Getting Started with Avaya Aura® Orchestration Designer

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Contents

Chapter 1: About Orchestration Designer

Overview

Orchestration Designer is a Java-based tool that you can use to create:

- Speech applications that comply with VoiceXML version 2.1.
- Call control applications that comply with CCXML version 1.0 January 19, 2007, specification.
- Message applications that comply with TextXML.

Designed as an Eclipse plug-in, Orchestration Designer provides an integrated GUI for the design and implementation of:

- Speech applications that can operate with Interactive Response, Voice Portal, Media Processing Server, and Avaya Aura® Experience Portal systems.
- Message applications that can operate with Avaya Aura® Experience Portal system.

Orchestration Designer is a suite for combination of self-service products and Avaya Contact Center products, namely, Avaya Aura® Experience Portal, Avaya Interactive Response (IR), Media Processing Server (MPS), and Avaya Aura® Contact Center. As a single tool, you can use Orchestration Designer to design, simulate, and maintain contact routing scripts along with inbound and outbound self-service support. Orchestration Designer accelerates the service design and deployment, reduces the cost, and enhances the customer experience.

Orchestration Designer is based on the widely accepted Eclipse.org development framework. It provides a drag-and-drop environment for development and maintenance of speech, touchtone, and message applications.

Features and benefits

Orchestration Designer:

- Simplifies development, integration, and reusability of speech and touchtone applications.
- Significantly reduces time and cost of application prototyping and design.

- Provides unprecedented coverage of customer self-service, employee-facing productivity, and advanced call control application areas.
- Ensures consistent and more reliable deployment of voice enabled services and applications.
- Maximizes the use of existing tooling investments for more rapid deployment of Web-based voice applications through the open Eclipse-based framework.

Audience

The intended audience of this documentation are users who need to:

- Install and configure Orchestration Designer.
- Upgrade Orchestration Designer.
- Install Orchestration Designer patch updates.
- Upgrade Avaya Aura® Contact Center plugin in Orchestration Designer.

Related topics:

Prerequisite knowledge on page 8

Prerequisite knowledge

The primary users of Orchestration Designer are likely to be highly knowledgeable and skilled in telecommunications and Internet technologies. Therefore, this documentation does not cover topics related to those areas. The users must be proficient and knowledgeable in the following areas:

- The operating systems on which the users develop and deploy Orchestration Designer applications.
- Computer networking concepts and technologies.
- Telecommunications concepts and technologies, including switches and gateways.
- Basic programming logic and practice.

Note:

Although not required to develop applications in Orchestration Designer, knowledge and experience of Java programming is helpful.

Orchestration Designer is built on several existing technologies and tools. Hence, Orchestration Designer users must become familiar with the following technologies:

- Eclipse open-source software
- Java servlet technology
- Servlet engine technologies
- Speech recognition and synthesis technologies
- Database administration
- Web service technologies

For more information about additional resources for these technologies, see Documentation for related products and technologies on page 12.

Document changes since last issue

The following changes have been made to this document since the last issue:

- Support for Tomcat 7, JBoss AS7, and Java 7.
- Support for Eclipse 3.6 and Eclipse 3.7 instead of Eclipse 3.3 and Eclipse 3.4.
- Install and configure Microsoft SAPI Speech.
- Orchestration Designer patch updates.
- Avaya Aura® Contact Center plugin upgrade in Orchestration Designer.

Related resources

Documentation

The following table lists the documents related to this product. Download the documents from the Avaya Support website at http://support.avaya.com

Title	Description	Audience
Getting Started with Avaya Aura® Orchestration Designer	This PDF document contains the information needed to install and configure Orchestration Designer for initial use, as well as to understand the basics of Orchestration Designer graphical user interface (GUI).	• Application Developers • Implementation Engineers

Title	Description	Audience
Avaya Aura® Orchestration Designer Developer's Guide	This PDF document contains the same information as available in the online Help, but in a format that can be printed or viewed using Adobe Acrobat Reader.	Application Developers
Avaya Aura® Orchestration Designer online Help	The online Help provides detailed information and procedures for using Orchestration Designer features and options to create speech, message, and call control applications. When installing Orchestration Designer, the online Help is installed as an additional Eclipse plug-in.	• Application Developers • Implementation Engineers
Programmer Reference Guide	This online documentation is designed for the programmers of Orchestration Designer. This documentation includes: • A Constants (Quick reference) guide. • A Class Hierarchy reference guide. • An API Reference guide.	Application Developers

For information about viewing the Orchestration Designer documentation, see Viewing the Orchestration Designer documentation on page 11.

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About this task

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- To find videos on the Avaya Support website, go to http://support.avaya.com, select the product name, and select the *videos* checkbox to see a list of available videos.
- To find the Avaya Mentor videos on YouTube, go to http://www.youtube.com/AvayaMentor and perform one of the following actions:
  - Enter a key word or key words in the Search Channel to search for a specific product or topic.

- Scroll down Playlists, and click the name of a topic to see the available list of videos posted on the site.

Note:

Videos are not available for all products.

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Visit the Avaya Support website at http://support.avaya.com for the most up-to-date documentation, product notices, and knowledge articles. You can also search for release notes, downloads, and resolutions to issues. Use the online service request system to create a service request. Chat with live agents to get answers to questions, or request an agent to connect you to a support team if an issue requires additional expertise.

Viewing the Eclipse documentation

About this task

The documentation for Eclipse and supporting Eclipse components (GEF and WTP) is available at http://www.eclipse.org/documentation/, and is also available in the form of an online Help.

- On the **Help** menu > click **Help Contents**.

Viewing the Orchestration Designer documentation

About this task

The *Getting Started with Avaya Aura® Orchestration Designer* guide is available on the Orchestration Designer installation DVD.

You can view the Orchestration Designer documentation on the Avaya support Web site:

http://support.avaya.com

The Orchestration Designer documentation is also available in the form of an online Help.

- On the **Help** menu, click **Help Contents** > **Avaya Aura® Orchestration Designer - Self Service**.

Documentation for related products and technologies

Orchestration Designer depends on the use of several closely related software products and technologies. When using Orchestration Designer, review the documentation of these related products and technologies.

Avaya does not reproduce or package the documentation for these related products and technologies. However, to help locate the appropriate documentation, review the following resources:

Note:

The following URLs were valid at the time of publication of this document. Avaya is not responsible if these URLs have changed. For more updated URLs, perform a search operation online.

- For Eclipse and supporting Eclipse components (GEF and WTP), go to:

  http://www.eclipse.org/documentation/

  For more information, see Viewing the Eclipse documentation on page 11.
- For the Java SDK (Software Developer's Kit), go to:

  http://docs.oracle.com/javase/1.5.0/docs/index.html

  http://docs.oracle.com/javase/6/docs/index.html

  http://docs.oracle.com/javase/7/docs/index.html
- For Tomcat 5.5, 6.0, or 7.0, go to:

  http://tomcat.apache.org/tomcat-5.5-doc/index.html

  http://tomcat.apache.org/tomcat-6.0-doc/index.html

  http://tomcat.apache.org/tomcat-7.0-doc/index.html
- For IBM WebSphere or WebSphere Express, go to:

  http://www.ibm.com/websphere
- For WebLogic, go to:

  http://www.oracle.com/appserver/weblogic/weblogic-suite.html
- For JBoss AS7, go to:

  https://docs.jboss.org/author/display/AS7/Documentation
- For Microsoft SAPI Speech, go to:

http://www.microsoft.com/speech/speech2007/downloads.mspx

- For databases and JDBC implementation, go to:

  http://www.sql.org/

  http://www.firstsql.com/tutor.htm

  http://java.sun.com/developer/onlineTraining/Database/JDBCShortCourse/jdbc/sql.html
- For Web services, go to:

  http://www.w3.org/TR/wsdl

  http://www.ws-i.org/Profiles/BasicProfile-1.1-2004-08-24.html
- For the W3C VoiceXML 2.0 Recommendation, go to:

  http://www.w3.org/TR/voicexml20/
- For the W3C VoiceXML 2.1 Recommendation, go to:

  http://www.w3.org/TR/voicexml21/
- For the W3C CCXML 1.0 Recommendation (January 19, 2007), go to:

  http://www.w3.org/TR/ccxml/
- For the Speech Recognition Grammar Specification version 1.0, go to:

  http://www.w3.org/TR/speech-grammar/#AppJ.5

Chapter 2: Installation and configuration

System requirements

License requirements

You need a valid license to run Orchestration Designer applications on Avaya Aura® Experience Portal, Avaya Voice Portal, Avaya Interactive Response (IR), Avaya Media Processing Server (MPS), and other supported VXML platforms. Orchestration Designer licenses are free. You can contact an Avaya sales representative or channel manager to get the license file. Avaya partners can log on to the Partner Portal to find information about ordering additional licenses.

If you run the Orchestration Designer applications on Voice Portal, Avaya Aura® Experience Portal, IR, or other Avaya products that use the WebLM license server, then Orchestration Designer does not require a separate WebLM license server. Avaya recommends that you install the Orchestration Designer license on the existing WebLM license server that is installed with Voice Portal, Avaya Aura® Experience Portal, IR, or other Avaya products that use the WebLM license server.

If you run the Orchestration Designer applications on MPS, then you must install the WebLM license server and configure the license information of Orchestration Designer. You must install a separate WebLM license server because the WebLM license server is not installed during the MPS installation.

Orchestration Designer license has a grace period of 30 days. If the WebLM license server is unavailable after Orchestration Designer obtains the license from the WebLM license server, Orchestration Designer is available for use for 30 days.

You do not require a license to install or run the Eclipse-based Orchestration Designer development and simulation environment.

Related topics:

About the WebLM license server installation and configuration on page 18

Hardware requirements

The system that hosts the Orchestration Designer development environment must meet or exceed the following hardware requirements:

Hardware	Minimum	Recommended
CPU speed	1 GHz	2 GHz
RAM	512 MB	1 GB
Hard disk drive	40 GB	—
Monitor resolution	1024 x 768 pixels	—

Software requirements

The system that hosts the Orchestration Designer development environment must have the following software packages installed. You must install these packages before installing and configuring Orchestration Designer. The software required to host the Orchestration Designer development environment is available on the Orchestration Designer 7.0 distribution DVD.

Important:

If you want to upgrade Orchestration Designer, see About Orchestration Designer 6.0 to Orchestration Designer 7.0 upgrade on page 34.

Software requirement	On DVD	Notes and links [1]
Any one of the following: • Microsoft Windows XP (Professional or Home editions, Service Pack 2 or later) • Microsoft Windows 7 (Professional and Enterprise versions) • Microsoft Windows Vista (Business or Ultimate editions)	No	You can install Orchestration Designer on any of these operating systems as long as you meet all the hardware requirements and install all the supporting software packages. **Note:** For the development environment, Orchestration Designer supports Windows 7, 32 bit and 64 bit. However, for 64 bit operating system, you must use 32 bit JRE and Eclipse version.

Software requirement	On DVD	Notes and links [1]
Any one of the following: • J2SE Development Kit 6.0 (JDK 6.0) • J2SE Development Kit 7.0 (JDK 7.0) Orchestration Designer 7.0 also supports existing JDK 1.5 and JDK 1.6.	Yes	The JDK includes the Java Run-Time Environment (JRE) and command-line tools, compilers, and debuggers used in developing applets and applications.
Any one of the following: • Eclipse-3.7.1-Prereq-AAOD.zip which includes: - Eclipse 3.7 SDK - GEF 3.7 SDK - WTP SDK 3.3 - emf-xsd 2.7 - DTP 1.9 • Eclipse-3.6-Prereq-AAOD.zip which includes: - Eclipse 3.6 SDK - GEF 3.6 SDK - WTP SDK 3.2 - emf-xsd 2.6 - DTP 1.8	Yes	Eclipse is a Java-based open-source integrated development environment (IDE) for software development. Orchestration Designer runs as an Eclipse plug-in. Orchestration Designer uses the Eclipse Graphical Editing Framework plug-ins for Eclipse (GEF) for advanced graphical functions. It also includes the support files for Call Control (CCXML) development.
Apache Tomcat 5.5, Tomcat 6.0, or Tomcat 7.0	Yes	Tomcat generates and serves VoiceXML pages to the Avaya Application Simulator. **Note:** • You must have administrative privileges when running Tomcat. • If you upgrade to Tomcat 7.0, you might need to make small adjustments the first time you run Tomcat. If your applications have manually configured build paths or have resources in common/lib or common/classes, then you must manually update the build path to point to <tomcat_installpath>/lib and also put any resources, such as libraries, in that folder.

Software requirement	On DVD	Notes and links [1]
Microsoft SAPI Speech 6.0	Yes	Orchestration Designer uses Microsoft SAPI Speech during application testing to perform automated speech recognition (ASR) and text-to-speech (TTS) functions. **Note:** Microsoft Windows 7 and Windows Vista already have Microsoft Speech components installed. If Microsoft SAPI Speech is already installed on Windows XP, verify if the **Speech Recognition** and **Text-to-Speech** tabs are available in **Control Panel** > **Speech**. If Microsoft SAPI Speech is already installed on Windows 7, verify if the **Speech Recognition** and **Text-to-Speech** tabs are available in **Control Panel** > **Speech Recognition** > **Text-to-Speech**.
Storm Codec 7.01.19		You need to install Storm Codec 7.01.19 only if you intend to use 3GP video files for media. To launch the Storm Codec installer, see the installation notes available on the DVD.
Ambulant player 2.1	No	Orchestration Designer uses Ambulant player 2.1 for playing and previewing media files. Though Ambulant player 2.1 consists of all the menu and toolbar options and controls, do not use the options in the player.
1. Though specific locations on the DVD are described here, it is intended that users simply launch the DVD, and use the displayed HTML index page to navigate to the required resources. By following these instructions, installation will be smoother because the online navigation documentation leads you along the correct installation path. This is the preferred methodology for using the DVD and installing efficiently.		

About the WebLM license server installation and configuration

If you run the Orchestration Designer applications on MPS, then you must install the WebLM license server and configure the license information of Orchestration Designer. You must install a separate WebLM license server because the WebLM license server is not installed during the MPS installation.

Use the `WebLM.war` file that is available on the Orchestration Designer 7.0 installation DVD to install the WebLM license server software.

For information about installing and configuring the WebLM license server software, see the *Licensing Installation Instructions for WebLM 6.2 SP2* guide and *Licensing Release Notes for WebLM 6.2 SP2*.

The `WebLM.war` file, *Licensing Installation Instructions for WebLM 6.2 SP2* guide, and *Licensing Release Notes for WebLM 6.2 SP2* are available on the Orchestration Designer 7.0 installation DVD at:

`<DVD_drive>:\Software\WebLM\`

Related topics:

License requirements on page 15

Installing Orchestration Designer manually

About this task

The Orchestration Designer installation DVD contains the Orchestration Designer distribution executable. Before running the executable, ensure that all system requirements are met as mentioned in System requirements on page 15.

Note:

Before installing the Orchestration Designer software, temporarily disable the antivirus software and close any open or running applications. Orchestration Designer installation involves extracting Java-related files from a compressed archive and the antivirus software can slow down the installation process significantly.

Important:

The procedure described in this section is for new installations of the Orchestration Designer software. To upgrade Orchestration Designer, see About Orchestration Designer 6.0 to Orchestration Designer 7.0 upgrade on page 34.

Procedure

1. Insert the Orchestration Designer installation DVD into the DVD drive.
2. Install JDK 6.0 or JDK 7.0:
   a. Locate the JDK installer on the Orchestration Designer 7.0 DVD.
      The JDK installer is located in the following directory: `<DVD_drive>:\Software\Java\`
   b. Double-click the downloaded executable file to install the JDK.
3. Install Eclipse and all other Eclipse prerequisite features:

a. Locate the package file on the Orchestration Designer 7.0 DVD. This file is located in the following directory: `<DVD_drive>:\Software\Eclipse\`
b. Extract the `.zip` file into an installation folder.
c. **(Optional)** If you want, create a shortcut for the Eclipse executable. Orchestration Designer is launched through Eclipse.

Note:

For Windows Vista Business, download the prerequisite `.zip` file before extracting the prerequisite `.zip` file because the native extract from the Web site does not work properly on Windows Vista Business.

4. Install Orchestration Designer software:
   a. Locate the `AAOD_7.0.0.XXX.jar` installation archive on the Orchestration Designer 7.0 DVD and copy it to a temporary location.

      The installation archive is located in the `<DVD_drive>:\UpdateSites\` directory.
   b. On the eclipse interface, click **Help** > **Install New Software**.
   c. On the Available software page, click **Add**.
   d. On the Add Repository page, enter a name and click **Archive** to specify the location of the `AAOD_7.0.0.XXX.jar` file.
   e. Click **OK**.
   f. Click **Select All**.
   g. On the Available software page, clear the **Contact all update site sites during install to find the required software** check box and click **Next**.
   h. On the Install Details page, click **Next**.

      The Avaya Software License Agreement is displayed.
   i. Review the license agreement and click **I accept the term of the license agreement**.
   j. Click **Finish**.
   k. When prompted to trust the certificates, click **Select All**, and click **OK**.
   l. Click **Restart Now** to restart eclipse.
5. Install Tomcat:
   a. Locate the Tomcat distribution package on the Orchestration Designer 7.0 DVD.

      The Tomcat distribution package is located in the `<DVD_drive>:\Software\Tomcat\` directory.
   b. Extract the `.zip` file in a temporary folder.
   c. Review the `RUNNING.txt` file for additional installation instructions.

Important:

Do not install Tomcat as an NT service. Orchestration Designer does not support this configuration because Tomcat does not start and stop appropriately when developing applications.

Note:

If more than one Java SDK is installed, then you must set the Tomcat **JVM Settings** preferences option to **JRE1.5.x**. JRE1.5.x must be available in Java before you select it in the Tomcat **JVM Settings**.

6. **(Optional)** Install Microsoft Speech API 6.0:
   a. Insert the Orchestration Designer 7.0 installation DVD into the DVD drive.
   b. Go to **<*DVD_drive*>** > **Software** > **MSSpeech**
   c. Double-click the `Setup.exe` file.
      The system displays the Microsoft SAPI Speech wizard.
   d. In the Welcome dialog box, click **Next**.
   e. Accept the license terms and click **Next**.
   f. Enter a user name and organization in the Customer Information dialog box, then click **Next**.
   g. Accept the default installation folder, when prompted, or navigate to another, if applicable. Then, click **Next**.
   h. Click **Install** to begin the Microsoft SAPI Speech installation.
   i. Click **Finish** when the installation is complete.
7. **(Optional)** Optionally, install the Storm Codec 7.01.19. To launch the Storm Codec 7.01.19, refer the *Installation Notes* on the DVD.

Note:

- After you complete the installation procedure, read the Eclipse “readme” file located in the /readme subdirectory where Eclipse is installed. The Eclipse readme file includes valuable information and tips for configuring Eclipse.
- Before you use Orchestration Designer, you must configure the basic settings. For information about configuring your development environment settings, see Basic configuration on page 23.

Installing Orchestration Designer using pre-packaged installation

About this task

The Orchestration Designer DVD-ROM contains a pre-packaged Orchestration Designer installation that contains both the Self Service and Contact Center features as well as a Tomcat installation.

Note:

Before you use the pre-packaged Orchestration Designer installation, you must have Java Development Kit installed. If you do not have a Java Development Kit, use the installer available on the DVD to install Java before continuing with the pre-packaged installation.

Procedure

1. Insert the Orchestration Designer installation DVD into the DVD drive and navigate to the root folder of the DVD-ROM or ISO image.
2. Copy the `AAOD7.0` folder to `C:\` directory on your computer.
3. Double click `eclipse.exe` file in the `AAOD7.0\eclipse` folder to install and open Orchestration Designer.

   Tip:

   For easy access to Orchestration Designer, you can create a shortcut to `eclipse.exe` and place the shortcut in a convenient location.
4. Open Orchestration Designer and perform the following step to configure the preferences for the location of the Tomcat installation:

   Click **Window** > **Preferences** > **Tomcat** and set the **Tomcat home** value.

   For example, if you copied the `AAOD7.0` folder to your `C:\` drive, then the **Tomcat home** value would be `C:\AAOD7.0\apache-tomcat-7.0.26`.

Viewing the version number of an installed Orchestration Designer software

Procedure

1. On the **Help** menu, click **About Eclipse SDK**.
2. In the About Eclipse SDK dialog box, click **Installation Details**.
   The system displays the Eclipse SDK Installation Details dialog box, which contains the installation and configuration details.

Basic configuration

After you install all the required software for Orchestration Designer and before you start creating Orchestration Designer projects, you must perform some basic configurations to ensure that the environment is properly configured and ready to use.

Creating an Eclipse shortcut

About this task

After you complete installing all the installation components, you can launch Eclipse to gain access to Orchestration Designer. For easy access to Eclipse, you can create a Windows desktop shortcut icon to the **eclipse.exe** Eclipse executable file, which is located where Eclipse is installed.

Procedure

1. To create an Eclipse shortcut, right-click the **eclipse.exe** Eclipse executable file which is located where Eclipse is installed, and then click **Send To** > **Desktop (create shortcut)**.
2. Double-click the shortcut file to launch Orchestration Designer.
   The system displays the Workspace Launcher dialog box.

Setting up the workspace

About this task

After you launch Orchestration Designer, through Eclipse, for the first time, the Eclipse **Workspace Launcher** dialog box prompts you to specify a workspace location. Specify a directory where you want to save all Orchestration Designer project files.

Important:

If you are configuring a new version of Orchestration Designer, back up all files in the original installation directory before configuring a new directory.

Procedure

1. Double-click **eclipse.exe**.

   For more information, see Creating an Eclipse shortcut on page 23.
2. In the Workspace Launcher dialog box, click **Browse** to navigate to the location that you want to set as the workspace location.

   The default directory is relative to the installation path of Eclipse. For example, `C:\Eclipse\workspace`.
3. Click **OK**.

Note:

To stop the Workspace Launcher dialog box from prompting for this directory with every launch of Eclipse, select the **Use this as the default and do not ask again** check box, and then click **OK**.

Preference settings configuration

You must configure the preferences the first time you use Orchestration Designer. Orchestration Designer uses these configured preferences on subsequent launches.

Configuring the default perspective

Procedure

1. On the **Window** menu, click **Preferences**.
2. In the Preferences dialog box, in the left navigation pane, double-click **General**.
3. Click **Perspectives**.

4. In the **Open a new perspective** area, click **In the same window**.
5. In the **Fast Views** area, click **Within the perspective**.
6. In the **Open the associated perspective when creating a new project** area, click **Prompt**.
7. In the **Available perspectives** pane, perform one of the following actions:
   - Click **Speech** to set the Speech perspective as the default perspective.
   - Click **Call Control** to set the Call Control perspective as the default perspective.
8. Click **Make default**.
9. Click **Apply**, and then click **OK**.

Configuring Tomcat preferences

About this task

Tomcat preferences provides settings that determine how Orchestration Designer works with the Apache Tomcat servlet engine during simulations.

If Tomcat is installed with the default settings, Tomcat preferences are already configured. If you have installed Tomcat with default settings, you need not configure Tomcat preferences again.

Verify that the appropriate Tomcat version, home directory, and Contexts directory are populated.

Note:

If you are running only Orchestration Designer in your development environment, that is, if you are not running deployed applications, you need not install the runtimeconfig to your local Tomcat. This file is installed automatically. You only need to set up your production system when you are deploying and running live applications.

Important:

Do not run the runtimeconfig on your ADE. If you do, connection timeout exceptions will occur. To recover, stop Tomcat, stop Orchestration Designer, restart Orchestration Designer, and change your configuration in preferences.

Note:

If more than one Java SDK is installed, then the Tomcat JVM settings preferences option must be set to JRE1.5.x. JRE1.5.x needs to be available in Java before it can be selected in the Tomcat JVM Settings.

Procedure

1. On the **Window** menu, click **Preferences**.
   The system displays the Preferences dialog box.
2. In the left navigation pane, click **Tomcat**.
3. In the Tomcat version area, click the Tomcat version that is installed on your computer.
4. In the **Tomcat home** field, click **Browse** to navigate to and select the directory where Tomcat is installed.
5. In the Context declaration mode area, click **Context files**.
6. In the **Context directory** field, click **Browse** to navigate to and select the context directory.
7. Click **Apply**, and then click **OK**.

Orchestration Designer preferences management

Considerations for enabling an HTTP or HTTPS proxy connection

The Orchestration Designer Preferences panel includes a setting to enable an HTTP or HTTPS proxy connection.

Proxy settings are required when all of the following conditions are true:

- The system where Orchestration Designer is installed is behind a firewall.
- Access is required to resources that reside outside the firewall for your Orchestration Designer speech projects. These resources can include Web services, databases, or other outside resources.
- Access to these resources requires the use of either an HTTP or HTTPS proxy server.

When these conditions are true, proxy settings for Orchestration Designer must be configured, even if proxy settings are already configured for your Internet browser or e-mail client. If you have a proxy server configured for your Internet browser, use the same proxy settings for Orchestration Designer. .For more information, see “Admin (ddadmin) Web application configuration” in the *Avaya Aura® Orchestration Designer Developer’s Guide*

Related topics:

Enabling an HTTP or HTTPS proxy connection on page 26

Enabling an HTTP or HTTPS proxy connection

Procedure

1. On the **Window** menu, click **Preferences**.

2. In the Preferences dialog box, in the left navigation pane, double-click **Avaya Aura**.
3. Click **Orchestration Designer**.
4. In the Orchestration Designer pane, perform one of the following actions:
   - In the **Proxy Settings** area, configure the HTTP proxy settings.
   - In the **HTTPS Proxy Settings** area, configure the HTTPS proxy settings.
5. Click **Apply**, and then click **OK**.

Related topics:

Considerations for enabling an HTTP or HTTPS proxy connection on page 26
Orchestration Designer preferences field descriptions on page 29

Configuring the run-time license server

About this task

Note:

You need to specify a run-time license server only if you have Avaya Aura® Experience Portal, IR, or MPS accessing your application from the development environment.

You do not need a run-time license to run applications using the Application Simulator.

Procedure

1. On the **Window** menu, click **Preferences**.
2. In the Preferences dialog box, in the left navigation pane, double-click **Avaya Aura**.
3. Click **Orchestration Designer**.
4. In the Orchestration Designer pane, in the **Runtime License Server** area, in the **Server URI** field, type the URI of the run-time license server if you have Avaya Aura® Experience Portal, IR, or MPS accessing your application from the development environment.

   The format for this URI is http://webServerName:port where:

   - webServerName is the fully qualified host name or IP address of your WebLM license server.
   - port is the number of the HTTP/HTTPS port the system uses to access the license server.

   For example, http://licenseServer.myCompany.com:8080
5. In the **License Check Timeout** field, type the time in seconds that the system must wait for a response from the WebLM license server while attempting to connect to the WebLM license server.

The default value is zero seconds. Zero indicates that there is no timeout.

6. Click **Apply**, and then click **OK**.

Related topics:

Orchestration Designer preferences field descriptions on page 29

Removing the context files on closing a project

About this task

Tomcat opens the context files of all the projects each time you simulate a project. Therefore, Orchestration Designer performance can degrade if you have several workspaces with a huge number of projects.

If you select the **Remove context files on project close** check box, Orchestration Designer automatically deletes the corresponding context files when you close the Orchestration Designer projects.

Orchestration Designer recreates the context file when a project is reopened. This improves the performance by controlling the size of the workspaces.

Note:

This option does not affect the projects which are not opened in the current session. This applies only to Orchestration Designer projects which you open and close subsequently.

Procedure

1. On the **Window** menu, click **Preferences**.
2. In the Preferences dialog box, in the left navigation pane, double-click **Avaya Aura**.
3. Click **Orchestration Designer**.
4. In the Orchestration Designer pane, in the **Context Files** area, select the **Remove context files on project close** check box.
5. Click **Apply**, and then click **OK**.

Related topics:

Orchestration Designer preferences field descriptions on page 29

Configuring the fetch secure port

About this task

If you want to use HTTPS to get and post data from form nodes, such as prompt and collect, announce, menu, record, and transfer, you can specify the port number used by the application server. If you are using Tomcat, the default port is 8443.

Procedure

1. On the **Window** menu, click **Preferences**.
2. In the Preferences dialog box, in the left navigation pane, double-click **Avaya Aura**.
3. Click **Orchestration Designer**.
4. In the Orchestration Designer pane, in the **Secure Fetch** area, in the **Secure Fetch Port** field, specify the port number used by the application server.
5. Click **Apply**, and then click **OK**.

Related topics:

Orchestration Designer preferences field descriptions on page 29

Orchestration Designer preferences field descriptions

Name	Description
Proxy Settings	
Enable HTTP proxy connection	Check box to enable HTTP proxy connection if you need a proxy server for Internet access.
Ignore hosts with addresses	The IP addresses. Orchestration Designer ignores HTTP hosts with these addresses. For multiple addresses, use either a comma or semicolon as a separator character.
HTTP proxy host address	The full HTTP path or the URL of the proxy server.
HTTP proxy host port	The port that Orchestration Designer can use to access the proxy server.
Copy HTTP settings to HTTPS	To copy the configured HTTP settings to HTTPS settings automatically.
HTTPS Proxy Settings	
Enable HTTPS proxy connection	Check box to enable HTTPS proxy connection if you need a proxy server for Internet access. If you do not need a proxy server for Internet access, clear this check box. If cleared, Orchestration Designer disables the other options in this area.
Ignore HTTPS hosts with addresses	The IP addresses. Orchestration Designer ignores HTTPS hosts with these addresses.

Name	Description
	For multiple addresses, use either a comma or a semicolon as a separator character.
HTTPS proxy host address	The full HTTPS path or the URL of the proxy server. If you do not know this address, look at the proxy server settings for your Internet browser software.
HTTPS proxy host port	The port that Orchestration Designer can use to access the HTTPS proxy server If you do not know the URI, contact the Avaya technical service representative. **Note:** These settings are required even if proxy options are also set in Microsoft Internet Explorer or any other Web browser.
Runtime License Server	
Server URI	The URI of the run-time license server if you have Avaya Aura® Experience Portal, IR, or MPS accessing your application from the development environment. **Note:** You need to specify a run-time license server only if you have Avaya Aura® Experience Portal, IR, or MPS accessing your application from the development environment. You do not need a run-time license to run applications using the Application Simulator. The format for this URI is *http://webServerName:port* where: • *webServerName* is the fully qualified host name or IP address of your WebLM license server. • *port* is the number of the HTTP/HTTPS port the system uses to access the license server. For example, http://licenseServer.myCompany.com:8080
License Check Timeout	The time in seconds that the system must wait for a response from the WebLM license

Name	Description
	server while attempting to connect to the WebLM license server. The default value is zero seconds. Zero indicates that there is no timeout.
Context Files	
Remove context files on project close	Check box to automatically delete corresponding context files when you close Orchestration Designer projects. Orchestration Designer recreates the context file when a project is reopened. This improves the performance by controlling the size of the workspaces. If you clear the **Remove context files on project close** check box, Tomcat opens the context files of all the projects each time you simulate a project. Therefore, Orchestration Designer performance can degrade if you have several workspaces with a huge number of projects. **Note:** This option does not affect the projects which are not opened in the current session. This applies only to Orchestration Designer projects which you open and close subsequently.
Secure Fetch	
Secure Fetch Port	The port number used by the application server if you want to use HTTPS to get and post data from form nodes, such as prompt and collect, announce, menu, record, and transfer. If you are using Tomcat, the default port is 8443.

Related topics:

Enabling an HTTP or HTTPS proxy connection on page 26
Configuring the run-time license server on page 27
Removing the context files on closing a project on page 28
Configuring the fetch secure port on page 28

Verifying the Java JRE

Procedure

1. On the **Window** menu, click **Preferences**.
2. In the Preferences dialog box, in the left navigation pane, double-click **Java**.
3. Click **Installed JREs**.
4. Verify that **jre1.5.x**, **jre1.6.x**, or **jre7** is selected. If **jre1.5.x**, **jre1.6.x**, and **jre7** do not appear in the list, perform the following action:
   - Click **Add** to add the JRE. For more information, see the *Java Development User Guide*.
5. Click **OK**.

Setting the Java JDK compiler compliance level

Procedure

1. On the **Window** menu, click **Preferences**.
2. In the Preferences dialog box, in the left navigation pane, double-click **Java**.
3. Click **Compiler**.
4. In the **JDK Compliance** area, in the **Compiler compliance level** field, perform one of the following actions:
   - Click **1.5** if you are using Eclipse 3.6.
   - Click **1.5** if you are using Eclipse 3.7.
5. Click **Apply**, and then click **OK**.

Configuring Microsoft SAPI Speech for microphone input

About this task

Orchestration Designer uses the Microsoft Speech API 6.0 to handle ASR input from a microphone during application simulation. To use the Microsoft SAPI Speech for ASR input, you must configure the Microsoft SAPI Speech to use a microphone.

Procedure

1. On the system where Orchestration Designer is installed, open Control Panel.
2. Perform one of the following actions:
   - If you have Microsoft Windows XP installed on your computer, double-click **Speech**.
   - If you have Microsoft Windows 7 installed on your computer, double-click **Speech Recognition** > **Text-to-Speech**.
3. In the Speech Properties dialog box, click the **Speech Recognition** tab.
4. With a microphone plugged in and turned on, speak into the microphone. The **Level** indicator in the Microphone area should show that the system is receiving microphone input. If it does not, click **Audio Input** and rectify the audio input source settings.
5. Click **Configure Microphone** to further tune the microphone settings.
6. Click **OK**.

Installing sample applications

About this task

Orchestration Designer includes numerous sample applications. You can use these sample application to understand how finished applications work and operate, and how the features of Orchestration Designer work.

Procedure

1. Navigate to the `/Sample Applications/files` directory on the Orchestration Designer installation DVD.
2. Locate and double-click the **Avaya Aura® Orchestration Designer [*version*] Sample Applications.doc** file.
3. Follow the instructions in this file to install and configure Orchestration Designer sample applications.

   This file also contains detailed information about each sample application.

   Important:

   Included sample applications are intended to be used as technical samples for reference only, and not production-ready applications.

About Orchestration Designer 6.0 to Orchestration Designer 7.0 upgrade

The procedure to upgrade Orchestration Designer 6.0 to Orchestration Designer 7.0 is slightly different depending on whether the earlier version (6.0) is available while installing a concurrent new version (7.0).

See the following sections:

- Maintaining the 6.0 environment while installing 7.0 on page 34
- Installing 7.0 without retaining the 6.0 environment on page 36

See the following sections for additional information:

- System requirements on page 15
- Installing Orchestration Designer manually on page 19

Note:

Upgrades to Orchestration Designer might require updates to connectors or other dependant libraries on the application server. Avaya recommends that you update the connector applications (**icconnector.war** and **aesconnector.war**) and run-time support files (runtimeSupport <*platform*>.zip) after upgrading Orchestration Designer.

For more information about installing the run-time support files and connectors, see *Prerequisite files on the application server* in *Avaya Aura® Orchestration Designer Developer's Guide*.

Maintaining the 6.0 environment while installing 7.0

About this task

To retain the Orchestration Designer 6.0 environment, you can install Orchestration Designer 7.0 into a separate directory. You can retain the Orchestration Designer 6.0 environment for reasons such as maintenance of 6.0-based applications.

For information about the recommended installation paths, see Recommended installation paths for multiple Orchestration Designer and Eclipse versions on page 35.

Procedure

1. Preserve the Orchestration Designer 6.0 and Eclipse 3.6 installation and workspace. Orchestration Designer 6.0 continues to use the previous Tomcat installation.

2. Install Orchestration Designer 7.0, and Tomcat 5.5, 6.0, or 7.0. (Tomcat upgrade is optional) to a separate location. For example, `C:\OD7.0\`.

   Note:

   You must install Tomcat under the Orchestration Designer 7.0 installation location to keep it separate.

3. Upgrade Orchestration Designer 6.0 projects to Orchestration Designer 7.0 projects. Perform the following actions:

   a. Copy the projects from the Orchestration Designer 6.0 workspace to the Orchestration Designer 7.0 workspace. Keep a copy of the projects in the 6.0 workspace to ensure that you have a backup in case of upgrade problems.
   b. Import the copied projects into Orchestration Designer 7.0.
   The system converts the projects for Orchestration Designer 7.0. You cannot open these projects in Orchestration Designer 6.0.

4. If you use a source control system, store the 7.0 application in a different location or a different branch, so that the old 6.0 application can be maintained in the future.

   Note:

   After creating a new workspace during an upgrade, click **Window** > **Preferences** to configure your preferences before importing old projects. For more information, Preference settings configuration on page 24.

Recommended installation paths for multiple Orchestration Designer and Eclipse versions

The following example installation paths are recommended for multiple Orchestration Designer and Eclipse versions. In these paths, (base) means any parent directory.

c:\(base)\OD6.0

eclipse (Eclipse 3.6 install, with GEF 3.6, WTP SDK 3.2, EMF-SDO-XSD 2.6, with Orchestration Designer 6.0 features, Eclipse 3.4 or 3.5 install, with GEF 3.4 or 3.5 respectively, and Dialog Designer 5.1 features)

tomcat (Tomcat 5.5 or 6.0 for running Orchestration Designer 6.0 applications)

workspace (Orchestration Designer 6.0 projects)

c:\(base)\OD7.0

eclipse (Eclipse 3.7 install, with GEF 3.7, WTP SDK 3.3, EMF-SDO-XSD 2.7, with Orchestration Designer 7.0 features, Eclipse 3.4 or 3.5 install, with GEF 3.4 or 3.5 respectively, and Orchestration Designer 6.0 features)

tomcat (Tomcat 5.5, 6.0, or 7.0 for running Orchestration Designer 7.0 applications)

workspace (Orchestration Designer 7.0 projects)

This is a convenient installation structure that retains the Orchestration Designer 6.0 and Orchestration Designer 7.0 environments and prerequisite software separate.

Installing 7.0 without retaining the 6.0 environment

Procedure

1. Before uninstalling Orchestration Designer 6.0, create a backup copy of the projects in your workspace.
2. Uninstall Orchestration Designer 6.0 by using **Control Panel** > **Add or Remove Programs**.

   Depending on the location of your workspace, your projects can be removed by the uninstall process.
3. Install Orchestration Designer 7.0 and the supporting software.

   For more information, see Software requirements on page 16 and Installing Orchestration Designer manually on page 19.
4. Copy the Orchestration Designer 6.0 projects from the backup into the Orchestration Designer 7.0 workspace.

   It is a good idea to keep copies of your old backups in the event that there are errors while upgrading.
5. Import each project into Orchestration Designer 7.0.

   The system converts the projects for Orchestration Designer 7.0.
6. If you use a source control system, create a branch or store the 7.0 application in a different location so that the old 6.0 application can be maintained in the future.

Note:

After creating a new workspace during an upgrade, click **Window** > **Preferences** to configure your preferences before importing the old projects. For more information, see Preference settings configuration on page 24.

About Orchestration Designer patch updates

At this time, Avaya does not automatically alert you about the availability of new patches for Orchestration Designer. Therefore, periodically check the Avaya support Web site for the availability of patches. Or, as an alternative, use the Eclipse update mechanism to check for available updates.

The following sections describe the steps for installing Orchestration Designer patches:

- Before installing an Orchestration Designer patch update on page 37
- Installing an Orchestration Designer patch update on page 37

Note:

The procedure described in the Installing an Orchestration Designer patch update on page 37 section is for installing patches or updates to a released software, and not for upgrading software versions completely. For upgrading the software, see About Orchestration Designer 6.0 to Orchestration Designer 7.0 upgrade on page 34.

Before installing an Orchestration Designer patch update

Before installing a patch update, back up all files in the default **/eclipse** installation directory, as well as all files in the designated **/workspace** directory (if not a subdirectory of **/eclipse**). Backing up your files helps you to revert an update.

To continue using the older version for existing applications, perform a “clean installation” of the new version in a new directory.

Caution:

When opening an application created with a prior release of Orchestration Designer, Orchestration Designer prompts you to update the project to the new version. For project conversion considerations, refer to the Release Notes.

Installing an Orchestration Designer patch update

About this task

Orchestration Designer patch updates are released through the Avaya Support Web site. You can gain access to these updates from within the Eclipse user interface (UI).

Note:

The procedure described in this section is for installing patches or updates to a released software, and not for upgrading software versions completely. For upgrading the software, see About Orchestration Designer 6.0 to Orchestration Designer 7.0 upgrade on page 34.

Procedure

1. On the **Help** menu, click **Install New Software**.
2. In the **Install** dialog box, clear the **Contact all update sites during install to find required software** check box.

3. In the **Work with** field, click the Orchestration Designer patch update Web site name that you specified.

   Note:

   Be sure that the Orchestration Designer patch update Web site is added to Eclipse. For more information, see Adding the Web site for Orchestration Designer patch updates on page 38.

   Note:

   If you are unable to connect to the update Web site, ensure that you have correctly configured the proxy settings. The system automatically checks for the Orchestration Designer patch updates. If patches or updates are found, the search mechanism returns the results.

4. In the middle pane, select the Orchestration Designer patch updates that you want to install, click **Next**, and then follow the prompts.

   Caution:

   You can use the Eclipse Install New Software mechanism for features besides Orchestration Designer. To ensure that you install compatible features, Avaya recommends that you update only the Orchestration Designer features.

   If you are not sure which updates to install or if you have questions about the installation procedure, contact Avaya Support at http://support.avaya.com.

Adding the Web site for Orchestration Designer patch updates

About this task

To get Orchestration Designer patch updates, you must add the Orchestration Designer patch update Web site to Eclipse.

Procedure

1. Perform one of the following actions:
   - On the **Help** menu, click **Install New Software**, and then click the **Available Software Sites** link.
   - On the **Window** menu, click **Preferences**.
2. In the Preferences dialog box, double-click **Install/Update**.
3. Click **Available Software Sites**.
4. In the Available Software Sites pane, click **Add**.

5. In the Add Site dialog box, in the **Name** field, type a name for the Orchestration Designer patch update Web site. For example, `AAOD`.
6. In the **Location** field, type `http://support.avaya.com/OrchestrationDesigner/SS/Updates/`.
7. Click **OK**.

Installing the AACC OD plug-in in Orchestration Designer Application Development Environment

About this task

You must install the AACC-OD plug-in on the Contact Center Manager Administration (CCMA) Server to match with the version of the Avaya Aura® Contact Center Server.

Note:

Be sure that you can access the CCMA server from the computer where Orchestration Designer is installed.

If you are unable to connect to the CCMA server from Orchestration Designer, add the host address of the CCMA server to the list of host addresses that Orchestration Designer must ignore in the Orchestration Designer proxy settings. For more information, see Enabling an HTTP or HTTPS proxy connection on page 26.

Perform the following steps to ensure that the AACC plug-in works with Orchestration Designer 7.0:

Procedure

1. Install Orchestration Designer.
2. **(Optional)** Perform the following steps if JRE 7.0 is not already installed:
   a. Install JRE 7.0.
   b. Copy the `geronimo-jaxws_2.2_spec-1.0.jar` and `jaxb-api-2.2.1.jar` files to the `JRE\lib\endorsed` directory to configure Eclipse to use JRE 7.0.
3. On the CCMA server, share the following folder `D:\Avaya\Contact Center\SCE_Server\update`.
4. On the Orchestration Designer system, open a network drive and point it to the shared drive on the CCMA server.
5. Open the Eclipse interface and click **Help** > **Install new software** .
6. In the Install wizard, click **Add**.

7. On the Add Repository dialog box, click **Local**, select the network drive created in step 4, and click **OK**.
   The Install wizard shows the new version of AACC OD that is available for download.
8. Click **Select All** and click **Next** twice.
   The Avaya Software License Agreement is displayed.
9. Click **I accept the terms of the license agreement** and click **Finish**.
10. When the installation is complete, click **OK** to restart Eclipse.

Upgrading the Avaya Aura® Contact Center plugin in Orchestration Designer

About this task

Note:

Be sure that you can access the Contact Center Manager Administration (CCMA) server from the computer where Orchestration Designer is installed.

If you are unable to connect to the CCMA server from Orchestration Designer, add the host address of the CCMA server to the list of host addresses that Orchestration Designer must ignore in the Orchestration Designer proxy settings. For more information, see Enabling an HTTP or HTTPS proxy connection on page 26.

Procedure

1. On the CCMA server, share the `\\Avaya\Contact Center\SCE_Server \update` folder.
2. On the computer where Orchestration Designer is installed, map a network drive to the folder that you shared on the CCMA server. See Step 1.
3. Launch Orchestration Designer.
4. On the **Help** menu, click **Install New Software**.
5. In the Install wizard, click **Add**.
6. In the Add Repository dialog box, click **Local**.
7. In the Browse For Folder dialog box, browse to the folder that you mapped, and then click **OK**. See Step 2.
8. In the Add Repository dialog box, click **OK**.
   The system shows the latest version of Avaya Aura Orchestration Designer Contact Center in the middle pane of the Install wizard.

9. Select the check box that corresponds to the **Avaya Aura Orchestration Designer Contact Center** version that you want to update, and then click **Next**.
10. On the Install Details page, verify the features that you want to update, and then click **Next**.
11. On the Review Licenses page, click **I accept the terms of the license agreement**, and then click **Finish**.
12. On the Selection Needed page, select the certificates, and then click **OK**.
13. In the Software Updates dialog box, click **Restart Now** to restart Eclipse.

Glossary

AACC	Avaya Aura® Contact Center.
AAEP	Avaya Aura® Experience Portal
AAS	Avaya Application Simulator.
ADR	See application detail record (ADR) on page 43.
AMS	Avaya Media Server.
ANI	See automatic number identification (ANI) on page 43.
API	See application program interface (API) on page 43.
application detail record (ADR)	Data records which contain historical information about an application used as part of a session. These records include information such as the session ID number, a timestamp, and a “friendly name” string determined by the developer who created the application.
application program interface (API)	A set of routines, protocols, and tools for building software applications. A good API makes it easier to develop a program by providing all the building blocks.
application server	A computer on which the Orchestration Designer speech application resides and runs. This computer is also where the Orchestration Designer run-time libraries are installed, thus making it possible to run Orchestration Designer applications on that server. The IVR system must be configured to start the speech application from this location.
ASR	See automated speech recognition (ASR) on page 43.
automatic number identification (ANI)	A service that provides the originating telephone number of a call coming in to the system.
automated speech recognition (ASR)	Technology that employs a computer to recognize spoken words and respond appropriately.
call flow	As implemented in speech applications, the call flow determines how a call is handled when it enters an interactive voice response system, based on options offered to callers and their responses to those options.
CCXML	Call Control eXtensible Markup Language.

	An emerging XML specification, being developed to work in conjunction with VoiceXML and which addresses some of the technical limitations of VoiceXML. It enables the processing of asynchronous events, filtering and routing of incoming calls, and placement of outbound calls. Note that it is not intended to replace VoiceXML but rather to supplement it. See Ian Moraes's excellent article, "VoiceXML, CCXML, SALT: Architectural Tools for Enabling Speech Applications," on the Internet.
Computer Telephony Integration (CTI)	Software technology that integrates the use of telephones and computers without the need for special telephones, connectors, computer circuit packs, or other specialized hardware.
CTI	See Computer Telephony Integration (CTI) on page 44.
dialed number identification service (DNIS)	A service that identifies for the receiving system what telephone number was dialed by the caller. In theAvaya Aura® Experience Portal system this is often used to direct the call to a particular speech application, which is identified with that dialed number.
DNIS	See dialed number identification service (DNIS) on page 44.
DTMF	See dual tone multi-frequency (DTMF) on page 44.
dual tone multi-frequency (DTMF)	The system used by touchtone telephones, DTMF assigns a specific frequency (consisting of two separate tones) to each telephone key on the keypad, so that it can easily be identified by a microprocessor.
Eclipse	A Java-based open-source extensible IDE (integrated development environment) that provides application developers a feature-rich interface to develop their applications. Orchestration Designer is designed as a set of Eclipse plug-in modules that make it possible for application developers to design and build speech applications without having to write the code manually.
gateway	A network point that acts as an entry point to another network. In the context of Orchestration Designer and VoIP applications, a gateway is the entry point, often associated with one or more switches, to the interactive voice response (IVR) system application environment. See interactive voice response (IVR) system on page 45.
grammar	Elements that recognize the input received through inbound voice calls and messages. In the context of IVR or speech applications, a grammar is a predefined set of words or DTMF tones that a speech application uses in conjunction with automated speech recognition (ASR) technology to interpret and respond to caller inputs. That is, grammars are lists of possible responses that callers make when responding to prompts by using

	spoken replies. Grammars define which words or phrases the ASR engine can recognize and respond to. In the context of text-based applications, a grammar is a predefined set of words in a message application that a text-processing system can use to interpret and respond to an inbound SMS or email message. The text-processing system collects and recognizes the input from inbound SMS and email messages and uses this input to direct the flow of a message application.
H.323	A hierarchical, IP-based telephony standard for connecting IP telephones and speech applications to switches.
IC	See Interaction Center (IC) on page 45.
IDE	See integrated development environment (IDE) on page 45.
integrated development environment (IDE)	A software application that usually provides a GUI environment, a text and/or code editor, a compiler and/or interpreter, and a debugger. This environment means that application or web developers can develop, test, and build their applications or Web sites within a single integrated space.
Interaction Center (IC)	A multichannel contact management platform that enables businesses to align real-time contact center operations with business objectives.
interactive voice response (IVR) system	A system, such as Avaya Aura® Experience Portal or Avaya IR, in which callers interact with a self-service application to get information, conduct transactions, or help with problems.
IVR system	See interactive voice response (IVR) system on page 45.
JDBC	An application program interface (API) on page 43 specification in which programs written in Java connect with and access data contained in database programs using Structured Query Language (SQL) on page 47.
localization	The process of modifying an application to operate and be understood in a different language, or locale. This usually involves modifying any phrases, prompts, and grammars associated with an application.
MAS	Avaya Media Server.
MPS	Media Processing Server.
MRCP	Media Resource Control Protocol.
NDM	See Nuance Dialog Module (NDM) on page 46.

notebook

(Also known as a tabbed or stacked notebook) In the Eclipse context, a notebook is a set of views “stacked” on top of one another as a space saving measure. The views in the notebook are accessible by clicking tabs arranged along the top of the notebook. See the Eclipse documentation.

Nuance Dialog Module (NDM)

Speech application modules produced by Nuance software products, similar to speech application modules created by using Orchestration Designer. You can use NDMs in the Orchestration Designer speech applications. Orchestration Designer supports NDM version 5.0 and later.

Before version 5.0, Nuance Dialog Module (NDM) was known as Open Speech Dialog Module (ODSM).

See Open Speech Dialog Module (OSDM) on page 46.

Open Speech Dialog Module (OSDM)

Speech application modules produced by Nuance software products, similar to application modules created with Orchestration Designer. OSDMs can be used in Orchestration Designer applications. (Orchestration Designer supports the following OSDM versions: Address OSDM 2.0.3, Core OSDM 2.0.4, and Name OSDM 2.0.1.)

OSDM is renamed to Nuance Dialog Module (NDM) from version 5.0 and later.

OSDM

See Open Speech Dialog Module (OSDM) on page 46.

palette

In the Orchestration Designer Editor views, this is the pane to the left of the view, in which editor options are displayed and selected.

Real-time Transfer Protocol (RTP)

A protocol for transmitting “real-time” data, such as audio or video data, across the Internet. This protocol does not guarantee “real-time” delivery of such data, but it does provide mechanisms to support data “streaming.”

RTP

See Real-time Transfer Protocol (RTP) on page 46.

RTSP

The Real Time Streaming Protocol, serves as a control protocol, and as a jumping off point for negotiating transports, such as RTP, multicast and unicast, and negotiating codecs off of servers in a file format independent way.

SCE

See service creation environment (SCE) on page 46.

service creation environment (SCE)

A set of software tools used to develop, test, and debug speech applications. Orchestration Designer is an SCE.

servlet

A small program that runs on a server, often Java-based.

servlet engine
A program that coordinates the overall operation and integration of a number of servlets. In the context of Orchestration Designer, the supported servlet engines are Apache Jakarta Tomcat, IBM WebSphere/ WebSphere Express, Oracle WebLogic, and JBoss AS7.

Session Initiation Protocol (SIP)
A signaling protocol for the Internet that makes it possible to set up conferencing, telephony, events notification, and instant messaging. Within a VoIP framework, it initiates call setup, routing, authentication, to endpoints within an IP domain.

SIP
See Session Initiation Protocol (SIP) on page 47.

speech recognition
See automated speech recognition (ASR) on page 43.

speech synthesis
See text-to-speech (TTS) on page 48.

speech user interface (SUI)
Any software interface in which the user interacts with the system using speech commands and audio prompts.

SQL
See Structured Query Language (SQL) on page 47.

SSL
Secure Sockets Layer.

A protocol for transmitting private data securely over the Internet. By convention, URLs that use SSL require a connection using the HTTPS protocol, rather than just HTTP.

SSML
Speech Synthesis Markup Language.

A W3C standard designed to provide an XML-based markup language for assisting with the generation of synthetic speech in Web and other applications. The essential role of the markup language is to provide authors of synthesizable content a standard way to control aspects of speech such as pronunciation, volume, pitch, rate, and so forth, across different synthesis-capable platforms.

stacked notebook
See notebook on page 46.

Structured Query Language (SQL)
A standard interactive and programming language for getting data to and from a database.

SUI
See speech user interface (SUI) on page 47.

tabbed notebook
See notebook on page 46.

TDD
See Telecommunications Display Device (TDD) on page 48.

Telecommunications Display Device (TDD)	Sometimes designated as a teletypewriter (TTY) device, a telephone equipped with a keyboard and display, used by hearing- or speech-impaired callers to send and receive typed messages.
telephone user interface (TUI)	Any software interface in which the user interacts with the system using a telephone or similar device.
teletypewriter (TTY) device	See Telecommunications Display Device (TDD) on page 48.
text-to-speech (TTS)	Technology by which information in text format is rendered as audio output using a speech synthesis engine to simulate human speech.
TTS	See text-to-speech (TTS) on page 48.
TTY	See Telecommunications Display Device (TDD) on page 48.
TUI	See telephone user interface (TUI) on page 48.
VoiceXML	(Sometimes presented as VXML) Voice eXtensible Markup Language. A specification which provides for a user to interact with Internet-based resources using voice recognition technology. Instead of a typical Web browser that requires a combination of HTML, keyboard, and mouse device, VoiceXML relies on an Internet voice browser and/or telephone. Using VoiceXML, the user interacts with the Web “page” by listening to audio outputs (either pre-recorded or using a technology such as TTS) and by submitting input in the form of the user’s natural speaking voice and/or manual responses, such as telephone key presses.
Web service	A standardized way of offering Web-based applications or services. Because Web services are Web-based and standards-based applications, delivered over the Internet, Web services make it possible for organizations to communicate and share data that use different file formats and programming languages.
workspace	In Orchestration Designer, the area within the Editor view used to build the functionality for the selected editor. For example, in the Call Flow Editor, this is the space to the right of the palette, in which you drag the nodes that represent application functions. See palette on page 46.
WSDL	Web services Description Language. An XML-formatted language used to describe a Web service’s capabilities.
XML	eXtensible Markup Language.

A specification for the presentation of Internet documents, one which expands on the capabilities of HTML. A pared-down version of SGML (Standard Generalized Markup Language), XML makes it possible for designers to create their own customized tags, which in turn makes it possible to do things over the Internet that cannot be done using simple HTML.

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