using Internet Explorer 9 in Oracle Load Testing or Oracle Test Manager.

Resolution: Non-administrator users should disable protected mode if using Internet Explorer 9.

- 1. Close Oracle Application Testing Suite applications.
- **2.** Select **Internet Options** from the **Tools** menu in IE9.
- **3.** Select the **Security** tab.
- 4. Select Local Intranet.
- **5.** Select the **Enable Protected Mode** checkbox.
- 6. Click OK.
- **7.** Restart IE9/Oracle Application Testing Suite applications.
- **Problem**: If the Oracle Application Testing Suite Application Service does not start and the log file *<installdir>*\oats\servers\AdminServer\logs\AdminServer.log contains the following error:

weblogic.store.PersistentStoreException: [Store:280073]The file store "WLS_DIAGNOSTICS" could not be opened because it contained a file with the invalid version 1. A file of version 2 was expected.

Resolution: Delete the .DAT file in:

<installdir>\oats\servers\AdminServer\data\store\diagnostics\ and then restart
the server.

The behavior may occur when starting Oracle Application Testing Suite Application Service and the service is stays in starting mode even after the restarting service command window disappears. This condition may happen when the Weblogic (WLS) service is stopped abruptly - either from a machine reboot or the process is stopped for some reason.

■ **Problem**: In some cases, the Oracle Universal Installer (OUI) hangs after installing the Oracle Application Testing Suite. If this situation occurs, you can verify the installation by checking the installation log (typically C:\Program Files\Oracle\inventory\logs\installActions-xxxx.log) for a "OATS installed successfully." entry.

Resolution: Use the Windows Task Manager, Processes tab to end all running cmd. exe processes and, if necessary, end the OUI application process in Task Manager.

■ **Problem**: After you install, you can't login to Oracle Load Testing, Oracle Test Manager, Oracle Administrator, etc.

Resolution: During install, you will be prompted for a default password to use in the various OATS products where passwords may be required. It's important that you remember or write down this password as it will be needed to login to these applications (username will typically be "default" or "administrator"). If you don't remember the password, you will have to re-run the installer and establish a new default password. The passwords can be changed and new user accounts added through the Administrator after install.

Problem: Installation on Japanese systems with existing Oracle database.

Resolution: In cases where installing Oracle Application Testing Suite on a Japanese system with the option to use an existing Oracle database, you will need to add a system environment variable NLS_LANG with value of Japanese_ Japan.JA16SJIS and restart the system to apply. If the variable already exists with different value on the system, it's not recommended to install ATS on the system because the change will affect other applications which use Oracle database.

Oracle Load Testing

The following are known issues and workaround solutions for Oracle Load Testing.

■ **Problem**: Siebel Functional Test script playback halts on Auto Fix dialog box waiting for user interaction causing script failure.

Resolution: Verify the correct version of Java is installed. Workaround is to disable the "Auto fix" dialog box from appearing in the Seibel application, as follows:

- **1.** Log into the Siebel application.
- **2.** Site Map (globe icon in the upper right corner).
- 3. Select Administration then Server Configuration.
- 4. Select Component Definitions.
- **5.** Select **Query** (for the top grid).
- **6.** Search for SCCObjMgr* in the **Alias** field (assuming the Siebel application is CallCenter).
- **7.** Select **Query** in the bottom grid.
- 8. Search for the EnableClientHealthCheck parameter.
- **9.** Set value to FALSE.
- 10. Restart the Siebel service.
- Problem: Database ServerStats not working on non-US systems.

Resolution: In <installdir>\DataCollector\properties, save a backup of the jagent_service.properties file.

Open the jagent_service.properties file and find the line:

JHP.commandline = -Xmx1024M -Dsun.java2d.noddraw=true -cp "\${JHP.classpath}"
-Dsun.net.inetaddr.ttl="0" oracle.oats.dc.fw.jhp.JHPmain \${JHP.server} -logsize
2000000 -logparts 2 "\${JHP.installDir}\\DataCollector\\properties
agents.properties"

and change it to:

```
JHP.commandline = -Xmx1024M -Duser.language=en -Duser.country=US
-Dsun.java2d.noddraw=true -cp "${JHP.classpath}" -Dsun.net.inetaddr.ttl="0"
oracle.oats.dc.fw.jhp.JHPmain ${JHP.server} -logsize 2000000 -logparts 2
"${JHP.installDir}\\DataCollector\\properties agents.properties"
```

Save the file and restart the agent starter service.

■ **Problem**: Microsoft Excel Graphs may not be generated on Windows 2008 R2 machines. If a user tries to export a graph in Oracle Load Testing to and XLS file, it may not generate if the system is a Windows 2008 R2 machine, even with MS Office 2007 installed. The error in the wls_oats.log file is:

```
error: org.jawin.COMException 800a03ec: null
```

Resolution: Workaround is to create a folder named "Desktop" (without quotes) in the following two locations:

```
C:\Windows\System32\config\systemprofile
C:\Windows\SysWOW64\config\systemprofile
```

 Problem: Data Collector being forced to authenticate as Guest, no matter what credentials are used causing the error Logon failure: unknown user name or bad password.

Resolution: Change the machine's local security policy to "Classic" to be able to discover Perfmon counters using the local account (Administrator). See the following for additional information:

```
http://msdn.microsoft.com/en-us/library/ek2256kk.aspx
```

Problem: Load tests on agent machines running Windows XP or Windows 2003
may experience TCP port exhaustion during load testing. When too many TCP
ports are opened on the agent machine, virtual users may fail with errors such as:

```
java.net.SocketException: No buffer space available (maximum connections
reached?)
```

and

The attempt to connect to the server XXXXX on port NNNN failed. Comparable WinInet error code: error 12029: ERROR_INTERNET_CANNOT_CONNECT. Caused by: java.net.BindException occurred. Error Message: Address already in use: connect

Resolution: By default, Windows XP and Windows 2003 only allow 5000 TCP ports. This number should be increased according to the steps here:

```
http://msdn.microsoft.com/en-us/library/aa560610(v=bts.20).aspx
```

In Windows Vista and Windows Server 2008, the default port range is increased from 5,000 to about 65,000 ports: http://support.microsoft.com/kb/929851/

■ **Problem**: If a Data Collector process (olt-dc-java-agent.exe) was running and you restart the Oracle Load Testing server and attempt to do something with ServerStats on the server (start a metric, for instance), it will start a second Data Collector process that will not function properly because of the lock established by the first process.

Problem: If your script fails to playback successfully in Oracle Load Testing due to Windows authentication or other user permissions related issues with your application, this may be due to the login authentication of the Oracle Load Testing Agent Service. The Oracle Load Testing Agent Service which runs all the Virtual Users on a given Agent system will by default be installed to run under the Local System account. This may cause issues for certain applications if they block access to this account.

Resolution: To address this, open the Oracle Load Testing Agent Service in the Services panel and change the login to run under a specific user with appropriate application permissions.

- When using the SNMP data source, new SNMP MIBs that users specify are uploaded to the Oracle Load Testing Server by default and can be accessed only through the Local Oracle Load Testing Data Collector running on that Server. Remote Oracle Load Testing Data Collectors cannot access these MIBs and users need to copy those over manually.
- Problem: To use the JMX Data Source, you may need to manually copy the server-specific class files to the <installdir>\DataCollector\classes directory on the Data Collector machine. These class files are required for each J2EE Application supported server. The jar files should be same version as the J2EE Application Server. You should get the class files from your Application Server installation. The list of required jar files is contained in the Oracle Load Testing "agents.properties" file located in <installdir>\DataCollector\properties.

Resolution: To do JMX Discovery on WebLogic 10.3.3, doing the following:

- **1.** Copy *<installdir>*\lib\wlfullclient.jar to *<installdir>*\DataCollector\classes\weblogic
- **2.** Log in to Oracle Load Testing.
- 3. Select **Metrics** from the **ServerStats** menu then select **New**.
- **4.** Select the JMX Data Source then click **Discover Counters**.
- **5.** Select the local system and click **Edit**.
- **6.** Select Oracle WebLogic 9.1 as the server (port 8088), username oats and the password (the password specified when installing the Oracle Application Testing Suite product).
- 7. Click OK.
- **8.** Click **OK** and the discovery process begins. After a few moments, you will see a full list of the MBeans on the server.

The ServerStats JMX discovery caches counter information. The side effect is that it also caches error messages. For example, failure to copy the correct jar files to data collector's classes directory prior to attempting the discovery would result in an error. When the discovery is attempted after copying the jar files, the discovery

- still may not work because of the cache. The recommended workaround is to re-start the Oracle Load Testing Server and retry the discovery.
- **Problem**: When bringing up Oracle Load Testing (or Oracle Test Manager) you get the following error reported by the browser: "Unable to connect" or "Can't establish a connection to the server at localhost:8088."

Resolution: This error indicates that the OATS Application Service is not running. Start (or restart) the OATS Application Service on the server machine where you installed OATS server. You will also want to make sure that the Oracle Database services are also running (this would be OracleServiceXE and OracleXETNSListener if you used the Oracle XE database).

■ **Problem**: When bringing up OLT (or OTM) you get the following error reported by the browser: "Error 404--Not Found"

Resolution: This error indicates that the OATS Application Service is unable to connect to the Oracle Database. You will also want to make sure that the Oracle Database services are also running and start/restart them if necessary (this would be OracleServiceXE and OracleXETNSListener if you used the Oracle XE database). Then restart the OATS Application Service.

■ The remote ServerStats Data Collector requires either all of ATS installed or the Remote Agent installed on the remote Data Collector machine.

Oracle Test Manager

The following are known issues and workaround solutions for Oracle Test Manager.

- Remote execution of JUnit tests or execution of JUnit tests is not supported on Linux. Support for this is planned for a future release.
- The icons in the Tree View for Test Plans, Requirements, Tests, and Issues are automatically assigned and cannot currently be configured by the Administrator.
- After configuring a new database in the Oracle Test Manager Database
 Configuration dialog, users must restart the Oracle Application Testing Suite
 Application Service in order for that database to appear in the Database dropdown
 list on the Oracle Test Manager login page.
- **Problem**: Error in Tests tab after upgrading from 12.2x to 12.3x.

Resolution: Enable the RunName field in the Administrator, as follows:

- 1. Close the Oracle Test Manager application.
- 2. Start the Administrator.
- **3.** Select the **Fields** tab.
- **4.** Select **Test Runs** in the left pane.
- **5.** Select the 'RunName' field.
- 6. Click Edit.
- 7. Select Enabled and click OK.
- **8.** Close the Administrator and restart Oracle Test Manager.
- **Problem**: Unable to delete Test Results for a Test executed in a Test Set after the Test Set has been deleted from the Test Execution tab (the Test Run appears in the Run History section of the Test on the Tests tab but the Run does not appear in the Delete Results list).

Resolution: Delete the Test Results from the Run History section of the Test Set on the Test Execution tab before deleting the Test Set. If you delete the Test Set before deleting the Test Results from the Run History section of the Test Execution tab, the Test Results will still appear in the Run History section of the Tests tab. However, the Test Result from the Test Set run cannot be deleted from the Run History on the Tests tab.

 Problem: Any chart report with the "Version" field as first field will not show any data in the data-view.

Resolution: Do not use the "Version" field as first field.

Problem: Unable to move tree nodes up beyond Previous indicator or down beyond Next indicator in the tree view. Move operation results in a "Move Operation Failed. Please ensure the node selection is valid." warning message.

Resolution: Increase the number of displayed nodes in the user options. Select **Options** from the **Tools** menu, select **Tree Preferences** and increase the **Maximum Number of Displayed Nodes** value.

■ **Problem**: Goto does not work for Tree grouped by "Run By" or "Las Run Status". This issue may occur after upgrade from Oracle Application Testing Suite pre-9.3x.

Resolution: Perform the following updates against the Oracle Test Manager database:

- **1.** Stop ATS service.
- **2.** Open a command prompt.
- **3.** Type sqlplus <schemaname>/<password><@service>.
- **4.** When connected to the schema, paste following queries:

```
UPDATE "Special_Field" SET SpecialFieldId=23, label = 'Last Run By' WHERE
AttachedToTypes=8 and Name='runbyuser';

UPDATE "Special_Field" SET SpecialFieldId=24 WHERE AttachedToTypes=8 and
Name='duration';

UPDATE "Special_Field" SET SpecialFieldId=25, Type=7 WHERE
AttachedToTypes=8 and Name='rundate';

commit;
```

- **5.** Type quit to exit from sqlplus.
- **6.** Type exit to close the command window.
- **7.** Start the ATS service.
- **Problem**: When upgrading from version 9.31 to 12.1, certain pre-existing OTM Filters and Groups may no longer work properly. This issue may be associated with filters based on usernames, such as "Created By", "Owner", "Last Modified By", and with filters based on date and version fields, such as "Last Modified Date" field, and "Version" field.

Resolution: The filters/groups may need to be recreated manually.

■ **Problem**: Exceptions occur or application hangs when attempting to export extremely large projects (projects exceeding 11,000 test cases).

Resolution: For large databases, change Stuck Thread Max Time parameter (default value is 600, i.e. 10 min.) for the server using the following steps:

- **1.** Close all OATS applications.
- 2. Open a browser and go to http://localhost:8088/console/ (or http://<server>:8088/console/).
- **3.** Log into WebLogic Server (username "oats", password defined during OATS installation).
- **4.** Expand the **Environment** tree under **Domain Structure** (left pane).
- **5.** Select **Servers**.
- **6.** Click the <u>AdminServer(admin)</u> link under Servers (right pane).
- **7.** Click the **Tuning** tab.
- **8.** Change the value for parameter "Stuck Thread Max Time" to a larger appropriate value.
- **9.** Click **Save** then restart the application server.
- Problem: Oracle Test Manager fails to playback certain OpenScript scripts completely.

Resolution: The following additional steps are required in order to run the following types of OpenScript scripts from Oracle Test Manager:

- Siebel Functional
- Oracle Forms Functional
- Web Functional scripts that rely on system input events, such as key press or mouse click
- Web Functional scripts that display modal dialog windows

It is necessary to run these scripts using an interactive desktop of a named Windows user account that is always logged in. See also Section , "Command-Line Script Execution" for additional information.

- 1. For Siebel and Oracle Forms, the named user's account must have visited the Siebel or Oracle Forms site at least once to ensure that all necessary ActiveX controls and plug-ins are installed in the named user's browser.
- **2.** On the Oracle Test Manager agent machine that will run the scripts, stop the "Oracle Application Testing Suite Agent Service" and configure it to start manually.
- **3.** On the Oracle Test Manager agent machine, login as the named Windows user account that will run the scripts. From a command prompt, run the following all as one command. The .conf file is an argument for the .exe.

C:\OracleATS\agentmanager\bin\AgentManagerService.exe -c
C:\OracleATS\agentmanager\bin\AgentManagerService.conf

where C:\OracleATS is the OATS installed folder.

Note: For Windows 7 and Vista systems, the command must be run using the elevated command line. From the Start menu, expand the Accessories, right click on the Command Prompt menu option and select **Run as administrator** from the shortcut menu.

- **4.** The named user account must remain logged into the system at all times that scripts will be run.
- **Problem**: When bringing up Oracle Load Testing (or Oracle Test Manager) you get the following error reported by the browser: "Unable to connect" or "Can't establish a connection to the server at localhost:8088."

Resolution: This error indicates that the OATS Application Service is not running. Start (or restart) the OATS Application Service on the server machine where you installed OATS server.

You will also want to make sure that the Oracle Database services are also running (this would be OracleServiceXE and OracleXETNSListener if you used the Oracle XE database).

■ **Problem**: When bringing up Oracle Load Testing (or Oracle Test Manager) you get the following error reported by the browser: "Error 404--Not Found"

Resolution: This error indicates that the OATS Application Service is unable to connect to the Oracle Database. You will also want to make sure that the Oracle Database services are also running and start/restart them if necessary (this would be OracleServiceXE and OracleXETNSListener if you used the Oracle XE database). Then restart the OATS Application Service. See the above note about stopping and restarting services on Windows 7/Vista systems.

Oracle Database 10g Express Edition

The following are known issues and workaround solutions for Oracle Database 10g Express Edition.

■ **Problem**: In some cases, the Oracle Database 10*g* Express Edition service does not start completely.

Resolution: If you receive a 404 Not Found error when starting Oracle Load Testing or Oracle Test Manager, restart the Oracle database service and the Oracle Application testing service, as follows:

Note: On Windows 7/Vista (UAC systems), it is necessary to run commands from an elevated command line in order to restart services. If you try to run it from the **Start** menu, you will see the following errors in the cmd window:

System error 5 has occurred. Access is denied.

Run services.msc from the command line and restart the services from there. Windows 7/Vista (UAC systems) require administrator privileges to run commands from an elevated command line in order to stop and restart services.

- 1. Open the Control panel and the Administrative Tools.
- 2. Open Services.
- **3.** Select the Oracle Application Testing Suite Application Service and click **Stop** the service.
- **4.** Select the OracleServiceXE service and click **Restart the service**.
- **5.** Wait for the OracleServiceXE service Status to indicate "Started".

- **6.** Select the Oracle Application Testing Suite Application Service and click **Start** the service.
- **7.** Wait for the Oracle Application Testing Suite Application Service Status to indicate "Started".
- **8.** Restart Oracle Load Testing or Oracle Test Manager.

Oracle Functional Testing - OpenScript

The following are known issues and workaround solutions for Oracle OpenScript.

■ **Problem**: EBS/Forms automation must be enabled on the Agent to run EBS Functional scripts from Oracle Test Manager or Oracle Load Testing.

Resolution: If you plan to run EBS Functional scripts from Oracle Test Manager or Oracle Load Testing, you will need to enable EBS/Forms automation on the agent. This action will disable EBS/Forms automation for OpenScript on the same machine as the agent. Enabling EBS/Forms automation on OpenScript will disable EBS/Forms automation on the agent. See section **7.1.2 Prerequisites** in the *Oracle Functional Testing OpenScript User's Guide* for information about enabling and disabling EBS/Forms automation for OpenScript and the agent.

 Problem: EBS/Forms functional testing module is not compatible with JRE version higher than 7u45.

Resolution: The Java console shows the version of the JVM running the Applet on the start of the Applet. If you have an Applet JRE higher than 7u45 or 6u45, first uninstall it using Add/Remove programs from the Control Panel, then install the required version. Download a compatible version from the Oracle Java Archive:

http://www.oracle.com/technetwork/java/archive-139210.html

■ **Problem**: Playback does not work with Chrome browser version 32 or higher.

Resolution: Limit playback with Chrome browser to versions between 27 and 31. You may need to disable the auto update feature of the Chrome browser to prevent the Chrome browser from updating to a version higher than 31. See the following articles for information about disabling auto updates:

```
http://dev.chromium.org/administrators/turning-off-auto-updates
-or-
http://support.imonggo.com/help/kb/browser/how-to-stop-google-chrome-from-auto-updates
```

You may also need to install an older version of the Chrome browser to revert to a version lower than 32. See the following articles for information about installing and older version of the Chrome browser:

```
http://support.imonggo.com/help/kb/browser/how-to-install-a-previous-version-of
-chrome
-and-
http://www.oldversion.com/windows/google-chrome/
```

- Problem: Certain Document Object Model events may not be recorded correctly when recording actions in JD Edwards EnterpriseOne Grid Controls. Be sure to verify the script recording in the following situations:
 - Clicking a text link in a JDE Grid cell.
 - Clicking an image link in a JDE Grid cell.

- Clicking a checkbox in a JDE Grid cell.
- Clicking a tree node in a JDE Grid cell to expand/collapse tree in JDE Grid.

Resolution: In cases where the JDE Grid cell actions are not recorded properly, you can add the actions to the script tree using the **Add...Other** option on the **Script** menu. Expand the EnterpriseOne Actions and EOneGrid nodes, select the appropriate actions and specify the details. Alternatively, you can edit the script Java code in the Code View to add the actions in the appropriate locations using the JD Edwards EnterpriseOne Grid Control API, as follows:

```
eone.grid(String path).clickCellLink(int row, int column)
eone.grid(String path).clickCellIcon(int row, int column)
one.grid(String path).setCellCheckBox(int row, int column, boolean checked)
one.grid(String path).expandTreeNode(int row) or eone.grid(String path).collapseTreeNode(int row)
```

The path parameter is the path of the JDE Grid control, which can be copied from another recorded statement. The row and column parameters are both the 0-based row/column indexes in the JDE Grid control.

■ **Problem**: Windows 7 does not permit running OpenScript as non-administrator user. Steps are not recorded in the Windows 7 Secure Desktop environment for non-administrator user when navigating between zones with different security settings. A new process for zones with different security level starts in the browser.

For example, when starting recording, a browser (brower.launch) starts with the about:blank page – Internet Security Zone. If you start recording the application-under-test – Intranet security zone, a new browser process starts. The OpenScript toolbar is not enabled in the new process and steps performed in the application-under-test are not recorded.

Resolution: The following workarounds can be used:

- Set security settings for the Intranet zone to the same as the Internet zone.
- Add about:blank to the Local Intranet zone.

To set security settings for the Intranet zone:

- 1. In Internet Explorer, select **Internet Options** from the **Tools** menu.
- **2.** Select the **Security** tab.
- 3. Select Internet.
- **4.** Note the security level settings for the Internet zone.
- **5.** Select Local intranet.
- **6.** Set the Security level setting to the same setting as the Internet zone.
- 7. Click **OK**.

To add about: blank to Local Intranet zone:

- 1. In Internet Explorer, select **Internet Options** from the **Tools** menu.
- **2.** Select the **Security** tab.
- 3. Select Local intranet.

- Click Sites.
- 5. Click Advanced.
- **6.** Type about:blank into **Add this website to the zone** field.
- **7.** Click **Add**.
- Click Close.
- 9. Click OK.
- 10. Click OK.
- 11. Use the Intranet zone when recording or playing back scripts in OpenScript.
- Problem: Adobe Flex controls do not record during Adobe Flex functional testing.

Note: The automation libraries/swc files are required for Flex Functional Testing only. This does not apply for Adobe Flex (AMF) load testing which records at the protocol level.

Resolution: The Flex application must include the Adobe Flex automation libraries either at compile time or at run time. You need at least automation.swc and automation_agent.swc from the Adobe <flex builder>\sdks\3.5.0\frameworks\libs folder (3.5.0 is an Adobe sdk version). Also, automation_dmv.swc is required for charts, advanceddatagrid and olapdatagrid support. See the Creating Applications for Testing section of the Adobe Flex Data Visualization Developer's Guide for additional information about the tasks required to include the Flex automation libraries.

Creating Applications for Testing:

http://livedocs.adobe.com/flex/3/html/help.html?content=functest_ components2_15.html#178953

Adobe Flex Data Visualization Developer's Guide:

http://livedocs.adobe.com/flex/3/html/help.html?content=functest_ components2_15.html#178953

The Oracle OpenScript openscript_agent.swc file must be included when re-compiling Flex applications. The Flex application must be linked with the OpenScript Flex agent located in

<installdir>\OpenScript\plugins\oracle.oats.scripting.modules.flexFT_
version\flexagent\openscript_agent.swc or equivalent.

 Problem: Automatic proxy configuration (Preferences - OpenScript - Record -HTTP Module) for Firefox may not correctly configure the browser proxy.

Resolution: To record through Firefox, you should configure the browser proxy settings manually (Default: host=localhost, port=7777).

Problem: Certain systems may have trouble launching the OpenScript Help (Help - Help Contents).

Resolution: This can be resolved by configuring the help to open in an external browser window:

1. From the Tester Perspective, select **View - OpenScript Preferences**.

- 2. Click the "Clear" icon next to the filter text field in the upper left. Click the Help tree node and check the "Use external browser" box in the Help preferences.
- **3.** Click **OK** and relaunch OpenScript Help.
- Problem: When recording a functional testing script you get the following error: "Cannot connect to browser".

Resolution: The browser did not come up in the required amount of time when you clicked the Record button. This could be because the machine was busy or the ATS OpenScript browser add-ons for IE or Firefox were not installed properly. You can try increasing the browser "Startup timeout" setting under OpenScript Preferences, General...Browser section. If that does not work, run the OpenScript Diagnosis Tool under OpenScript Help. The Diagnosis Tool will attempt to correct any browser add-on installation problems, and report any failures it encounters.

■ **Problem**: When recording a functional testing script, you do not see any actions added to the script after recording.

Resolution: The browser add-on is not capturing events and sending them to OpenScript during recording. Run the OpenScript Diagnosis Tool under OpenScript Help. The Diagnosis Tool will attempt to correct any browser add-on installation problems, and report any failures it encounters. You can also try switching from IE to Firefox to see if that works better.

■ **Problem**: When you record a Web load test script, you do not see any navigations added to the script after recording.

Resolution: OpenScript uses an HTTP proxy server between OpenScript and the target application when you record Web load test scripts. If your browser is accessing the Web via a proxy, you may need to chain that proxy through OpenScript's HTTP recording preferences. OpenScript will attempt to chain the proxy automatically for you using the browser's proxy settings. If you do still have problems recording HTTP navigations, check the "HTTP" Record preferences for network interface and proxy settings.

Also, if you are recording a load test script against a local Web application running on the same machine as OpenScript (like Weblogic Medical Records), you cannot use "localhost" as the server name in the http request. So in the browser, specify your starting URL as: http://systemname:7011/medrec/index.action instead of http://localhost:7011/medrec/index.action. This has to do with the fact that IE bypasses the proxy for localhost addresses and is not an issue for recording in Firefox.

■ **Problem**: When recording an Oracle EBS/Forms functional testing or load testing script, the browser appears to hang when loading the Oracle Forms applications and you are not able to continue.

Resolution: The browser you are using to record your script may not have the proper JVM version downloaded/installed that is required to run the Oracle Forms applications. Before you start recording Oracle EBS/Forms functional testing or load testing scripts, step through the EBS/Forms transaction once in the browser stand-alone (i.e. while not recording) to make sure you have the proper JVM downloaded/installed and confirm that the Forms applications run properly – then try to re-record your script.

■ **Problem**: When recording a Siebel functional testing or load testing script, the browser appears to hang when loading the Siebel High Interactivity applications and you are not able to continue.

Resolution: The browser you are using to record your script may not have the Siebel High Interactivity Framework Active-X components installed that are required to run the Siebel HI applications. Before you start recording Siebel functional testing or load testing scripts, step through the Siebel transaction once in the browser stand-alone (i.e. while not recording) to make sure you have the proper components downloaded/installed and confirm that the Siebel HI applications run properly – then try to re-record your script.

■ **Problem**: When recording a Siebel functional testing script, you do not see any Siebel High Interactivity component actions recorded in your script.

Resolution: In order to record Siebel functional testing scripts in OpenScript, the Siebel Test Automation Component Automation Services (CAS) must be enabled on Siebel Server before recording. Please review the documentation for information on how to enable Siebel Test Automation for Siebel 7.7, 7.8 and 8.x versions. This is not required for Siebel load testing scripts.

• **Problem**: A database error occurs when trying to generate graphs in Oracle Load Testing.

Resolution: This may occur if the Oracle XE database was installed separately and not part of the Oracle Application Testing Suite installation. The default setting for allowed connections for the XE process is low and needs to be increased. From a command prompt, run the following command, then restart Oracle XE:

alter system set processes=200 scope=spfile;

Web Functional Test Recording with Firefox Troubleshooting

The following section describes Web Functional Test Recording with Firefox Troubleshooting techniques.

When using the Firefox browser, you should disable or not install any add-ons into the OpenScript-created Firefox profiles.

Command-Line Script Execution

The following are tips, known issues, and workaround solutions for running OpenScript scripts from the Command-Line Interface (CLI).

■ **Problem**: Playback does not recognize objects outside of the visible window area. (Note: this is also applicable to playback of scripts from the OpenScript UI.)

Resolution: When playing back scripts, make sure the browser window is the same size as when the script was recorded. One way to ensure that the browser is the same size is to record the script with the browser window maximized, then add a web.window("path").maximize() method to the script code before playing back the script. Also, make sure the machine used to play back the script is set to the same screen resolution as the machine used to record the script.

■ **Problem**: Playback does not recognize recorded keyboard actions.

Resolution: When recording scripts for command-line execution, use mouse clicks instead of keyboard actions to interact with the application-under-test. For example, when filling in forms, click the mouse on the form fields before entering text rather than using the Tab key. Also, click the Submit button with the mouse rather than pressing the Enter key.

■ **Problem**: Playback does not work with Remote Desktop minimized.

Resolution: Make sure the Remote Desktop is visible/maximized before playback. Alternatively, you can add the RemoteDesktop_SuppressWhenMinimized value to the Registry of the system from which you are running the command-line interface, as follows:

Caution: The following procedures modify your system Registry. Modifying the system Registry carries risk of causing serious problems that may affect the operation of your operating system software. Use the information provided at your own risk.

- 1. Close any currently open Remote Desktop connections.
- **2.** Select **Run** from the **Start** menu.
- **3.** Type regedit and click **OK**.
- **4.** Expand one of the following Registry keys depending upon the system and which user account you want to use for the command-line execution:
 - for 32-bit current user account:

HKEY_CURRENT_USER\Software\Microsoft\Terminal Server Client

for 32-bit all user accounts:

HKEY_LOCAL_MACHINE\Software\Microsoft\Terminal Server Client

for 64-bit current user account:

HKEY_CURRENT_USER\Software\Wow6432Node\Microsoft\Terminal Server Client

for 64-bit all user accounts:

HKEY_LOCAL_MACHINE\Software\Wow6432Node\Microsoft\Terminal Server
Client.

- 5. Select New from the Edit menu, then select DWORD (32-Bit) Value.
- **6.** Enter RemoteDesktop_SuppressWhenMinimized as the name and press Enter.
- 7. Double-click the RemoteDesktop_SuppressWhenMinimized registry entry to open the edit dialog box.
- **8.** Specify 2 in the **Value Data** field and click **OK**.
- **9.** Close the Registry Editor.
- Problem: Need to automatically initiate a Remote Desktop connection after a reboot.

Resolution: You can initiate a Remote Desktop connection after rebooting the test machine using a saved Remote Desktop Protocol (.rdp) file for a Remote Desktop connection.

To specify and save a Remote Desktop Protocol file:

- 1. Select Accessories from the Start menu, then select Remote Desktop Connection.
- **2.** Click the **Options** button.
- **3.** Specify the Logon settings in the **General** tab.

- **4.** If you wish to be able to start the Remote Desktop Connection without being prompted for credentials (user and password), select **Allow me to save credentials**.
- **5.** If you wish to automatically start a program on the Remote Desktop connection, click the **Programs** tab and specify the program to start.
- **6.** Click the **Connect** button.
- 7. Enter the username and password and click **OK**.
- **8.** Close the Remote Desktop connection.
- **9.** Select **Accessories** from the **Start** menu, then select **Remote Desktop Connection**.
- **10.** Click the **Options** button.
- 11. Select the General tab, if necessary, and click Save As.
- 12. Specify the directory and file name for the .rdp file and click Save.
- **13.** If you wish to automatically scale the Remote Desktop when connecting, edit the saved .rdp file in a text editor and add the following setting to the end of the settings:

```
smart sizing:i:1
```

14. Schedule the .rdp file to launch automatically after a reboot/restart using Task Scheduler or create a batch file on the test machine using a text editor with the following command:

```
mstsc c:/myRdpFile.rdp
```

where ${\it myRdpFile}$ is the name you used to save the Remote Desktop connection file.

15. If you use a batch file, schedule the batch file to run using a tool that is capable of launching the batch file automatically after a reboot/restart.

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For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at

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