Installation Guide

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Contents

Preface

This guide is applicable to all 2.X versions of the Presto Enterprise Mashup Platform and all its components.

Conventions

- All folder and file paths are shown in URL or UNIX syntax, using the slash as separator. For example: `parent/child-folder/filename.txt`
- Menus, buttons or other components in the user interface of applications are shown in **bold**
- Function, method, class or other names within code or the API is shown in `monospace`
- Content that you type literally or enter in a user interface is shown in this font: userinput
- Content that you enter that is specific to your requirements, such as a file name or path in your environment, is shown in italics with a placeholder name indicating the type of content. For example: *`path-to-your-app-server`*. There are two well-known placeholders:
  - *`presto-install`* = the installation folder for Presto.
  - *`web-apps-home`* = the home folder for web applications in your application server.
  - *`app-server:port`* = the name or IP address and the port number for the application server for Presto.
- Optional elements in a command or the signature of an API function are enclosed in brackets: [optional-component]
- Alternatives in commands are separated by an upright bar. For example: `pushserver.bat start | stop`

Installation

The Presto Enterprise Mashup Platform is installed as several components.

System and Software Requirements

Recommendations for Presto

- 2 Gigabytes (GB) of RAM.
- 275 megabytes (MB) of available hard disk space for installation plus a recommended 100 MB additional space for growth in the Presto Repository.
- Windows, Linux, OS/X or Solaris operating system.

  Presto has been tested in Windows Vista , Windows XP (SP2), Linux Fedora Core 5, Suse Linux 10 (SP2), OS/X 10.4.6 and Solaris 10 x86.
- JDK 1.4.2 or 1.5.
- If JMX cascade clusters are enabled, JMX 1.1.
- Any of the following browsers for Presto applications:
  - Internet Explorer 6.0 or 7.0.
  - Firefox 2.0.

Recommendations for the Mashup Studio Eclipse Plug-in

The Mashup Studio Eclipse Plug-in is recommended to be installed on development clients along with Presto servers and applications. This plug-in can be installed separately, although remote debugging is not supported. If Presto is co-hosted with Mashup Studio, see Recommendations for Presto on page 7 for additional requirements.

- 1 Gigabyte (GB) of RAM.
- 50 megabytes (MB) of available hard disk space for the plug-in.
- Windows Vista or XP (SP2), Linux or OS/X operating system.
- JDK 1.5.
- Any of the following:
  - Eclipse Platform, version 3.4 (Ganymede build), 3.3 (Europa build) or 3.2 (Callisto build).
  - Rational Software Architect, version 7.5 .
- WTP Feature, with appropriate versions, for Eclipse Platform 3.3 or 3.2 only.

  Note: for best results in Eclipse 3.3 or 3.2, add the Mashup Studio plug-in to a new installation of the WTP All-In-One package which includes that version of the Eclipse Platform.

Recommendations for the PrestoExcel Connector

- 1.7 megabytes (MB) of available hard disk space.

- Recommended hardware requirements for Windows Office 2003 or 2007 and the .NET Framework 2.0.
- Microsoft Office 2003 (SP3) or Office 2007 and any compatible Windows operating system.
- Windows Office 2003 or 2007 Primary Interop Assemblies, respectively.
- Microsoft .NET Framework 2.0.

Recommendations for the PrestoPortal Connector

Currently this connector is available for the Oracle Application Server or for any JSR-168 compliant portal.

System requirements for Oracle installations include:

- Oracle Application Server 10g (10.1.3.0.0).
- Oracle Containers for Java, v10.1.3.3.
- 2 Gigabytes (GB) of RAM.

System requirements for installations with other portal servers include:

- WebLogic Portal 10.2 plus any system requirements defined for WebLogic.
- JetSpeed Portal 2.1.3 plus any system requirements defined for JetSpeed.
- Liferay Portal 4.4.1 or 4.4.2 Standard Edition plus any system requirements defined for Liferay.

  Note: the Portal Connector has been tested with Liferay 5.2.2 Standard Edition with one known incompatibility. See Presto 2.7.0 Release Notes (in *presto-install*`/docs`) for a work around.

Recommendations for the PrestoHP SOA Systinet Connector

This connector is compatible with HP SOA Systinet 3.0 or 2.5.2.

Recommndations for the Presto Event Connector

JDK 1.5 is required to support these optional features:

- Local, event-driven services in JRuby.
- Secure connections to the Event Connector using HTTPS.

Recommendations for the Presto Connect for C# Library

- 220 kilobytes (KB) of available hard disk space.
- Recommended hardware requirements for Windows .NET Framework 2.0.
- Windows .NET Framework 2.0 or Visual Studio .NET 2005.

Recommendations for the Presto Connect for VBA Library

Installing Presto Connect for VBA also installs the library for Presto Connect for C#.

- 175 kilobytes (KB) of available hard disk space.
- Recommended hardware requirements for Windows .NET Framework 2.0.

- Windows .NET Framework 2.0 or Visual Studio .NET 2005.

Requirements for Optional Mashup/Mashlet Views

Additional requirements for the following optional views for Presto mashup or mashlet results include:

- Yahoo Map View requires Internet access.
- Chart View, for all chart types, requires Adobe Flash 8 or higher.

What Is Installed

The following software is installed with Presto:

- Apache's Tomcat Servlet Container, v 5.5.20.
- HSQL Database, v1.8.0.

Presto Application Server Compatibility

Presto is installed with Tomcat as its default servlet container. Presto is compatible with Tomcat or any J2EE application server with JDK 1.4.2 or 1.5. Presto has been tested in the following application server configurations:

- BEA WebLogic Server 10.0
- IBM WebSphere Application Server 6.1
- JBoss Application Server 4.2.2GA
- Oracle Containers for Java (OC4J) 10.1.3
- Tomcat 5.5.20

Presto Database Compatibility

Presto has an internal database, the Presto Repository, and also works with databases as service providers - making database assets visible as services.

- Presto is installed with an HSQL database as the default host for the Presto Repository. The Presto Repository is also compatible with:
  - MySQL 5.x (tested with `mysql-connector-java-5.1.5-bin.jar` driver)
  - Oracle 10g (tested with `ojdbc14.jar` driver)
- Presto supports any database with a JDBC 2.1 compliant driver as a service provider. It has been tested with:
  - DB2 9.5 (`db2jcc.jar`)
  - MySQL 5.x (`mysql-connector-java-5.1.5-bin.jar`)
  - MSSQL 2005 (`sqljdbc.jar`)
  - Oracle 10g (`ojdbc14.jar`)
  - Sybase 15 (`jconn3.jar`)

Presto Browser Compatibility

Presto composer applications and mashlets have been tested and are compatible with the following browsers except as noted (✕ = incompatible):

	Firefox 3	Internet Explorer 6	Internet Explorer 7	Safari 4 Beta
Admin Console	✓	✓	✓	✓
Mashboard	✓	✓	✓	✓
Mashlets	✓	✓	✓	✓
Mashlet Maker	✓	✓	✓	✓
Presto Home Page	✓	✓	✓	✓
Service Explorer	✓	✓	✓	✕
Wires	✓	✓	✓	✓

Installing Presto Enterprise Edition

Before Starting This Task: if not already present, install JDK 1.4.2 or 1.5 for server environments or JDK 1.5 for development environments. For Windows Vista systems, you must also temporarily disable the UAC component.

If you have existing instances of Presto installed on this computer, you must do one of the following:

- Install a new instance of Tomcat for this new instance of Presto
- Choose to install a new Tomcat instance with Presto during installation.

Each instance of Presto must run in a separate application server.

Obtain a license key from your authorized JackBe Representative. Or you can use the 30-day evaluation license key that is installed with Presto. Then, download the Presto installation package from http://www.jackbe.com/.

The Presto Enterprise EditionPresto is licensed for production enviroments and includes options for technical support. This edition include all Presto components and connectors.

Steps:

1. Extract the contents of the Zip or Archive file that you downloaded to any folder on your computer.

   Important: in Linux, OS/X or UNIX systems, make sure the folder name and path where you extract the installation files do **not** contain spaces. Paths with spaces can cause the installation to fail.

2. Double-click the appropriate Java Archive (JAR) file from the Presto download, based on your operating system:

- `install-vista.jar` for Windows Vista
- `install-win.jar` for Windows XP
- `install-unix.jar` for Linux, OS/X or Solaris

  Note: you can also right-click the JAR file and select **Open with > Java**.

  Or, you may need to find Java if you are prompted to find the program to use with the installation JAR. Choose to find the program on your system. Navigate to the JDK or JRE installed on your computer and then select `bin/java.exe` as the program to use.

3. Click **Next** from the Welcome screen.
4. Accept the license agreement and click **Next**.
5. Accept the default installation path for Presto, or click **Browse** and navigate to the location where you want to install Presto.

   Important: you **must** change the default installation path for Presto in these cases:

   - In Windows Vista systems, change the default installation path to a folder that is **not** under Program Files to ensure that installation is successful. Security restrictions in Windows Vista do not always permit installations under Program Files.
   - In Linux or UNIX systems, make sure the folder name and path where you install Presto does **not** contain spaces. Paths with spaces can cause problems when starting Presto components.

6. Enter the path to the JDK installation, or click **Browse** and navigate to this installation. Click **Next**.

   Note: for production environments, this can be JDK 1.4.2 or 1.5. For development environments this **must** be JDK 1.5.

   For WebLogic application servers, use the Sun JDK available in your WebLogic installation.

7. If you already have a compatible version of Tomcat installed that does **not** host another instance of Presto, enter the installation path to Tomcat or click **Browse** and navigate to this installation. Otherwise, accept the default folder or choose an installation folder for a new instance of Tomcat.

   Important: do **not** install Presto to an existing Tomcat server that hosts an existing instance of Presto. This will overwrite the existing Presto instance and remove any configuration changes.

   Presto is also compatible with any J2EE compliant application server. You should install Presto initially with Tomcat and then deploy it in your application server. For more information, see Deploying Presto in Other Application Servers on page 31.

8. If needed, change any of these ports for Tomcat or for Presto:
   - **Tomcat HTTP Port**: the port that Tomcat uses for HTTP requests. This defaults to 8080.

- **Tomcat HTTPS Port**: the port that Tomcat uses for HTTPS requests. This defaults to 8443.
- **Tomcat Command Port**: the port that Tomcat uses for shutdown or other command requests. This defaults to 8005.
- **Presto Repository Port**: the port for the Presto Repository. This defaults to 9001.
- **Presto Admin Clustering Port**: the port that the Presto Administration Server uses for JMX clustering. This defaults to 9292.

You must change port configuration if you have another instance of Presto installed in this computer that already uses the default ports or you have port conflicts from other software.

> **Note:** Presto does **not** update Tomcat port configuration based on this information if you chose an existing Tomcat installation in the previous step.

9. Click **Next**.
10. Select the specific Presto components that you want to install from the displayed list and click **Next**.
11. A list of the components you have chosen to install is displayed. If this is correct, click **Next**.

    Installation begins.
12. Click **Next**.
13. For Windows operating systems, change the options for the program groups and shortcuts to install, if desired, and click **Next**.
14. Once installation is complete, click **Done**.

After Completing This Task: you should complete these additional configuration or installation tasks:

- For Windows Vista systems, re-enable UAC.
- If you find that you have port conflicts when you start the Mashup Server, see Configuring the Presto Server with Custom Ports on page 24 for instructions on updating port configuration.
- If you installed a new instance of Tomcat with Presto, Presto updates port configuration for Tomcat. If you installed Presto to an existing Tomcat instance, you may also need to update Tomcat configuration.
- If you have a proxy server in your environment, you may also need to add proxy server configuration to Presto. See Configuring the Presto Server to Work with a Proxy Server on page 27.
- For permanent Presto licenses or extensions to evaluation licenses, you should register the license before you begin using Presto. See Registering the Presto License on page 14 for instructions.
- You may also want to download and install any of these connectors, libraries or plug-ins for Presto:
  - The Eclipse plug-in for the Mashup Studio. See Installing the Mashup Studio Eclipse Plug-in Remotely on page 15 or Installing the Mashup Studio Eclipse Plug-in Locally on page 16 for instructions.

- The Presto Excel Connector. See Installing the Presto Excel Connector on page 17 for instructions.
- The Presto Portal Connector. See Installing the Presto Portal Connector on page 20 for instructions.
- The library for Presto Connect for C#. See Installing the Presto Connect for C# Library on page 23 for instructions.
- The library for Presto Connect for Visual Basic. See Installing the Presto Connect for C# Library on page 23 for instructions.

▸ Once you have registered your license, you can deploy Presto in another application server, if needed. See Deploying Presto in Other Application Servers on page 31 for instructions.

Installing Presto Developer Edition

Before Starting This Task: if not already present, install JDK 1.4.2 or 1.5. To use Mashup Studio, you must have JDK 1.5 installed. Shutdown any instances of the Presto Repository on your computer.

The Presto Developer Edition includes all Presto components and connectors. It is licensed only for non-production enviroments and does not include technical support. Information, forums, demos, samples and other support for the Presto Developer Edition are available from the Mashup Developer Community.

Steps:

1. Download the Presto installation package from the Mashup Developer Community at http://www.jackbe.com/dev.

   The permanent license key for Presto is sent to you in a separate email once you agree to the software license.

2. Extract the contents of the Zip or Archive file that you downloaded to any folder on your computer.

   Important: for Linux, OS/X and UNIX environments, make sure the folder name and path where you extract the installation files do **not** contain spaces. Paths with spaces can cause the installation to fail.

   Presto is installed in *`unzip-folder`*`/Prestoversion`. Tomcat is installed with Presto as Presto's default servlet container.

3. Run the appropriate script listed below, based on your operating system:
   - **For Windows**: *`presto-install`*`/setup.bat`
   - **For Linux, OS/X or UNIX**: *`presto-install`*`/setup.sh`
4. When prompted, press **Return** to accept the default configuration for any option or enter configuration for the:
   - **Java/JDK home directory** defaults to the JDK or JRE defined in the `JAVA_HOME` environmental variable, if any.

     Note: this can be JDK 1.4.2 or 1.5. To use Mashup Studio, this **must** be JDK 1.5.

     For WebLogic application servers, use the Sun JDK available in your WebLogic installation.

- **Tomcat HTTP port** defaults to 8080.
- **Tomcat HTTPS port** defaults to 8443.
- **Tomcat shutdown port** defaults to 8005.
- **Presto Repository port** defaults to 9001.
- **Presto Admin Agent** port defaults to 8282. This port is used by the Presto Administration Server.

You must change port configuration if you have another instance of Presto installed in this computer that already uses the default ports or you have port conflicts from other software.

5. Review the configuration settings and enter Y if they are correct.

   Once confirmed, installation updates configuration files and startup/shutdown scripts for Presto and Tomcat.

6. After you receive the Presto license key, you must register the license before you can begin using Presto. See Registering the Presto License on page 14 for instructions.

After Completing This Task: you should complete these additional configuration or installation tasks:

- If you find that you have port conflicts when you start the Mashup Server, see Configuring the Presto Server with Custom Ports on page 24 for instructions on updating port configuration.
- If you have a proxy server in your environment, you may also need to add proxy server configuration to Presto. See Configuring the Presto Server to Work with a Proxy Server on page 27.
- You may also want to download and install any of these connectors, libraries or plug-ins for Presto:
  - The Eclipse plug-in for the Mashup Studio. See Installing the Mashup Studio Eclipse Plug-in Remotely on page 15 or Installing the Mashup Studio Eclipse Plug-in Locally on page 16 for instructions.
  - The Presto Excel Connector. See Installing the Presto Excel Connector on page 17 for instructions.
  - The Presto Portal Connector. See Installing the Presto Portal Connector on page 20 for instructions.
  - The library for Presto Connect for C#. See Installing the Presto Connect for C# Library on page 23 for instructions.
  - The library for Presto Connect for Visual Basic. See Installing the Presto Connect for C# Library on page 23 for instructions.
- Presto is installed with Tomcat as its default servlet container. Once you have registered your license, you can deploy Presto in another application server, if needed. See Deploying Presto in Other Application Servers on page 31 for instructions.

Registering the Presto License

When you install Presto, a default, 30-day evaluation license is also installed with the Enterprise Edition. You receive permanent or extension licenses from your JackBe representa-

tive. With the Developer Edition, you receive a permanent license key in email after you download Presto from the Mashup Developer Community.

Steps:

1. If it is not running, start the Mashup Server. See Starting and Stopping the Presto Mashup Server on page 42 for instructions.
2. Open the Mashup Server at http://*app-server:port*/presto/.

   A warning page opens indicating there is no valid license.
3. Click **upgrade**.
4. Enter the license key for Presto.
5. Read the license terms and accept them.
6. Click **apply**.

   Presto validates the new license, which may take a few moments and returns to the warning page.
7. Click **go home** to open the Mashup Server home page and log in.

   If this is a new installation, use the default administrator user, admin, and password, adminadmin, to log in. If you experience problems, see Common Problems Opening Presto Applications or Logging In on page 46 for suggestions.

After Completing This Task: once you have registered your license, you can deploy Presto in another application server, if needed. See Deploying Presto in Other Application Servers on page 31 for instructions.

You can now begin working in Presto applications. See Starting Presto and Accessing Presto Applications on page 41 for more information.

Installing the Mashup Studio Eclipse Plug-in Remotely

Before Starting This Task: you must have one of these platforms installed:

- Eclipse Platform 3.4 (Ganymede build)
- Eclipse Platform 3.3 (Europa build) and the WTP Feature 2.0. Install the WTP-all-in-one 2.0 package for your operating system for best results.
- Eclipse Platform 3.2 (Callisto build) and the WTP Feature 1.5.3. Install the WTP-all-in-one 1.5.3 package for your operating system for best results.
- Rational Software Architect 7.5 (packaged in Ganymede)

You must have JDK 1.5 installed and have Internet access to connect to the remote Mashup Studio plug-in update site.

> **Note:** all Mashup Servers that you use to find services and debug mashups in Mashup Studio should also run in JDK 1.5.

For best results, add the Mashup Studio plug-in to a vanilla installation of the Ganymede, Europa or Callisto Eclipse builds.

The following instructions are for Eclipse 3.4:

Steps:

1. Open Eclipse and select **Help > Software Updates**.

2. In the Software Updates and Add-ons window, select the **Available Software** tab and click **Add Site**.
3. In the Add Site window.
   a. Enter this URL to the JackBe web site:

      http://www.jackbe.com/downloads/presto/mashupstudio/

   b. Click **OK**.
4. Select the new update site and the Mashup Studio feature and click **Install**.
5. Review the features selected for installation. Click **Next**.
6. Accept the license and click **Next**.
7. Click **Finish**.

   Installation of the Mashup Studio plug-in begins.
8. Once installation is finished, restart Eclipse when you are prompted.
9. Enlarge the default Eclipse configuration for memory in the *eclipse-install*`/eclipse.ini` file.

   Memory requirements are highly dependent on the host capacity and your environment. Suggested minimum settings include:

   - `-Xlauncher.XXmaxPermSize128m`
   - `-Xms256m`
   - `-Xmx512m`

   Restart Eclipse.

After Completing This Task: to work with Presto services in the mashup scripts you create in in Mashup Studio, you must have a valid Presto license installed. See Registering the Presto License on page 14 for instructions.

You must also create a mashup project in Mashup Studio and add configuration to access Presto services. See online help in Mashup Studio for instructions on these steps.

Installing the Mashup Studio Eclipse Plug-in Locally

Before Starting This Task: you must have one of these platforms installed:

- Eclipse Platform 3.4 (Ganymede build)
- Eclipse Platform 3.3 (Europa build) and the WTP Feature 2.0. Install the WTP-all-in-one 2.0 package for your operating system for best results.
- Eclipse Platform 3.2 (Callisto build) and the WTP Feature 1.5.3. Install the WTP-all-in-one 1.5.3 package for your operating system for best results.
- Rational Software Architect 7.5 (packaged in Ganymede)

You must also have JDK 1.5 installed.

> **Note:** all Mashup Servers that you use to find services and debug mashups in Mashup Studio should also run in JDK 1.5.

For best results, add the Mashup Studio plug-in to a vanilla installation of the Ganymede, Europa or Callisto Eclipse builds.

The following instructions are for Eclipse 3.4:

Steps:

1. Download the ZIP file for the local Mashup Studio plug-in update from http://www.jackbe.com.
2. Extract the Mashup Studio plug-in update files from the ZIP you downloaded into any folder on your computer.
3. Open Eclipse and select **Help > Software Updates**.
4. In the Software Updates and Add-ons window, select the **Available Software** tab and click **Add Site**.
5. In the Add Site window, click **Local** and
   a. Find the folder where you have extracted the Mashup Studio plug-in.
   b. Click **OK**.
6. Select this new update site and the Mashup Studio feature and click **Install**.
7. Review the features selected for installation. Click **Next**.
8. Accept the license and click **Next**.
9. Click **Finish**.

   Installation of the Mashup Studio plug-in begins.
10. Once installation is finished, restart Eclipse when you are prompted.
11. Enlarge the default Eclipse configuration for memory in the *eclipse-install*`/eclipse.ini` file.

    Memory requirements are highly dependent on the host capacity and your environment. Suggested minimum settings include:

    - `-Xlauncher.XXmaxPermSize128m`
    - `-Xms256m`
    - `-Xmx512m`

    Restart Eclipse.

After Completing This Task: to work with Presto services in the mashup scripts you create in in Mashup Studio, you must have a valid Presto license installed. See Registering the Presto License on page 14 for instructions.

You must also create a mashup project in Mashup Studio and add configuration to access Presto services. See online help in Mashup Studio for instructions on these steps.

Installing the Presto Excel Connector

Before Starting This Task: you must have the following software installed:

- Microsoft Office 2003 (SP3) or Microsoft Office 2007
- Microsoft .NET Framework 2.0
- Office 2003 Primary Interop Assemblies or Office 2007 Primary Interop Assemblies
- COM Add-In Patch (for Office 2003 only)

The Presto Excel Connector allows you to publish Excel worksheets or ranges within a worksheet as a Presto service to share with other users, use in mashups or create mashlets. You can also invoke Presto services, pull the results into an Excel worksheet and get updates with the Presto Excel Connector.

Steps:

1. Download the Excel Connector from http://www.jackbe.com/ and extract the Zip file in any folder.

   If you have installed Presto, you can also find the installation files for the Excel Connector in the *presto-install*`/connectors/excel` folder.

2. Run the `setup.exe` file to start the Excel Connector installation wizard.
   a. Click **Next** once the Welcome Page opens in the installation wizard.
   b. If needed, change the default folder where you want to install the Excel Connector.

      This defaults to `c:\Program Files\JackBe\Presto Connect Excel Connector`.
   c. Select the **Everyone** option.

      The Excel Connector cannot be installed for a single user.
   d. Click **Next** and click **Next** again to confirm your installation choices.

      Installation begins.
   e. Once installation is complete, click **Close**.

3. Open Excel to verify that the Presto toolbar is now accessible:

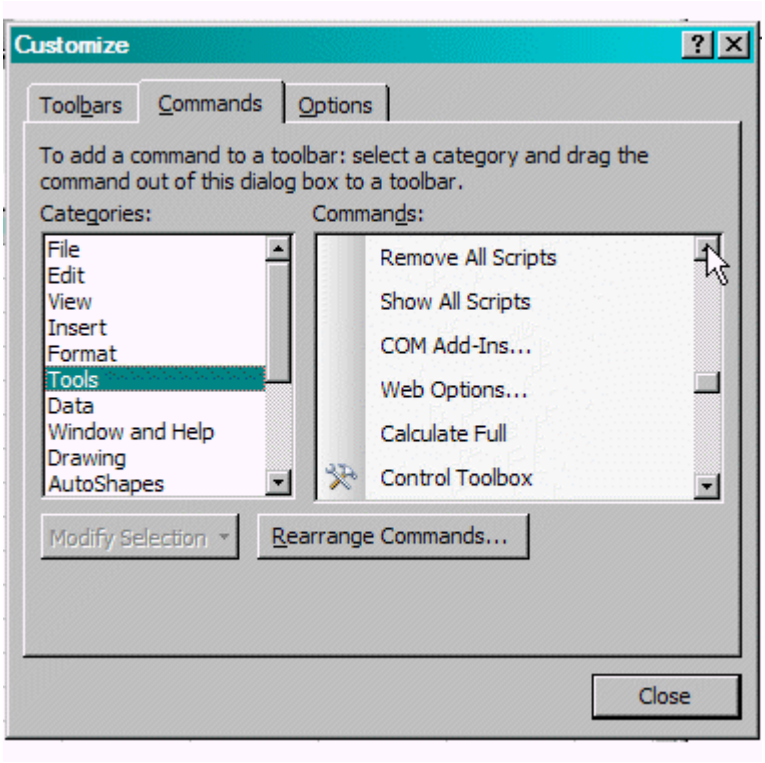
Note: the very first time, it may take 30 seconds or longer before the Presto Excel toolbar appears. If the toolbar does not appear, you can manually add the toolbar. See Manually Initializing the Presto Excel Toolbar on page 18 for instructions.

Manually Initializing the Presto Excel Toolbar

If the Presto Excel toolbar does not open automatically in Excel after installation, you can manually initialize the toolbar in Excel. Once it has been initialized, the Presto Excel toolbar will automatically appear in Excel.

Steps:

1. Select the **Tools > Customize** menu option.
2. Click the **Commands** tab and select **Tools** in the Categories pane.
3. Scroll through the commands and select **COM Add-Ins**.

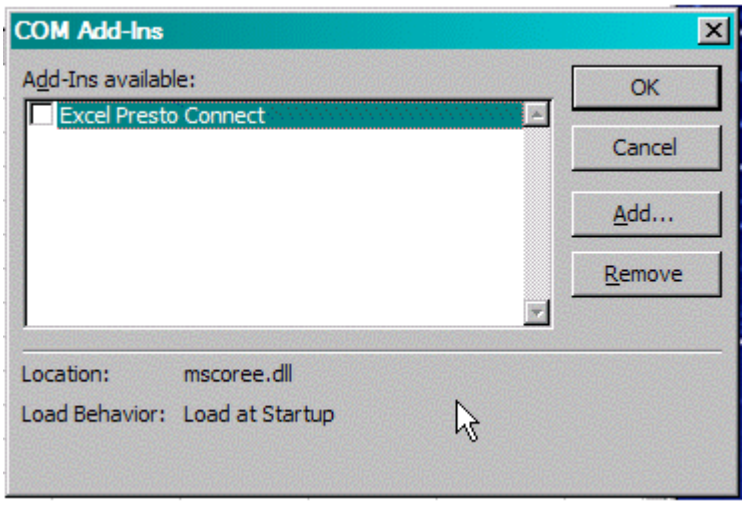


4. Drag **COM Add-Ins** from the Customize window up to the Excel menu and release it.

   This adds a **COM Add-Ins** menu to Excel.

5. Click the **COM Add-Ins** menu.

   The COM Add-Ins window opens and shows the Presto Excel Connector:



6. Select the **Excel Presto Connector** in the list and click **OK**.

   The Presto toolbar now appears in Excel. Right-click in the Excel toolbar area to hide or show the Presto toolbar.

Installing the Presto Portal Connector

Before Starting This Task: for Oracle installations, you must have both the Oracle Application Server 10g (10.1.3.0.0) and Oracle Containers for Java, v10.1.3.3 installed. The host must also have at least 2GB of RAM. You may also need to increase memory configuration for the JVM. See Deploying Presto in OC4J on page 33 for more information.

The Presto Portal Connector allows you to quickly create portlets for any service or mashlet published in Presto and add them to portal pages. The following installation packages are available for the Portal Connector:

- **JSR-168 Installation**: for any portal that is compliant with the JSR-168 Portlet standard. See Portal Connector Installation for JSR-168 Compliant Portals on page 20 for installation instructions.

  You can also use this installation package for the:

  - **WebLogic Portal**: see Portal Connector Installation for WebLogic on page 22 for installation instructions.
  - **Liferay Portal**: see Liferay documentation for installing a JSR-168 compliant portlet.

    Note: for Liferay 5.2.2, there is a known incompatibility with the Presto Portal Connector. See Presto 2.7.0 Release Notes for more information and a work around.

- **Oracle Installation**: for Oracle WebCenter and the Oracle Application Server 10g. See Portal Connector Installation for Oracle on page 21 for installation instructions

Portal Connector Installation for JSR-168 Compliant Portals

Steps:

1. If needed, update the amount of space allowed for portal preferences to a minimum of 2,000 characters.

   Preferences for Presto services and mashlets frequently require more space to support input parameters and other properties.

   This may require configuration changes in your portal application or changes to the SQL commands for the persistent store for your portal application.

   In JetSpeed, for example, you set the `maximizeOnEdit` property to `true` in the `pipelines.xml` configuration file. You also change the preference length with the `PREFS_PROPERTY_VALUE.PROPERTY_VALUE` property.

2. Get the `presto-jsr168.war` file for the Presto Portal Connector from the *`presto-install`*`/connectors/portalserver` folder.

   If you have not yet installed Presto in your environment, see Installing Presto Enterprise Edition on page 10 or Installing Presto Developer Edition on page 13 for instructions.

3. Deploy this WAR file in your application server and register it as a **portlet producer** following the instructions for your application server and portal.

   The installation and configuration steps are very different for each portal. Generally, you must deploy this in your application server. Some portal servers use an auto-deploy folder that you can simply copy the WAR file to.

But there may also be additional configuration you must complete. The recommended name and context for the Portal Connector are:

- Name = Presto Services Producer
- Context = prestoconnector

4. If needed, change the connection configuration to the Mashup Server for the Portal Connector.

   The connection information for the connector defaults to the local host using the default Tomcat port. You can change connection information as follows:

   a. Edit the `portlet.xml` configuration file in *app-server-home*/*application-name*/`presto-jsr168/WEB-INF`.

   b. Edit the <preference> named `serverUrl` and change the <value>.

   c. Save your changes.

Portal Connector Installation for Oracle

Steps:

1. Get the `presto-oracle.ear` file for the Presto Portal Connector from the *presto-install*`/connectors/portalserver` folder:

   If you have not yet installed Presto in your environment, see Installing Presto Enterprise Edition on page 10 or Installing Presto Developer Edition on page 13 for instructions.

2. For Oracle environments, increase Java memory parameters in startup scripts or other initialization files for the Oracle Application Server to these minimum recommendations:

   - -Xm512M
   - -Xmx1024M
   - -XX:PermSize=256M
   - -XX:maxPermSize=512M

3. If it is not running, start the Oracle Application Server. See Oracle documentation for instructions.

4. Log into Oracle Enterprise Manager, the OC4J administration console.

5. Choose to deploy `presto-oracle.ear` as an application and automatically create a deployment plan.

6. Assign an **Application Name**, such as Presto Services Producer.

7. Assign a **context**, such as prestoconnector.

8. Accept the default deployment plan, or change as needed, and deploy the application.

   This creates two WSRP URL endpoints to the WSDLs for the portlet producer for Presto Portal Connector:

   - http://*oracle-app-server:port*/*connector-context*/portlets/wsrp2?WSDL
   - http://*oracle-app-server:port*/*connector-context*/portlets/wsrp1?WSDL

9. Change the connection configuration to the Mashup Server for the Portal Connector.

The connection information for the connector defaults to the local host using the default Tomcat port. Except for environments where the portal server, connector and Mashup Server are all hosted on the same computer, you should change connection information as follows:

a. Edit the `portlet.xml` configuration file in *`app-server-home/application-name`*`/presto-wsrp/WEB-INF`.

b. Edit the <preference> named `serverUrl` and change the <value>.

c. Save your changes.

10. Register the Presto Portal Connector's WSRP portlet producer, using the appropriate URL endpoint, in your portal application.

    You may do this through an IDE or through a browser. Registering the WSDL for the Presto Portal Connector allows you to access the portlet producer in your portal application and add portlets or mashlets based on Presto services to portal pages.

Portal Connector Installation for WebLogic

This procedures installs the Presto Portal Connector as a portlet producer using WSRP. The Portal Connector can be hosted locally with WebLogic or remotely. You can install the Portal Connector as a local, JSR-168 portlet producer, if needed.

Steps:

1. Change the space allowed for portlet preferences to a minimum of 2,000 characters.

   - If you are using a persistent store with the WebLogic Portal, change the `PF_PORTLET_PREFERENCE_VALUE.PREFERENCE_VALUE` column length using SQL commands.
   - If you are using the PointBase in-memory database supplied with WebLogic Portal, use the PointBase Administration Console to update the `PF_PORTLET_PREFERENCE_VALUE.PREFERENCE_VALUE` column.

   Preferences for Presto services and mashlets frequently require more space to support input parameters and other properties.

2. If needed, start the WebLogic server and your portal application. See WebLogic documentation for instructions.

3. Import the JSR-168 installation package for the Presto Portal Connector:

   a. Open the JSR-168 WAR Import Utility.

   b. Find the `presto-jsr168.war` file in the *`presto-install`*`/connectors/portalserver` folder.

      If you have not yet installed Presto in your environment, see Installing Presto Enterprise Edition on page 10 or Installing Presto Developer Edition on page 13 for instructions.

   c. Enter a name for the new application. The name `presto-jsr168` is assumed in all subsequent instructions.

   d. Clear the auto-deploy options.

   e. Click **Perform Import**.

   This generates an EAR file, `presto-jsr168.ear` (or *`appl-name`*`.ear`), which you will deploy in the WebLogic Server.

4. If it is not already open, start the WebLogic Administration Console and log in.
5. Install the Portal Connector as a new application using the EAR file generated previously.

   You can use the default deployment options, or change them as needed.
6. Verify that the WSDL file is accessible from `http://app-server:port/app-name/producer?WSDL`

   For example:

   `http://myWL.com:7041/presto-jsr168/producer?WSDL`.
7. Add the Portal Connector as a remote portlet producer:
   a. If needed, start the WebLogic Portal Administration Console and log in.
   b. Select **Remote Producers** in **Portal Resources > Library**.
   c. Click **Add Producer**.
   d. Find the Portal Connector WSDL.
   e. Complete the rest of the Add Producer wizard and save.
8. Add the Presto portlets from the Portal Connector to your portal application:
   - Presto Service
   - Presto Mashlet

These portlets are now available to be added to portal pages and configured for specific Presto services or mashlets.

Installing the Presto Connect for C# Library

Before Starting This Task: you must have either Visual Studio .NET 2005 or the Microsoft .NET Framework 2.0 installed. See .NET Framwork downloads.

Presto Connect for C# (PC4CS) is a C# library that allows C# server applications or portlets for portals to connect to Presto and invoke Presto services. This connector is only available for Windows operating systems.

Steps:

1. Install Presto (see Installing Presto Enterprise Edition on page 10 or Installing Presto Developer Edition on page 13 for instructions).
2. Run the installation program for PC4CS at `presto-install/connectors/api/csharp/setup.exe`.
   a. Click **Next** once the Welcome Page opens in the installation wizard.
   b. If needed, change the default folder where you want to install PC4CS.

      This defaults to `c:\Program Files\JackBe\PC4CSharp`.
   c. If needed. select the **Everyone** option to allow all other users of this computer to use PC4CS.
   d. Click **Next** and click **Next** again to confirm your installation choices.

      Installation begins.
   e. Once installation is complete, click **Close**.

3. Add the PC4CS assembly to your .NET project:
   a. In Visual Studio, right-click **References** and select **Add References**.
   b. Browse to find the folder where you installed PC4CS and select the `JackBe.PrestoConnect.Net.dll` assembly.

Installing the Presto Connect for Visual Basic (PC4VBA) Library

Before Starting This Task: you must have either Visual Studio .NET 2005 or the Microsoft .NET Framework 2.0 installed. See .NET Framwork downloads.

Presto Connect for Visual Basic (PC4VBA) is a C# library that allows Windows Automation-enabled applications to connect to Presto and invoke Presto services using Visual Basic or other Windows scripting languages. This API is only available for Windows operating systems.

Steps:

1. Install Presto (see Installing Presto Enterprise Edition on page 10 or Installing Presto Developer Edition on page 13 for instructions).
2. Install Presto Connect for C# (PC4CS). See Installing the Presto Connect for C# Library on page 23 for instructions

   vb uses c# api
3. Run the installation program for PC4VBA at *presto-install*`/connectors/api/automation/setup.exe`.
   a. Click **Next** once the Welcome Page opens in the installation wizard.
   b. If needed, change the default folder where you want to install PC4CS.

      This defaults to `c:\Program Files\JackBe\Presto Connect for Automation`.
   c. If needed. select the **Everyone** option to allow all other users of this computer to use PC4VBA.
   d. Click **Next** and click **Next** again to confirm your installation choices.

      Installation begins.
   e. Once installation is complete, click **Close**.

Configuring the Presto Server with Custom Ports

The Presto Administration Server provides administration for the Presto Mashup Server. If you change the ports that were configured at installation for either of these servers or you need to host multiple Presto Mashup Servers on one host, you must update configuration in both servers to provide proper connections and then restart both servers. You may also need to change ports for the Presto Repository and for Tomcat.

> **Note:** before you update configuration files, you must start the Presto Mashup Server at least once. This causes Tomcat to extract the contents of WAR files. If the Presto Administration Server is deployed separately from the Mashup Server, you must also start this once.

Application Server Ports

The following properties in the configuration files indicated must match:

Configuration File	Property
web-apps-home/presto/WEB-INF/classes/presto.config	presto.port
web-apps-home/adminserver/WEB-INF/classes/adminserver.config	proxy.port

Note: if the Presto Administration Server is configured to work with a load balancer, change configuration in the load balancer instead of the Presto Administration Server.

You **may** also need to update the *presto-install*/jbenv.bat script, for Windows, or the *presto-install*/jbenv.sh script, for Linux, OS/X or UNIX. These scripts set various environmental variables and are called by many Presto scripts. Change the **APPSERVER_PORT** environmental variable to the new port number.

Ports for JMX With No Multicasting

The Presto Administration Server uses port 8282, by default for JMX if clustering is enabled but multicasting is not. If you need to change this default, update the following configuration files and properties:

Configuration File	Property
web-apps-home/presto/WEB-INF/classes/subagent.config	esd.serviceUrl
web-apps-home/adminserver/WEB-INF/classes/adminserver.config	node.list

Multicasting Ports

If you are using clusters of Presto Mashup Servers and you have configured the Presto Administration Server to use multicasting for active or passive discovery of cluster nodes, you may also need to change subnet and port configuration for multicast. Update the following configuration files and properties:

Configuration File	Property
web-apps-home/presto/WEB-INF/classes/subagent.config	esd.discovery.responder.multicastgroup
web-apps-home/adminserver/WEB-INF/classes/adminserver.config	discoveryclient.multicastgroup discoverymonitor.multicastgroup

Configuration File	Property
web-apps-home/presto/WEB-INF/classes/subagent.config	esd.discovery.responder.multicastport
web-apps-home/adminserver/WEB-INF/classes/adminserver.config	discoveryclient.multicastport discoverymonitor.multicastport

Presto Repository Ports

If you are running multiple instances of the Mashup Server in one host with separate instances of the Presto Repository, you must have different ports for each database instance. For the Presto Repository, you must update the following ports:

Configuration File	Property
web-apps-home/presto/WEB-INF/classes/jpox.properties	javax.jdo.option.ConnectionURL
web-apps-home/presto/WEB-INF/classes/rdsJdbc.properties If you use Mashup Studio, you must also update this property in this file in the *eclipse-install*/plugins/com.jackbe.mashup.studio.lib_*current-version*/prestoResources folder.	jdbc.url
web-apps-home/presto/WEB-INF/classes/spreadsheetJdbc.properties If you use Mashup Studio, you must also update this property in this file in the *eclipse-install*/plugins/com.jackbe.mashup.studio.lib_*current-version*/prestoResources folder.	jdbc.url
web-apps-home/presto/WEB-INF/classes/userRepository.properties If you use Mashup Studio, you must also update this property in this file in the *eclipse-install*/plugins/com.jackbe.mashup.studio.lib_*current-version*/prestoResources folder.	jdbc.url
presto-install/prestorepository/hsqldb/server.bat	-port option
presto-install/prestorepository/hsqldb/server.sh	-port option

Configuration File	Property
presto-install/prestorepository/hsqldb/sqltool.rc	url

Note: if you also use Mashup Studio, you must also update Presto Repository port information in Mashup Studio configuration.

Tomcat Application Server Port

If you are running multiple instances of the Mashup Server in one host, you must have separate application server instances for each. For Tomcat, you must update the following ports:

Configuration File	Element
tomcat-install/conf/server.xml	<Server> to set the command port <Connector> for the HTTP port <Connector> for the HTTPS port

If Presto is deployed in other application servers, see documentation for your application server for information on port requirements.

Configuring the Presto Server to Work with a Proxy Server

Presto is currently **only** compatible with HTTP proxy servers.

If you have a proxy server in your environment, you **must** add configuration information to the Mashup Server for the proxy server. See Configuring the Mashup Server for a Proxy Server on page 27 for instructions.

You may also need to add configuration information to the Admin Server for the proxy server if it is deployed separately from the Mashup Servers it manages. See Configuring the Admin Server for a Proxy Server on page 28 for instructions.

Note: you can also define a *whitelist* of addresses that do not require proxy server access. See Presto Administration documentation in the Presto Library for more information.

Configuring the Mashup Server for a Proxy Server

Steps:

1. Start the Mashup Server.

   See Starting and Stopping the Presto Mashup Server on page 42 for instructions.
2. Open the Admin Console at http://*appl-server*:*port*/adminserver.
3. Enter your **Username** and **Password** and click Login.

   Initially, you can use the default administration account:

- **username** = admin
- **password** = adminadmin

4. Click the Mashup Server node you want to change in the navigation pane.
5. Click **Parameter Management**.
6. Double-click to edit the following global parameters:
   - **presto.httpProxy.set** = true. This is required.
   - **presto.httpProxy.host** = the host name or IP address for the proxy server. This is required.
   - **presto.httpProxy.port** = the port number for the proxy server. This is required.
   - **presto.httpProxy.user** = the user name to the proxy server. This is only required if your proxy server requires credentials.

     To use dynamic credentials for the current user, enter $presto_username.
   - **presto.httpProxy.password** = the password to the proxy server. This is only required if your proxy server requires credentials.

     To use dynamic credentials for the current user, enter $presto_password.
7. If needed, define a whitelist of addresses that should not use the proxy server. See the Presto Library for instructions.
8. If your proxy server is running in a Windows NT Domain, set the following configuration properties:
   - **presto.httpProxy.credentialsType** = NTLM.
   - **presto.httpProxy.ntDomain** = the name of the Windows NT Domain for your proxy server.
9. Log out of the Admin Console.
10. Stop and restart the Mashup Server to apply these changes.

Configuring the Admin Server for a Proxy Server

Steps:

1. In any text editor, open this configuration file:

   web-apps-home/adminserver/WEB-INF/classes/adminserver.config
2. Set the following configuration properties:
   - **httpProxy.set** = true. This is required.
   - **http.Proxy.host** = the host name or IP address for the proxy server. This is required.
   - **http.Proxy.port** = the port number for the proxy server. This is required.
   - **httpProxy.user** = the user name to the proxy server. This is only required if your proxy server requires credentials.

     To use dynamic credentials for the current user, enter $presto_username.
   - **httpProxy.password** = the password to the proxy server. This is only required if your proxy server requires credentials.

To use dynamic credentials for the current user, enter $presto_password.

3. If your proxy server is running in a Windows NT Domain, set the following configuration properties:
   - **httpProxy.credentialsType** = NTLM.
   - **httpProxy.ntDomain** = the name of the Windows NT Domain for your proxy server.
4. Save your changes to the configuration file.
5. Stop and restart the Admin Server to apply these changes. See Starting and Stopping the Admin Server on page 43 fo instructions.

Deploying Presto in Other Application Servers

Presto is installed with Tomcat as its default servlet container, but it is compatible with any compliant Java Enterprise Edition application server. Instructions for deploying Presto in the most popular application servers are included in this section.

> **Note:** to ensure access to Presto configuration files, Presto web applications must be fully exploded and remain exploded when they are deployed.

You should first install Presto with Tomcat, the default container. See Installing Presto Enterprise Edition on page 10 or Installing Presto Developer Edition on page 13 for instructions. Then see these topics for instructions on the basic additional configuration or deployment requirements:

- Deploying Presto in the JBoss Application Server on page 31
- Deploying Presto in OC4J on page 33
- Deploying Presto in WebLogic on page 35
- Deploying Presto in WebSphere on page 37

Deploying Presto in the JBoss Application Server

Before Starting This Task: install Presto with Tomcat. See Installing Presto Enterprise Edition on page 10 or Installing Presto Developer Edition on page 13 for instructions. The Presto Repository must also be empty. If you have published services or mashlets or added users or roles, you must clean the repository before continuing. See Rebuilding the Presto Repository for instructions.

Presto is compatible with the JBoss Application Server, version 4.2.X. This procedure assumes that JBoss is using 8080, the default port number. If not, see Configuring the Presto Server with Custom Ports on page 24 for additional configuration requirements.

Steps:

1. For each of the WAR files listed below, extract the WAR contents to a new folder with the same name as the WAR file, including the file extension (shown below).

   > **Tip:** rather than starting the Mashup Server to expand these WAR files, use a zip or archive tool to expand them instead. This avoids setting some Presto configuration properties to paths in Tomcat which you must later correct.

   These WAR files are in the `web-apps` folder for the Tomcat identified during Presto installation. The default installed location is:
   `presto-install``/server/apache-tomcat-5.5-20/webapps`

WAR File	Exploded Folder Name
`presto.war`	`presto.war`
`adminconsole.war`	`adminconsole.war`

WAR File	Exploded Folder Name
adminserver.war	adminserver.war
mashboard.war	mashboard.war
mashlets.war	mashlets.war
mashupsamples.war	mashupsamples.war
serviceexplorer.war	serviceexplorer.war
static.war	static.war
wires.war	wires.war
wireshelp.war	wireshelp.war

2. Copy the folders containing the extracted WAR contents to the *jboss-home*/server/default/deploy folder or a custom deployment folder you have configured.

   Tip: it is a good practice to deploy the presto.war exploded folder first. Once that is successfully deployed, deploy the remaining Presto web applications.

3. If you previously expanded WAR files by starting the Mashup Server, delete the following configuration properties from the presto.config file in the *web-apps-home*/presto/WEB-INF/classes folder:

   - **mashlets.path**
   - **webAppRoot**

   These properties will be added automatically with the correct paths for JBoss when you start the Mashup Server.

4. If it is not running, start the Presto Repository. See Starting or Stopping the Presto Repository on page 41 for instructions.

5. Increase the JVM memory configuration in the startup script for JBoss to:

   - -Xms512m
   - -Xmx1024m
   - -XX:PermSize=128M
   - -XX:MaxPermSize=256M

6. Start the JBoss server using these parameters:

   - **-Djboss.bind.address=***host-IP-address*. This parameter is required to ensure that the Admin Server can connect to the MBeanServer using the host's IP address.

     You can use -Djboss.bind.address=0.0.0.0 to have JBoss bind to localhost, the IP address and the host name.

- **-Djavax.xml.soap.MessageFactory=**org.apache.axis.soap.MessageFactory-Impl. This parameter is required because Presto uses a different implementation that the JBoss default.
- **-Djavax.xml.soap.SOAPFactory=**org.apache.axis.soap.SOAPFactoryImpl. This parameter is required because Presto uses a different implementation that the JBoss default.

It is a good practice to create a script to start JBoss with these parameters in the *jboss-home*/bin folder. A Windows script, for example, would look something like this:

```
call run.bat -Djboss.bind.address=0.0.0.0
-Djavax.xml.soap.MessageFactory=org.apache.axis.soap.Message-
FactoryImpl -Djavax.xml.soap.SOAPFac-
tory=org.apache.axis.soap.SOAPFactoryImpl
```

You can now access Presto applications using the JBoss host and the default 8080 port number. See Opening Presto Applications on page 44 for URLs.

Deploying Presto in OC4J

Before Starting This Task: install Presto with Tomcat. See Installing Presto Enterprise Edition on page 10 or Installing Presto Developer Edition on page 13 for instructions.The Presto Repository must also be empty. If you have published services or mashlets or added users or roles, you must clean the repository before continuing. See Rebuilding the Presto Repository for instructions.

Presto is compatible with Oracle Containers for Java (OC4J) version 10.0.X.

Steps:

1. If it is not running, start the Presto Repository. See Starting or Stopping the Presto Repository on page 41 for instructions.
2. Copy the `tools.jar` file from your JDK installation to the `lib` folder for OC4J.

   This JAR must be in the classpath for Presto to enable Presto to compile Java classes for the Database services that users publish in Presto.
3. Add library configuration to OC4J for the `tools.jar` file.

   You add a <library> element to *oc4j-install*`/j2ee/home/config/application.xml` directly under the scheduler supporting classes. The path for <library> must point to the `tools.jar` file that you have copied to OC4J in the previous step. For example:

   ```
   ...
     <!-- Scheduler supporting classes -->
     <library path="../../home/lib/scheduler.jar" />
     <library path="../../home/lib/tools.jar" />
   ...
   ```
4. Increase the JVM memory configuration in the startup script for OC4J to a recommended minimum of:
   - -Xms512m
   - -Xmx1024m

- -XX:PermSize=128M
- -XX:MaxPermSize=256M

5. Override the default XML parser for OC4J. Instructions for this step are available at http://www.oracle.com/technology/tech/java/oc4j/1013/how_to/how-to-swapxml.

   The default Oracle XML parser does not properly handle <?xml-stylesheet ?> processing instructions that are included in responses for some RSS and WSDL services.

6. Define a shared library for Xalan for OC4J. Instructions on how to define a shared library are available at http://www.oracle.com/technology/tech/java/oc4j/1013/how_to/how-to-swapxmlparser/doc/readme.html#install-publish (the example uses Xerces parser JAR files). Instead, create a library for Xalan 2.7.0 using the *web-apps-home*`/presto/lib/xalan.jar` file.

   Presto uses this shared library for XML transformations. The default transformer in OC4J can cause errors with some WSDL services.

7. Start the OC4J Server. See Oracle documentation for instructions.

8. Log into Enterprise Manager, the OC4J administration console.

9. For each of the WAR files listed below, you must deploy an application and create a new deployment plan:

   These WAR files are in the `web-apps` folder for the Tomcat identified during Presto installation. The default installed location is: *presto-install*`/server/apache-tomcat-5.5-20/webapps`

WAR File	Application Name	Other Tasks?
`presto.war`	presto	You must configure the classpath.
`adminconsole.war`	adminconsole	No.
`adminserver.war`	adminserver	No.
`mashboard.war`	mashboard	No.
`mashlets.war`	mashlets	No.
`mashupsamples.war`	mashupsamples	No.
`serviceexplorer.war`	serviceexplorer	No.
`static.war`	static	No.
`wires.war`	wires	No.
`wireshelp.war`	wireshelp	No.

   a. For each WAR file, choose to deploy the WAR.

   b. For each WAR file, choose to automatically create a new deployment plan.

   c. Assign the application name shown above.

d. For `presto.war`, configure classloading to use Presto libraries in the classpath rather than importing these Oracle libraries: `oracle.jwsdl` and `oracle.toplink`.

e. Confirm the deployment.

10. Change port configuration for the Mashup Server and Admin Server in these files:

- **presto.port** = 8888 in `presto.config` in the *`oc4j-install`*`/j2ee/home/applications/presto/presto/WEB-INF/classes` folder.
- **proxy.port** = 8888 in `adminserver.config` in the *`oc4j-install`*`/j2ee/home/applications/adminserver/adminserver/WEB-INF/classes` folder.

Use the appropriate port number for this OC4J server (8888 is the default).

11. If you want to register the sample services or sample mashups shipped with Presto, update port information in *`presto-install`*`/jbenv.bat`, for Windows, or *`presto-install`*`/jbenv.sh` for Linux, OS/X or UNIX.

These scripts set various environmental variables and are called by many Presto scripts. You must change the **APPSERVER_PORT** environmental variable to 8888 or the appropriate port number for this OC4J server.

12. Restart OC4J.

You can now access Presto applications using the OC4J host and port number (8888 is the default). See Opening Presto Applications on page 44 for URLs.

Deploying Presto in WebLogic

Before Starting This Task: install Presto with Tomcat. See Installing Presto Enterprise Edition on page 10 or Installing Presto Developer Edition on page 13 for instructions. The Presto Repository must also be empty. If you have published services or mashlets or added users or roles, you must clean the repository before continuing. See Rebuilding the Presto Repository for instructions.

Presto is compatible with WebLogic version 10.0 using the Sun JDK.

Steps:

1. Configure the WebLogic domain for Presto with the Sun JDK.
2. Copy the `tools.jar` file from your JDK installation to the `lib` folder for WebLogic.

   This JAR must be in the classpath for Presto to enable Presto to compile Java classes for the Database services that users publish in Presto.
3. In the startup scripts for WebLogic, set an environmental variable JAVA_HOME to point to the Java version used to create the WebLogic domain for Presto.
4. Increase the JVM memory configuration in the startup script for WebLogic to a recommended minimum of:
   - -Xms512m
   - -Xmx1024m
   - -XX:PermSize=128M
   - -XX:MaxPermSize=256M

5. For each of the WAR files listed below, extract the WAR contents to a folder with the name shown below:

   Tip: rather than starting the Mashup Server to expand these WARs, use a zip or archive tool instead. This avoids setting some Presto configuration properties to paths in Tomcat which you must later correct.

   These WAR files are in the `web-apps` folder for the Tomcat server identified during Presto installation. The default installed location is: *`presto-install`*`/server/apache-tomcat-5.5-20/webapps`

WAR File	Exploded Folder Name
`presto.war`	presto
`adminconsole.war`	adminconsole
`adminserver.war`	adminserver
`mashboard.war`	mashboard
`mashlets.war`	mashlets
`mashupsamples.war`	mashupsamples
`serviceexplorer.war`	serviceexplorer
`static.war`	static
`wires.war`	wires
`wireshelp.war`	wireshelp

6. Copy the exploded folders from the previous step to the *`weblogic-domain-base`*`/autodeploy` folder.
7. If you previously expanded WAR files by starting the Mashup Server, delete the following configuration properties from the `presto.config` file in the *`web-apps-home`*`/presto/WEB-INF/classes` folder:
   - **mashlets.path**
   - **webAppRoot**

   These properties will be added automatically with the correct paths for WebLogic when you start the Mashup Server.
8. Add a `weblogic.xml` configuration file to the *`weblogic-domain-base`*`/autodeploy/presto/WEB-INF` folder for the `presto` web application from previous steps.

   This configuration file should contain the following content:

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE weblogic-web-app PUBLIC "-//BEA Systems, Inc.//DTD Web Application
8.1/EN" >
```

```
<weblogic-web-app>
  <container-descriptor>
    <prefer-web-inf-classes>true</prefer-web-inf-classes>
  </container-descriptor>
</weblogic-web-app>
```

9. Turn off the enforcement for valid basic authentication in the *weblogic-domain-base*/config/config.xml file.

   Add the following element **within** the <security-configuration> element near the end:

```
<enforce-valid-basic-auth-credentials>
  false
</enforce-valid-basic-auth-credentials>
```

10. Change port configuration for the Mashup Server and Admin Server in these files:

    - **presto.port** = 7001 in presto.config in the *weblogic-domain-base*/autodeploy/presto/WEB-INF/classes folder.
    - **proxy.port** = 7001 in adminserver.config in the *weblogic-domain-base*/autodeploy/adminserver/WEB-INF/classes folder.

    Use the appropriate port number for this WebLogic server (7001 is the default).

11. If you want to register the sample services or sample mashups shipped with Presto, update port information in *presto-install*/jbenv.bat, for Windows, or *presto-install*/jbenv.sh for Linux, OS/X or UNIX.

    These scripts set various environmental variables and are called by many Presto scripts. You must change the **APPSERVER_PORT** environmental variable to 7001 or the appropriate port number for this WebLogic server.

12. If it is not running, start the Presto Repository. See Starting or Stopping the Presto Repository on page 41 for instructions.

13. Restart the WebLogic server.

    You can now access Presto applications using the WebLogic host and port number (7001is the default). See Opening Presto Applications on page 44 for URLs.

Deploying Presto in WebSphere

Before Starting This Task: install Presto with Tomcat. See Installing Presto Enterprise Edition on page 10 or Installing Presto Developer Edition on page 13 for instructions. The Presto Repository must also be empty. If you have published services or mashlets or added users or roles, you must clean the repository before continuing. See Rebuilding the Presto Repository for instructions.

Presto is compatible with WebSphere version 6.1.X using the IBM JDK 5.0 with one exception. JRuby scripting in mashup scripts is not supported.

Steps:

1. If it is not running, start the Presto Repository. See Starting or Stopping the Presto Repository on page 41 for instructions.
2. Add wsdl4j-1.6.2.jar as an endorsed library for WebSphere:

   a. If needed, create a *websphere-appserver-home*/java/jre/lib/endorsed folder.

   b. Copy wsdl4j-1.6.2.jar from the *presto-install*/server/*apache-version*/webapps/presto/WEB-INF/lib folder to the endorsed folder for WebSphere (*websphere-appserver-home*/java/jre/lib/endorsed).

3. Increase the JVM memory configuration in the startup script for WebSphere to a recommended minimum of:
   - -Xms512m
   - -Xmx1024m
   - -XX:PermSize=128M
   - -XX:MaxPermSize=256M
4. Start the WebSphere Application Server. See WebSphere documentation for instructions.
5. Open the WebSphere Administration Console in your browser using the appropriate server and port address.

   The default URL is http://localhost:9060/ibm/console.
6. From the console task list, expand the Application task and choose to install a new application.
7. Complete the application installation preparation:

   a. Set the **Local file system** option and find the presto.war file in the *presto-install*/server/*apache-version*/web-apps folder.

   b. Enter presto as the context root.

   c. Set the **Prompt me only when additional information is required** option.

   d. Click **Next**.
8. Leave all the default Installation options in the next page and click **Next**.
9. In the Map modules page, check presto.war as the module and click **Next**.
10. In the Map virtual hosts page, check presto.war as the module and click **Next**.
11. Click **Finish** in the Summary page to begin the installation.

    Messages for the progress of installation are displayed.
12. Once installation is complete, click the **Save directly to master configuration** link.

    The Enterprise Applications page open displaying the status of all web applications deployed in WebSphere.
13. Select presto.war and click **Start** to start the Mashup Server.
14. Repeat the application installation steps for the additional Presto web applications show below:
    - adminconsole.war
    - adminserver.war
    - mashboard.war
    - mashlets.war

- mashupsamples.war
- serviceexplorer.war
- static.war
- wires.war
- wireshelp.war

15. Change port configuration for the Mashup Server and Admin Server in these files:

    - **presto.port** = 9080 in `presto.config` in the *`websphere-appserver-home`*`/profiles/`*`profile-name`*`/installedApps/presto.war.ear/presto.war/WEB-INF/classes` folder.
    - **proxy.port** = 9080 in `adminserver.config` in the *`websphere-appserver-home`*`/profiles/`*`profile-name`*`/installedApps/adminserver.war.ear/adminserver.war/WEB-INF/classes` folder.

    Use the appropriate port number for this WebSphere server (9080 is the default).

16. If you want to register the sample services or sample mashups shipped with Presto, update port information in *`presto-install`*`/jbenv.bat`, for Windows, or *`presto-install`*`/jbenv.sh` for Linux, OS/X or UNIX.

    These scripts set various environmental variables and are called by many Presto scripts. You must change the **APPSERVER_PORT** environmental variable to 9080 or the appropriate port number for this WebSphere server.

You can now access Presto applications using the WebSphere host and port number (9080 is the default). See Opening Presto Applications on page 44 for URLs.

Starting Presto and Accessing Presto Applications

Once you have installed Presto and completed any required configuration, you can start Presto servers. See these topics for instructions:

- Starting or Stopping the Presto Repository on page 41
- Starting and Stopping the Presto Mashup Server on page 42
- Starting and Stopping the Presto Event Connector on page 43.

You must log in to Presto to access any Presto application, with the exception of Mashup Studio. See Logging In to Presto on page 44. See Opening Presto Applications on page 44 for information on accessing Presto applications and the Mashup Server home page.

Starting or Stopping the Presto Repository

The Presto Repository is the database that the Presto Mashup Server uses to store service and mashlet metadata. This database also stores your license for Presto. If you are using the default User Repository, user and role data is also stored in this database.

The database must be running before you can start the Presto Mashup Server.

> **Note:** you must manually start and stop the Presto Repository when it is installed in the default database shipped with Presto.
>
> If you have install the Presto Repository in a different database, it may be possible to configure the database to start automatically instead. Be sure to add the Presto schemas before starting the Presto Mashup Server.

Manually Starting the Presto Repository in Windows

Steps:

- To start the Presto Repository in the default database, run this batch script:

  `presto-install/prestorepository/hsqldb/server.bat`

- To start the Presto Repository in another database, use the menus or scripts for that database.

Manually Stopping the Presto Repository in Windows

Steps:

- To stop the Presto Repository in the default database, run this batch script:

  `presto-install/prestorepository/hsqldb/shutdown.bat`

- To stop the Presto Repository in another database, use the menus or scripts for that database.

Manually Starting the Presto Repository in Linux, OS/X or UNIX

Steps:

- To start the Presto Repository in the default database, enter this command in a terminal window:

```
% presto-install/prestorepository/hsqldb/server.sh
```

- To start the Presto Repository in another database, use the scripts for that database.

Manually Stopping the Presto Repository in Linux, OS/X or UNIX

Steps:

- To stop the Presto Repository in the default database, enter this command in a terminal window:

  ```
  % presto-install/prestorepository/hsqldb/shutdown.sh
  ```

- To stop the Presto Repository in another database, use the scripts for that database.

Starting and Stopping the Presto Mashup Server

Presto applications, except for the Mashup Studio, depend on the Mashup Server, which in turn depends on the Presto Repository. Some specific features in the Mashup Studio also connect and use the Mashup Server.

> Note: the startup and shutdown scripts mentioned in this topic use scripts to start or shutdown Tomcat. If Tomcat is installed as an executable program (tomcat.exe), you must modify these Presto scripts for the Mashup Server to make them work correctly for your environment. See Modifying Server Scripts for instructions.

Starting the Mashup Server

Steps:

1. If the Presto Repository is not running, start the database. See Starting or Stopping the Presto Repository on page 41 for instructions.
2. Do one of the following to start the Mashup Server:
   - For Windows systems, enter this command in a command window:

     ```
     % presto-install-folder/mashupserver/startPresto.bat
     ```

   - For Linux, OS/X or UNIZ systems, enter this command in a terminal window:

     ```
     % presto-install-folder/mashupserver/startPresto.sh
     ```

   - Start the application server instance for the Mashup Server.

Once started, the Mashup Server home page is available at http://*app-server:port*/presto where you can access Admin Console, Service Explorer, Wires, Presto Connectors, Chained Service configuration or Presto documentation.

Stopping the Mashup Server

Steps:

1. Do one of the following:
   - For Windows systems, enter this command in a command window:

     ```
     % presto-install-folder/mashupserver/stopPresto.bat
     ```

   - For Linux, OS/X or UNIX systems, enter this command in a terminal window:

     ```
     % presto-install-folder/mashupserver/stopPresto.sh
     ```

- Stop the application server instance for the Mashup Server.

2. If desired, stop the Presto Repository. See Starting or Stopping the Presto Repository on page 41 for instructions.

Starting and Stopping the Admin Server

When the Admin Server is hosted with the Mashup Server, it starts up and shuts down automatically when you start or shut down the Mashup Server.

Starting the Admin Server Manually

If you have deployed the Admin Server separately, use these scripts to start it based on your operating system:

- For Windows environments, use *presto-install*`/adminserver/startAdminServer.bat`
- For Linux, OS/X or UNIX environments, use *presto-install*`/adminserver/startAdminServer.sh`

Stopping the Admin Server Manually

Use these scripts to stop the Admin Server based on your operating system:

- For Windows environments, use *presto-install*`/adminserver/stopAdminServer.bat`
- For Linux, OS/X or UNIX environments, use *presto-install*`/adminserver/stopAdminServer.sh`

Starting and Stopping the Presto Event Connector

Starting the Event Connector in Windows

Steps:

- In a command window, run the `prestoec.bat` script in the *presto-install*`/connectors/event/bin` folder.

  By default, the Event Connector is available on port 9090.

Stopping the Event Connector in Windows

Steps:

- Open the command window for the Event Connector and press [Ctrl]+[C].

Starting and Stopping the Event Connector in OS/X or Linux

Steps:

1. In a command or terminal window, move to the *presto-install*`/connectors/event/bin` directory.
2. Enter this command with the appropriate option to start, stop or restart the server:

```
prestoec.sh start | stop | restart
```

The Event Connector is available on port 9090 by default.

Logging In to Presto

You must log into Presto before you can open any Presto application, except for Mashup Studio. Other software must also provide valid user credentials to invoke published Presto services or mashups that require authentication. Services and mashups can also allow anonymous access.

The Presto Login page opens automatically when you open any Presto application or access the Mashup Server home page.

Steps:

1. Enter your Presto user name.

   If you have just installed Presto, use the default user name: admin.

2. Enter your Presto password.

   If you have just installed Presto, use the default password: adminadmin.

3. Click **Login**.

   The appropriate Presto application page opens.

See also Common Problems Opening Presto Applications or Logging In on page 46.

It is also a good practice to change the password for the default admin account. See Presto Administration tasks in the Presto Library for instructions.

Opening Presto Applications

For all Presto applications, except the Mashup Studio, the Mashup Server must be running before you can log in and begin working in these applications. See Starting and Stopping the Presto Mashup Server on page 42 and Logging In to Presto on page 44 for instructions. The Admin Server must also be running before you can access the Admin Console.

The applications that you may use to work with Presto include:

Wires	For business users or developers, Wires allows you to easily create simple mashups as blocks and wires in a graph. To open Wires, either: ▸ Enter http://*app-server:port*/wires in a browser. ▸ Click **create mashups** from the Mashup Server home page.
Mashup Studio	An Eclipse plug-in for developers, Mashup Studio allows you to develop intermediate or advanced mashups using an XML syntax. Install this plug-in in Eclipse and open the Mashup Perspective.

Service Explorer	For administrators or developers, Service Explorer allows you to publish services with Presto and manage security or other settings for services. To open Service Explorer, either: ▸ Enter http://*app-server*:*port*/serviceexplorer in a browser. ▸ Click **publish services** from the Mashup Server home page.
Mashlet Maker	For business users or developers, Mashlet Maker allows you to easily create mashlets for services and mashups that you can plug into web pages, portals, wikis or other widget environments such a NetVibes or iGoogle. Mashlets combine a view (the user inerface) with service or mashup data. To openMashlet Maker, ▸ Enter http://*app-server*:*port*/mashlets in a browser. ▸ Click **share mashlets** from the Mashup Server home page.
Admin Console	For administrators, Admin Console allows you to configure and manage the Mashup Server. To open the Admin Console, either: ▸ Enter http://*app-server*:*port*/adminconsole in a browser. ▸ Click **Admin > Launch Admin Console** from the Mashup Server home page. **Note:** if authorization is enabled in Presto, only users with Presto administration privileges can use the Admin Console.
Dapper Connector	For developers, the Dapper Connector allows you to create services by web clipping information from web sites. To open Dapper Connector: ▸ Click **Connectors** from the Mashup Server home page. ▸ Click **Dapper** from the Mashup Server Connectors menu.
Excel Connector	For business users or developers, the Excel Connector allows you to import data from Presto services into a worksheet or publish a workbook or range in a worksheet as a Presto service. Install the Excel Connector and begin using the Presto Toolbar in Excel. See online help that is installed in the Windows start-menu for more information.
HP SOA Systinet Connector	For developers, the HP SOA Systinet Connector allows you to easily publish services to Presto from the HP SOA registry. To open HP SOA Systinet Connector: ▸ Click **Connectors** from the Mashup Server home page. ▸ Click **HP SOA Systinet** from the Mashup Server Connectors menu.

Portal Connector	For developers, the Portal Connector is a portlet producer for Presto services that allows you to easily create portlets or mashlets forPresto services and add them to portal pages. Currently, this connector is available for the Oracle Application Server Portal, the WebLogic Portal Server or any portal that is compliant with the JSR-168 Portlet standard. Install the Presto Portal Connector in your portal server as a portlet producer. Then begin using this producer to add portlets for Presto to your portal application.

Accessing the Mashup Server Home Page

If the Mashup Server is running, open this URL in a browser and log in:

http:*app-server*:*port*/presto

The Mashup Server home page provides links to:

- Service Explorer
- Wires
- Mashlet Maker
- Presto Connectors
- Admin Console
- Presto demos, documentation and samples
- License status information, registration and upgrades
- Chained Services configuration (in the Enterprise Edition only)
- The Mashup Developer Community

Common Problems Opening Presto Applications or Logging In

Some common problems that may occur when you first install Presto and being opening Presto applications or logging in include:

- Login hangs indefinitely
- The home page for an application is blank
- You receive security errors from the browser

In many cases, these problems are caused by personal firewall or anti-virus software on your system.

In general, it is recommended that you turn off all non-critical security features. With some personal firewall software, you can turn off checking for the specific errors that are reported. In some cases, you may need to disable personal firewalls altogether.

For further suggestions, see the Jackbe Support Forums at http://forums.jackbe.com/ to participate in forums, find articles and tips or to report problems.

Where To Go Next

Your next steps working with Presto depend on the components you have installed and on your goals. Here are some suggestions on where to go next:

Other Configuration Steps

In addition to the very basic configuration discussed in this guide, there are other configuration changes that you may want to complete to integrate Presto with your environment and policies:

- **Integrating Presto With Your User Store**: if you are simply trying Presto out, this step is not required. Presto will use the Default User Store that is installed with Presto.

  Otherwise, you must first integrate your existing User Store with Presto for user authentication and authorization.
- **General Configuration**: such as logging or cache settings.
- **Presto Access and Authorization**: define the policies you need to control access to services, mashups and mashlets. You may also want to control what users can see and work with in Presto applications.
- **Other Security Settings**: such as using SSL or certificates and key stores.
- **Deployment Choices**: such as clustering, federated access to service information or hosting multiple instances of Presto in one server.
- **Event Connector**: configuration.

Information for these additional configuration tasks is available in the Administration section of the Presto Library.

Demonstrations, Tutorials and Samples

The Introduction and Getting Started sections of the Presto Library provide an overview of Presto and tutorials that you can follow to "get your feet wet" creating mashups in Wires or Mashup Studio.

You can also find information on publishing services from many different sources using Service Explorer and Presto Connectors, .integrating applications with Presto using Presto Connect or creating custom mashlets using the Mashlet API. Plus much more.

In addition, Presto installs samples that you can use. See the Mashup Samples project at http://*presto-server:port*/mashupsamples.

Finding Additional Information

Samples, Help and Other Documentation

You can find sample projects, help or other documentation for Presto in:

- *Installation Guide*: in the Presto installation ZIP file. This guide is also available in the *presto-install*/docs folder once you have installed Presto or online, in the Presto Library (see below).
- *Presto Library*: documentation for developers or administrators is available online from http://www.jackbe.com/prestodocs/. Or, you can download Presto documentation for offline access.
- *Presto Wires and Mashlet Maker Online Help*: is accessible from these applications. You can also access help from:

  http://*app-server:port*/wireshelp.
- *Presto Excel Connector*: help is installed with the Presto Excel Connector. This is available from the PC4Excel start menu in Windows.
- *Presto Mashup Samples*: samples of mashups scripts using the EMML language are available from the Samples menu in the Mashup Server home page at:

  http://*app-server:port*/presto
- *Presto Custom Mashlet Samples*: samples for custom mashlet types are installed in the Mashlet Framework at:

  web-apps-home/mashlets
- *Presto Mashboard Samples Projects*: samples of mashlets used in an application are available at:

  http://*app-server:port*/mashboard

Version and License Information

You can find version information for Presto on the Mashup Server home page at http://*app-server:port*/presto.

Registered licenses are perpetual. For evaluation licenses, you can find expiration information on the Presto License page at http://*app-server:port*/presto/license.jsp.

Plug-ins, Updates, Forums and Technical Support

- For the Mashup Studio Eclipse Plug-in, use this remote site URL when searching for updates in Eclipse:

  http://www.jackbe.com/downloads/presto/mashupstudio/
- For the Excel Connector, you can download the installation package from http://www.jackbe.com/ or run *presto-install*/connectors/excel/setup.exe.

- For the Portal Connector, you can download the appropriate installation package from http://www.jackbe.com or find the appropriate WAR file in the *presto-install*/connectors/portalserver folder.
- For Presto Connect API libraries, go to the folder in *presto-install*/connectors/api for the language of your choice.
- For all other updates to Presto, go to http://www.jackbe.com/.
- For updates to Presto documentation, go to http://www.jackbe.com/prestodocs/.
- For technical support, articles, samples, demos and discussion forums, go to the Mashup Developer Community forums at http://www.jackbe.com/enterprise-mashup/forum.

  You can also call 240-744-7626, Monday through Friday, 10AM - 6PM, Eastern Standard Time for technical support
- To comment or provide feedback on Presto or Presto documentation, email presto-feedback@jackbe.com.