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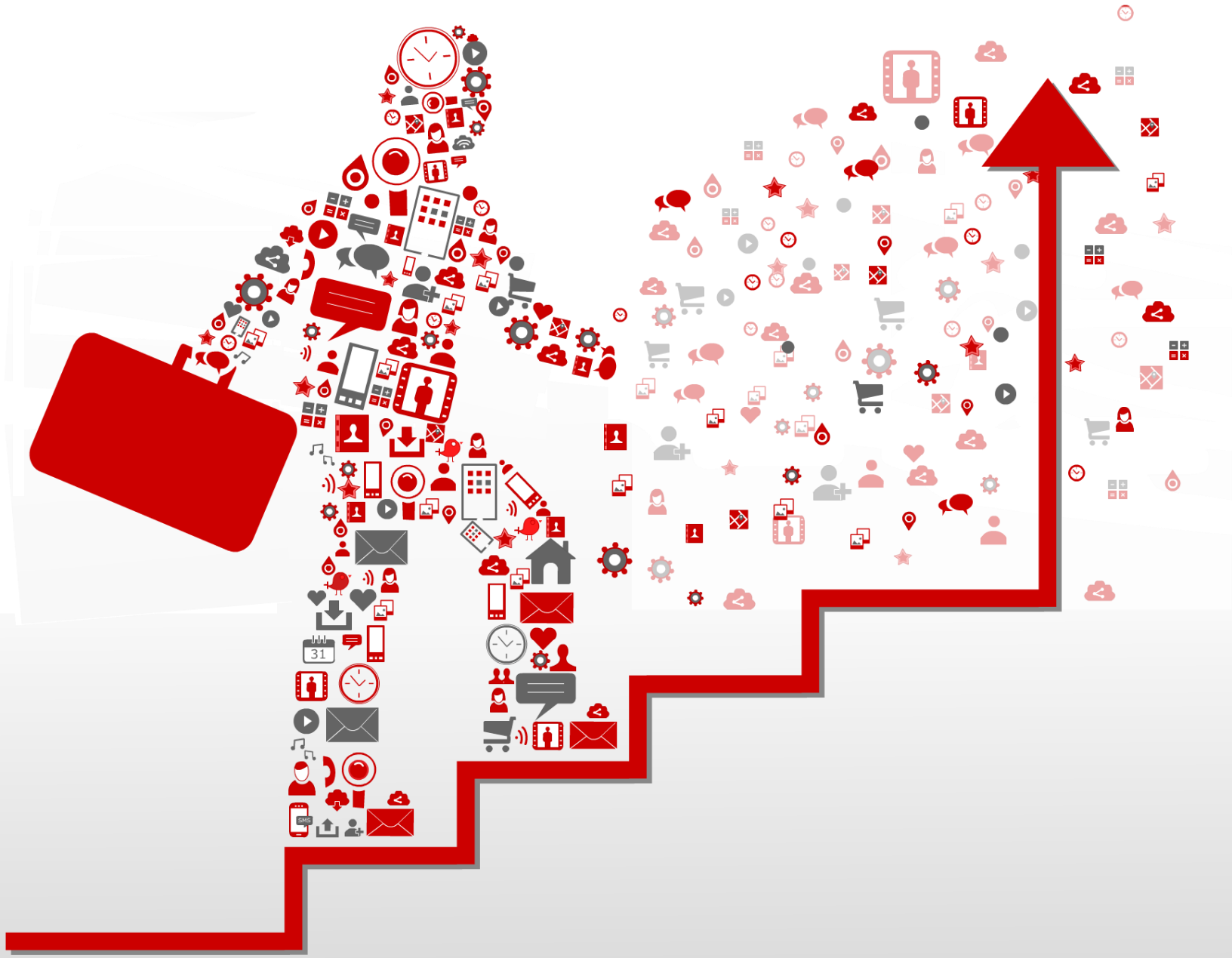
Software Installation Guide



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Software Installation Guide for 2024C Programming Avaya Breeze™ Snap-in using Java SDK

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Bring Your Own Device (BYOD) Requirements

You will be using your own Windows or MAC OS PC for the following:

- ***System Management (web browser) IE 9 or later is OK. Firefox or Chrome is preferred.***
- ***Software Development (Java, Eclipse, Maven, Avaya Breeze™)***
- ***Making and Receiving calls with Avaya One-X Communicator soft client.***

Scenario

Prior to the start of class, you will need to follow the steps outlined in this guide for the installation of the software needed.

- It is important that all the environment variables are set correctly and that the software is installed in the correct order: Java, Eclipse, Maven, Avaya Breeze™ SDK.
- The Avaya Breeze™ server provides a command line interface used for certain debugging operations. While the Eclipse RSE (remote system explorer) has an SSH command view, it is not suitable for some full-screen operations. To address this, make sure your PC has an SSH terminal client installed. Mac OS and Linux have this loaded by default. For Windows, PuTTY (PuTTY Download) is a commonly used client.

Overview

The goal of this guide is to get the Software Development Kit (SDK) installed so you can start developing snap-ins on the Avaya Breeze™. When you are ready to learn how to install, configure and test a snap-in, to make sure your lab is set up correctly, see How to Install, Configure, and Test an Avaya Breeze™ Snap-in. To develop snap-ins, you should have some knowledge of Java. After following this

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guide you will be ready to learn how to develop your very own Avaya Breeze™ snap-ins using the SDK. This guide will walk you through the following steps.

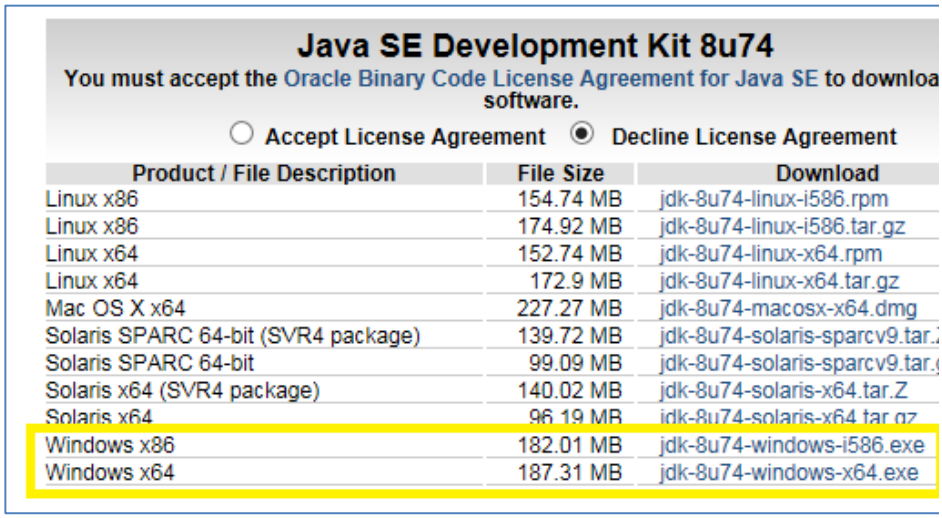
- Getting the Eclipse IDE installed and configured.
- Getting Apache Maven installed and configured.
- Obtaining and loading the Avaya Breeze™ SDK into the IDE.
- Validating your Avaya Breeze™ is installed and configured correctly.

Follow the instructions below to successfully complete these tasks.

Step 1 Eclipse installation

Step Instructions

1. You must first install a Java Environment. Since you will be developing, make sure to install the JDK (Java SDK Download) We recommend the Oracle JDK SE 1.7.x or later although any of the JDKs should work as long as they are version 1.7.x.



2. We require that you download and use the Mars version of Eclipse. It already includes the Maven Plug-in. If you have an earlier version of Eclipse, you must upgrade to the Mars version. Download the Package Solution named "Eclipse IDE for Java EE Developers" (Eclipse Mars Download).Get the one that matches your development box, Windows or Linux, 32 bit or 64 bit. We recommend that you download and use the zip install.

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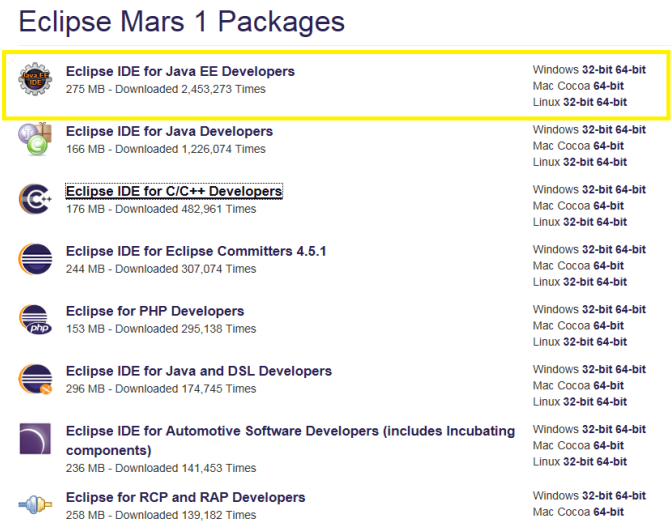


Step 2 Apache Maven installation

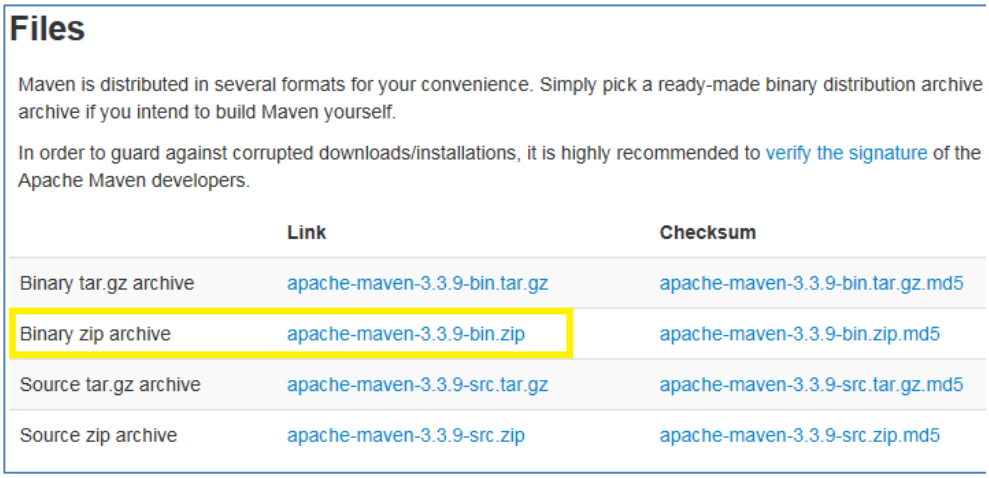
Step Instructions

The installation of Apache Maven is a simple process of extracting the archive and adding the bin folder with the mvn command to the PATH.

Detailed steps are:

- Ensure JAVA_HOME environment variable is set and points to your JDK installation
- Extract distribution archive in any directory
- unzip apache-maven-3.3.9-bin.zip

1. We require that you download and use Apache Maven 3.3.9. (Maven Download).



Files

Maven is distributed in several formats for your convenience. Simply pick a ready-made binary distribution archive archive if you intend to build Maven yourself.

In order to guard against corrupted downloads/installations, it is highly recommended to verify the signature of the Apache Maven developers.

	Link	Checksum
Binary tar.gz archive	apache-maven-3.3.9-bin.tar.gz	apache-maven-3.3.9-bin.tar.gz.md5
Binary zip archive	apache-maven-3.3.9-bin.zip	apache-maven-3.3.9-bin.zip.md5
Source tar.gz archive	apache-maven-3.3.9-src.tar.gz	apache-maven-3.3.9-src.tar.gz.md5
Source zip archive	apache-maven-3.3.9-src.zip	apache-maven-3.3.9-src.zip.md5

2. These instructions assume you chose C:\Users. The subdirectory apache-maven-3.3.9 will be created from the archive.
3. Add the M2_HOME environment variable by opening up the system

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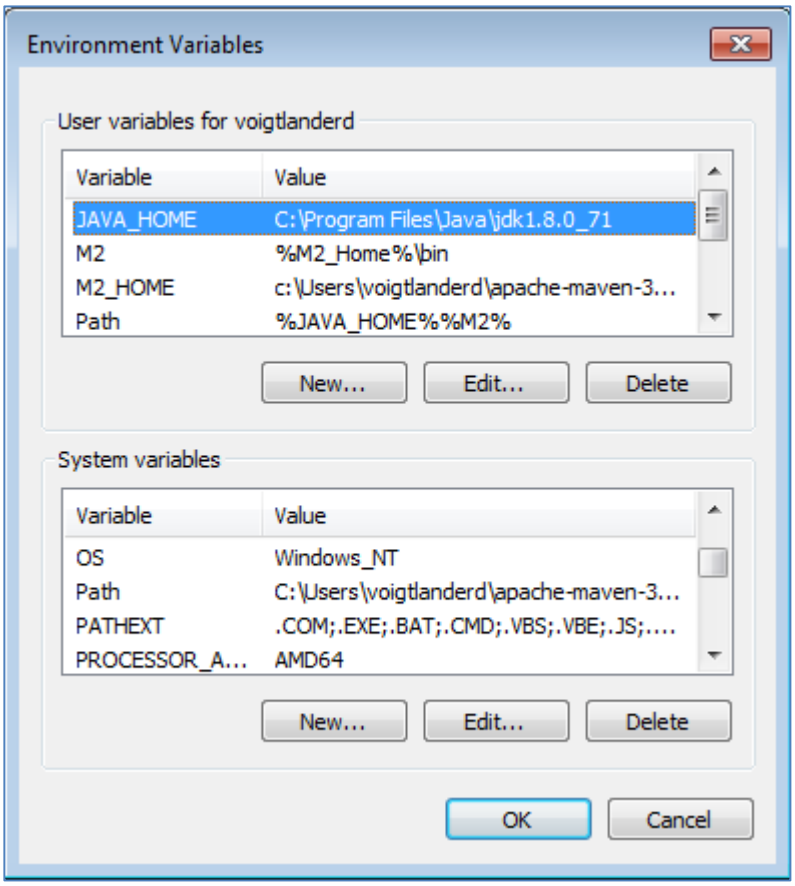
properties (WinKey + Pause), selecting the Advanced tab, and the Environment Variables button, then adding the M2_HOME variable in the user variables with the value C:\Program Files\Apache Software Foundation\apache-maven-3.3.3. Be sure to omit any quotation marks around the path even if it contains spaces.

4. In the same dialog, add the M2 environment variable in the user variables with the value %M2_HOME%\bin.
5. In the same dialog, update/create the Path environment variable in the user variables and prepend the value %M2% to make Maven available in the command line.
6. In the same dialog, make sure that JAVA_HOME exist in your user variables or in the system variables and it is set to the location of your JDK, e.g. C:\Program Files\Java\jdk1.7.x and that %JAVA_HOME%\bin is in your PATH environment variable.



7. Open a new command prompt (Winkey + R then type cmd) and run mvn --version to verify that it is correctly installed.

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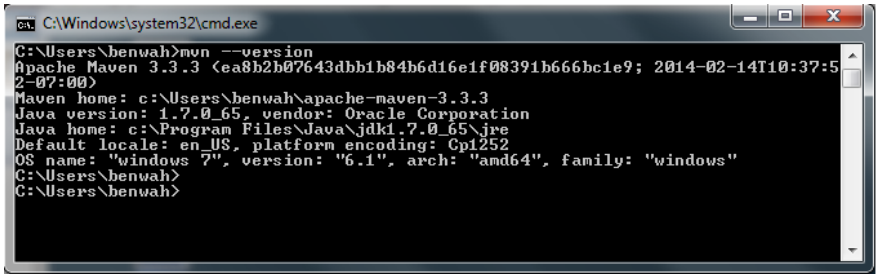


Step 3 Installing the Engagement Development Platform SDK

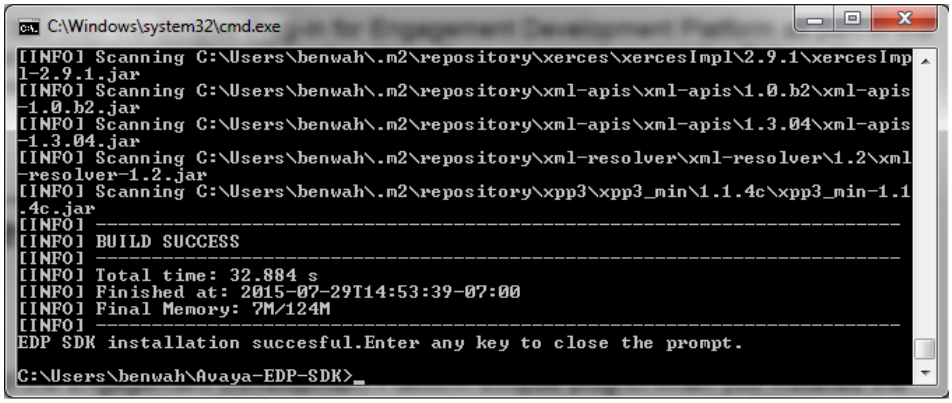
After you install the correct version of Eclipse and Maven you are ready to install the Engagement Development Platform SDK. The SDK is packaged in one zip file. Perform the following steps for obtaining and installing the SDK.

Step Instructions

1. Click the Avaya Engagement Development Platform SDK link at the Avaya DevConnect website, http://www.avaya.com/EDPdeveloper.
2. Read the End User License Agreement (EULA). The SDK zip will be downloaded if you accept.
3. Unzip it to a directory or folder, for example, Avaya-EDP-SDK. This directory will be referred to as SDK_HOME in this guide.
4. Find your way to SDK_HOME and for Linux or Mac OS, run bash install.sh or for Windows, run install.bat
5. Accept the EULA agreement by entering y. The SDK components will be set up into your local repository. This may take a while to complete.
6. During the install, you will be prompted to install the Eclipse Plug-in for Avaya Breeze™. If you want to install the plug-in:

    a. Enter y.

    b. Enter the complete path to the Eclipse install directory without quotes. For example, enter C:\Eclipse.



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The Eclipse Plug-in for Engagement Development Platform allows you to execute common Engagement Development Platform actions without executing commands on multiple systems. If you are a Windows user and you installed Eclipse using the .exe, you will have to copy the eclipse plug-in jar manually to make it work. Copy file lib/com.avaya.zephyr.eclipse.plugin.jar from the SDK to the Eclipse dropins directory.

Note

If the Eclipse installation directory is under Program Files, the command pr Windows 7 and later releases should be launched with Administrator rights SDK and Eclipse plug-in.

7. If Eclipse is running, restart it.

Next Steps

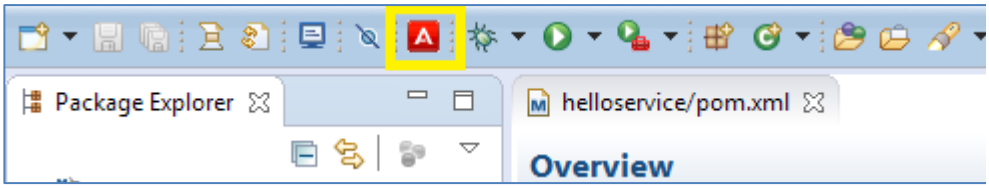
If you did not elect to install the Eclipse Plug-in for Engagement Development Platform as part of the SDK install, you can install it separately at another time. If you elected to install the Eclipse Plug-in for Engagement Development Platform, you may configure it whenever Eclipse is running.

Step 3a Installing the Avaya Breeze™ Eclipse plug-in

If you did not install the Avaya Breeze™ Eclipse plug-in when you installed the Avaya Breeze™ Platform SDK, you have two choices. You can rerun the SDK installation, or complete the steps in this procedure.

Step Instructions

1. Locate and cd to the folder where you unzipped the SDK.
2. For Linux run the command eclipse.sh. For Windows, run the command eclipse.bat
3. Enter y to install the Eclipse plug-in.
4. If Eclipse is running, restart it.
5. Verify that a new Avaya icon is now visible on the Eclipse Toolbar.



Next Steps

To configure the Avaya Breeze™ Eclipse plug-in follow the instructions in the Avaya Breeze™ Snap-in Developer's Guide. Now proceed to Importing the Hello World Snap-in.

Step 4 Installing the Hello World snap-in

We have written an Avaya Breeze™ service project named the Hello service, and included the source in the SDK. Let's use it to verify that the SDK is installed

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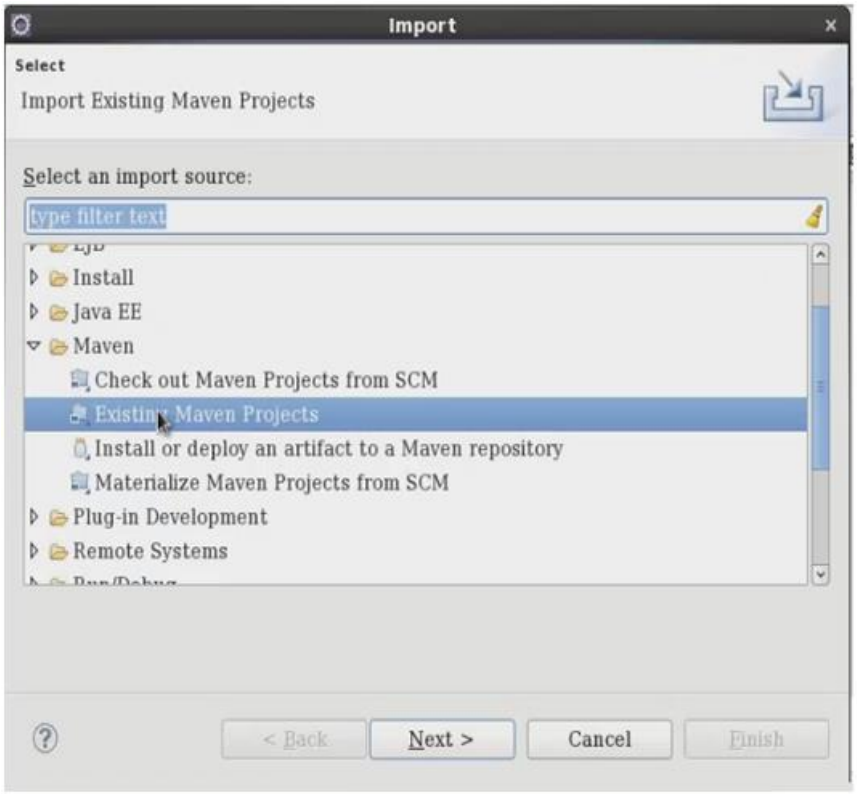
correctly and that your development environment is ready to go.

Step Instructions

1. Inside Eclipse, click File > Import . Then under Maven, select Existing Maven Projects.



2. Click Next and browse to SDK_HOME/SDK-ZIP/samples/helloservice, where SDK_HOME is the place where you unzipped the SDK.
3. Click Finish and watch it install.

This will take a while, errors may appear briefly, but once the import is finished no errors should be visible. Four related projects should now show up in your Eclipse Project Explorer Window.

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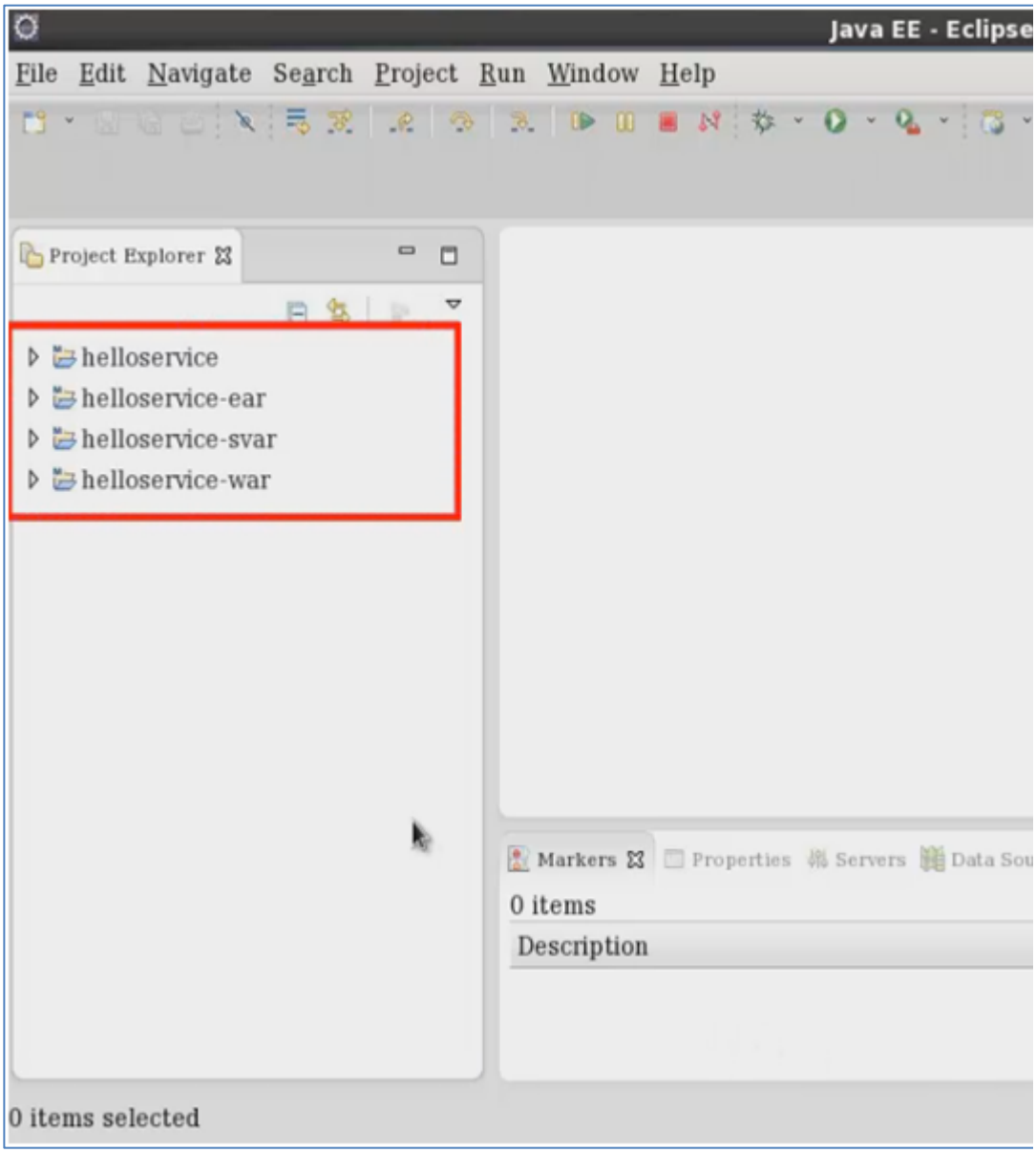

Step 4a Building the Hello World snap-in

Step Instructions

1. Right click on the top project, the one named simply helloservice, and go to **Run as** > **Maven Install**.

This will take some time the first time, as it will have to download a lot of files into the local repository. It is OK if some warnings appear.

2. When finished, hit the F5 key to refresh the view.

This is always a good idea when using Eclipse.

3. Expand the helloservice-svar /target directory.

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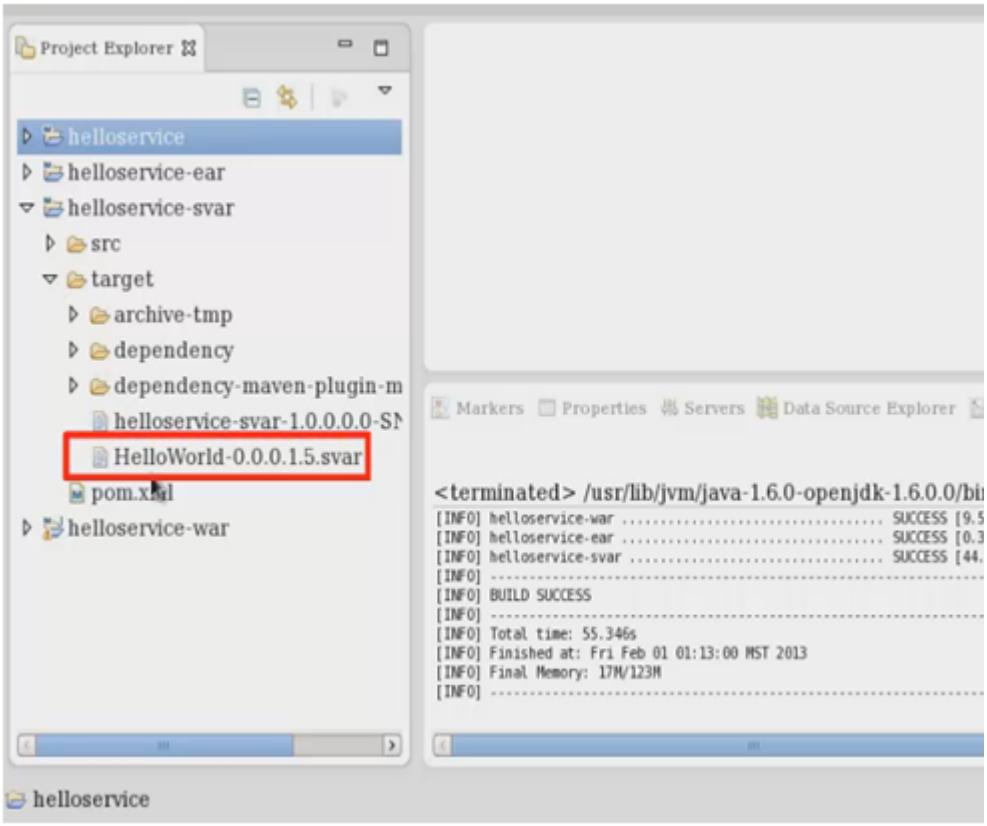
There should be a helloworld-<*X.X.X.X.X*>.svar file there. The *X.X.X.X.X* is a version number such as HelloWorld-2.0.0.0.0.svar.



This .svar file is a type of zip file that contains all the parts of a working Engagement Development Platform service. It can be deployed on the Avaya Breeze™ server.
Now that you can build an Avaya Breeze™ snap-in. The last step is to get rid of the helloservice so you can start clean.

4. Select all of the projects in the Project Explorer window and click **Delete**.
5. Leave the box that says Delete content on disk unchecked and click OK.
    - The Project Explorer Window should now be empty.

Congratulations, the SDK is installed correctly and your development environment is proven ready.

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END

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