Oracle® Banking Platform Collections

Customization Guide

Release 2.3.0.0.0

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Oracle Banking Platform Collections Customization Guide, Release 2.3.0.0.0

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Preface

This document describes the various software and configuration options required to customize the Oracle Banking Platform Collections.

This preface contains the following topics:

Audience

This document is intended for the users customizing Oracle Banking Platform Collections.

Documentation Accessibility

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Organization of the Guide

This document contains:

Chapter 1, "Customizing Collections"

This chapter describes the steps to be performed to configure Collections.

Conventions

The following text conventions are used in this document:

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

1 Customizing Collections

This chapter describes the steps to be performed to configure Collections.

1.1 Prerequisites

Following are the prerequisites:

- Microfocus 5.1 wrap pack 3 server is installed.
- Jdk1.6.0_29 64 bit is installed.

1.2 Using the Collection Installer

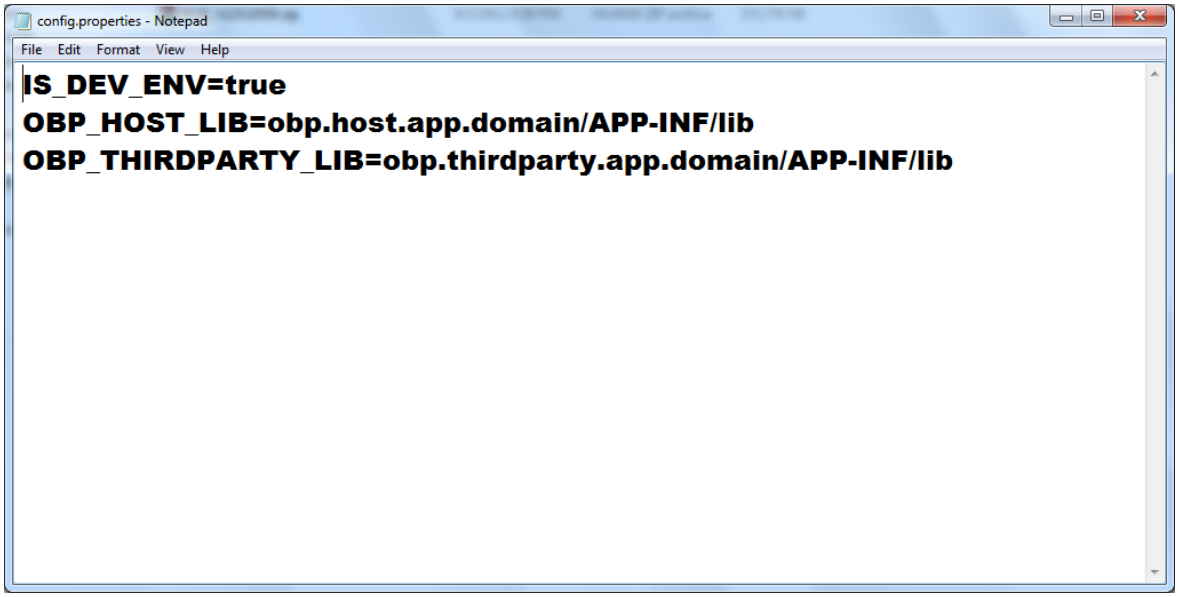
To use Collection Installer for customization setup:

1. Download the Collection Installer from the following location:

   http://edelivery.oracle.com/

2. Change the **IS_DEV_ENV** property in config.properties to *True*.

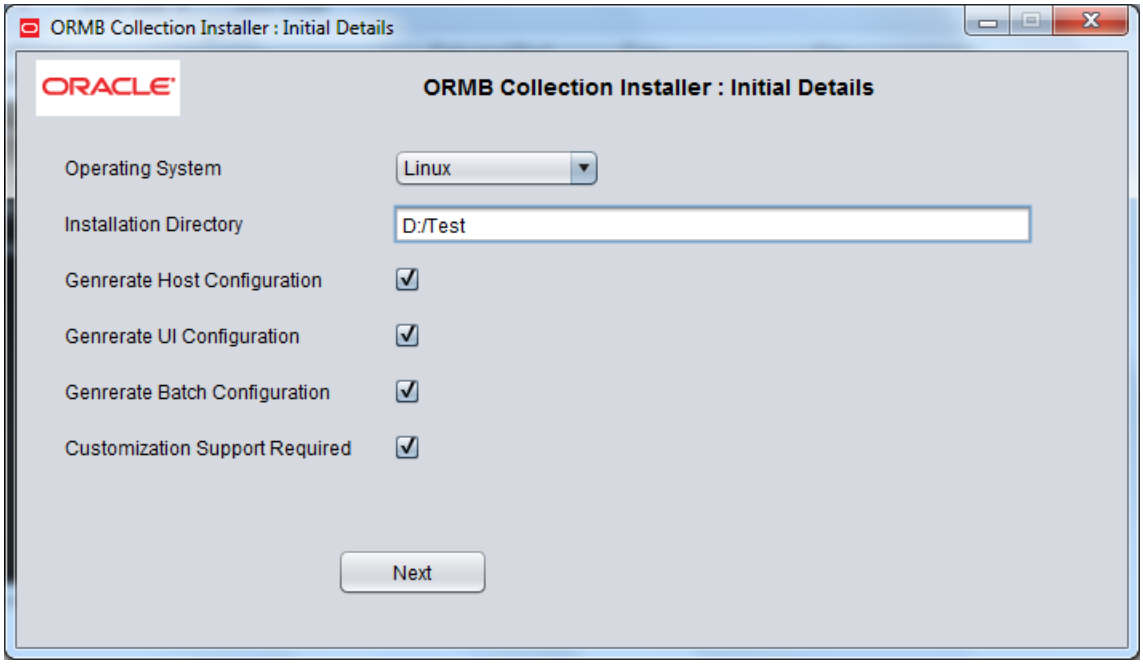
Figure 1–1 config.properties



3. Run the executable jar. The Collection Installer opens.

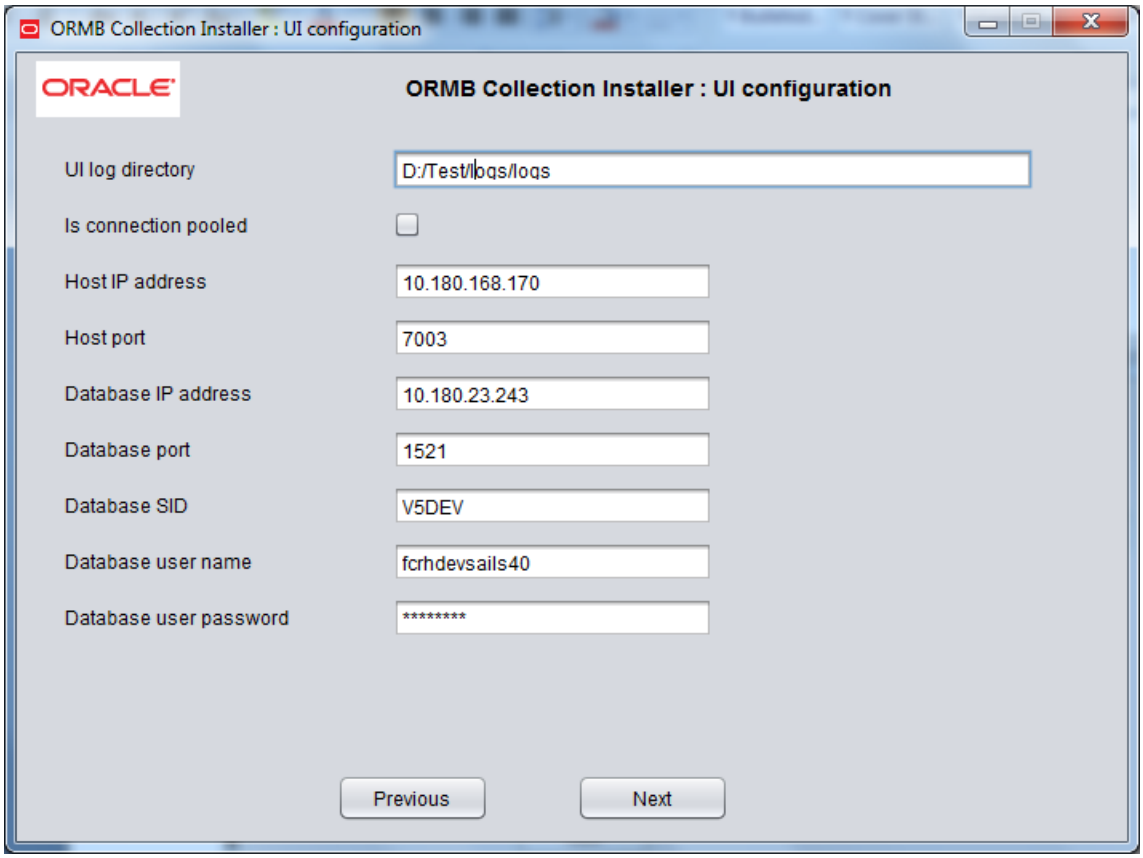
4. In the Initial Details dialog box, enter the **Installation Directory** as *D:/Test* as the location where collection is to be installed.

Figure 1–2 Collection Installer: Initial Details



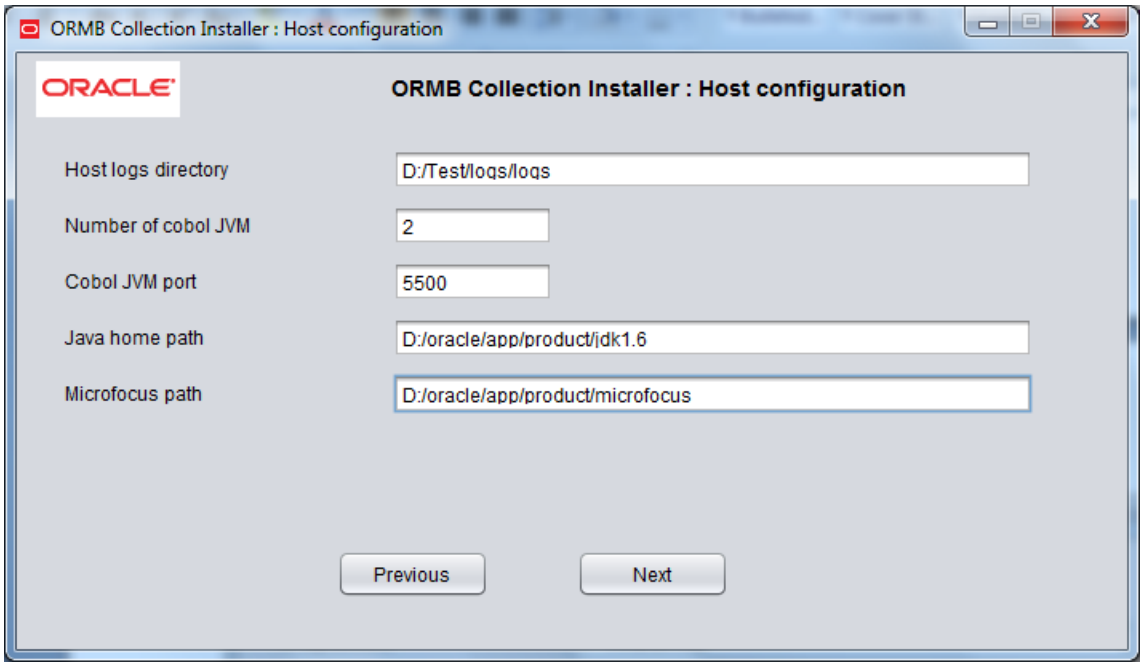
5. Click **Next.**
6. In the UI Configuration dialog box, enter the required details and click **Next.**

Figure 1–3 Collection Installer: UI Configuration



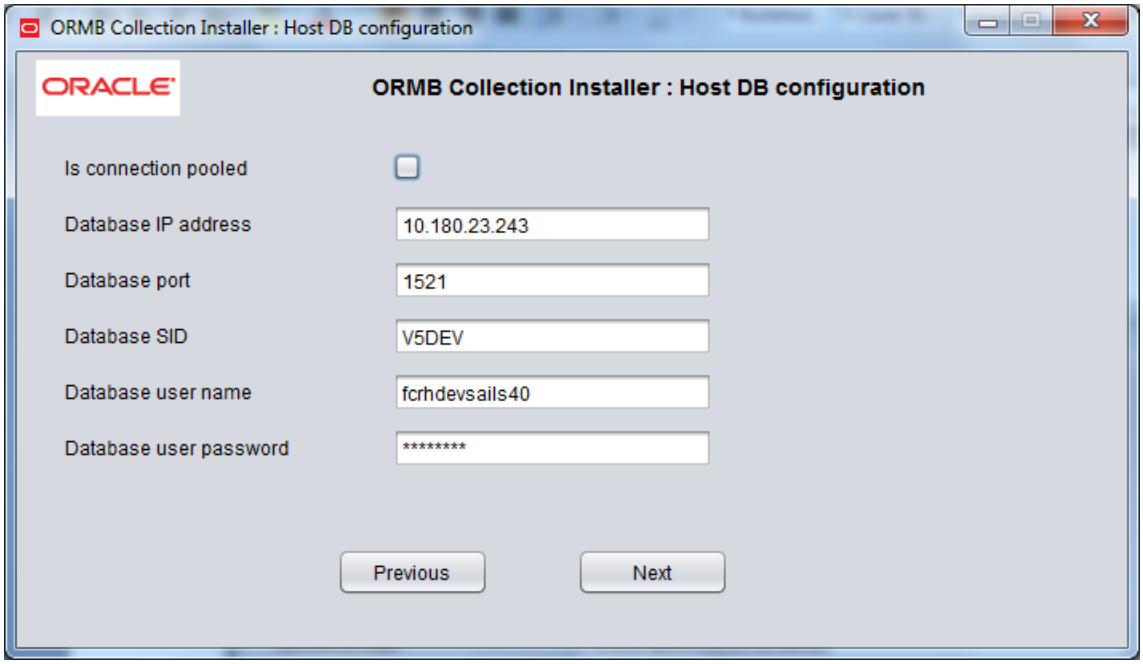
7. In the Host Configuration dialog box, enter the required details and click **Next.**

Figure 1–4 Collection Installer: Host Configuration



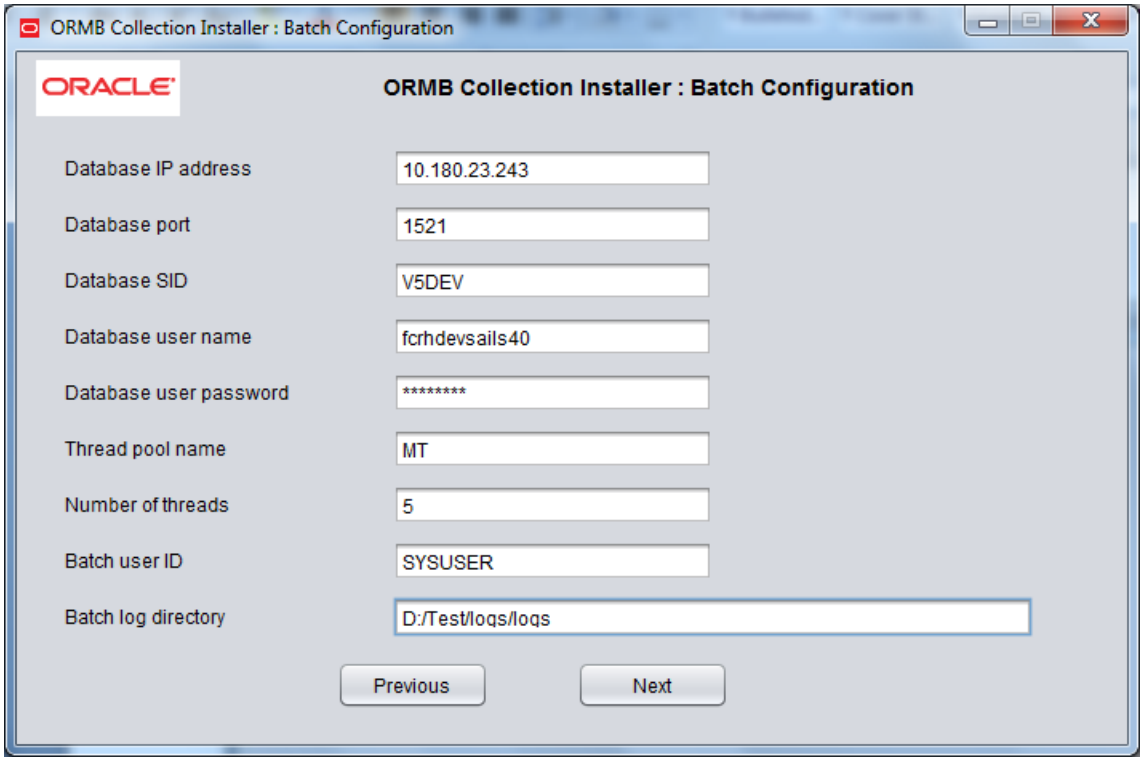
8. In the Host DB Configuration dialog box, enter the required details and click **Next.**

Figure 1–5 Collection Installer: Host DB Configuration



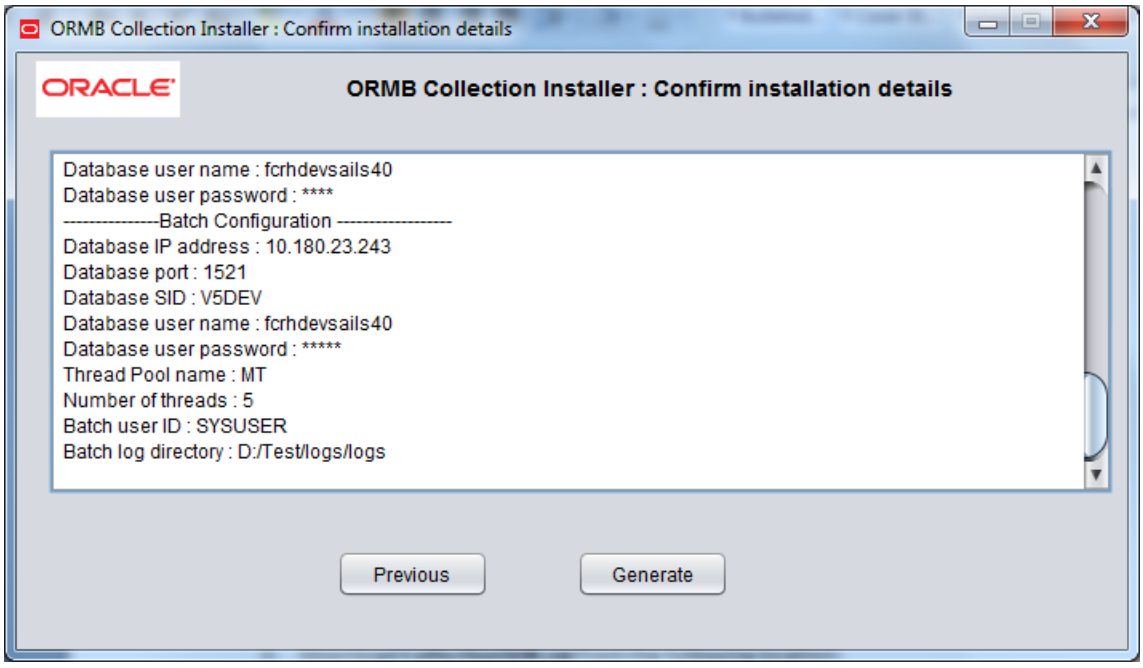
9. In the Batch Configuration dialog box, enter the required details and click **Next.**

Figure 1–6 Collection Installer: Batch Configuration



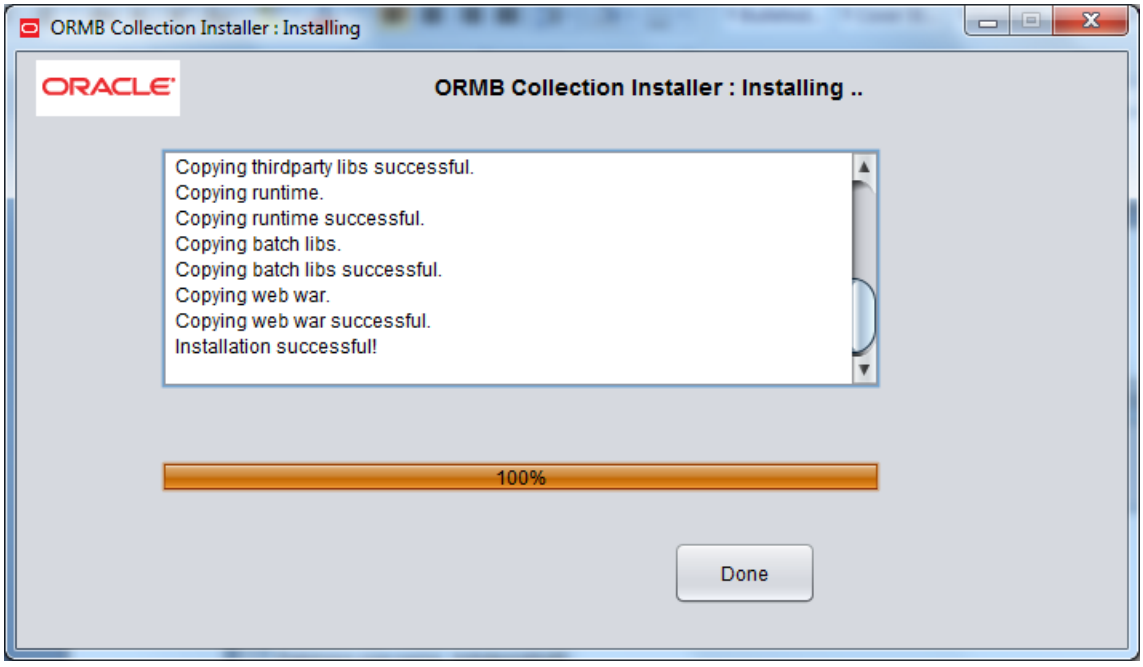
10. Click **Generate.**

Figure 1–7 Collection Installer: Confirm Installation Details



11. Click **Done.**

Figure 1–8 Collection Installer: Installation Complete



1.3 Customizing Collections

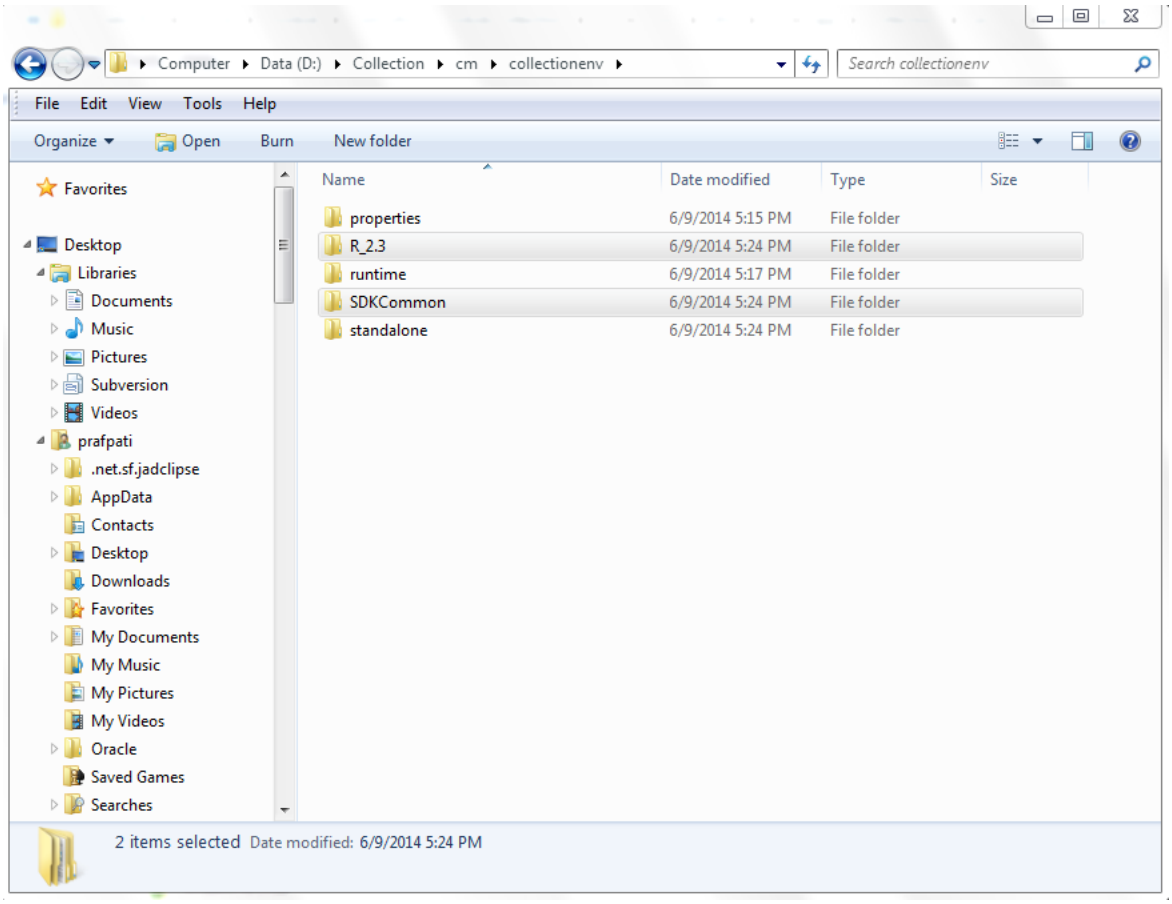
To customize Collections:

1. Download **CollectionSDK.rar** from the following location:

http://edelivery.oracle.com/

2. Unzip the CollectionSDK.rar on your D: drive.
3. Copy the **SDKCommon** and **R_2.3** folders to your collection environment.

Figure 1–9 Copy SDKCommon and R_2.3



1.4 Downloading and Configuring Software and Jar Files

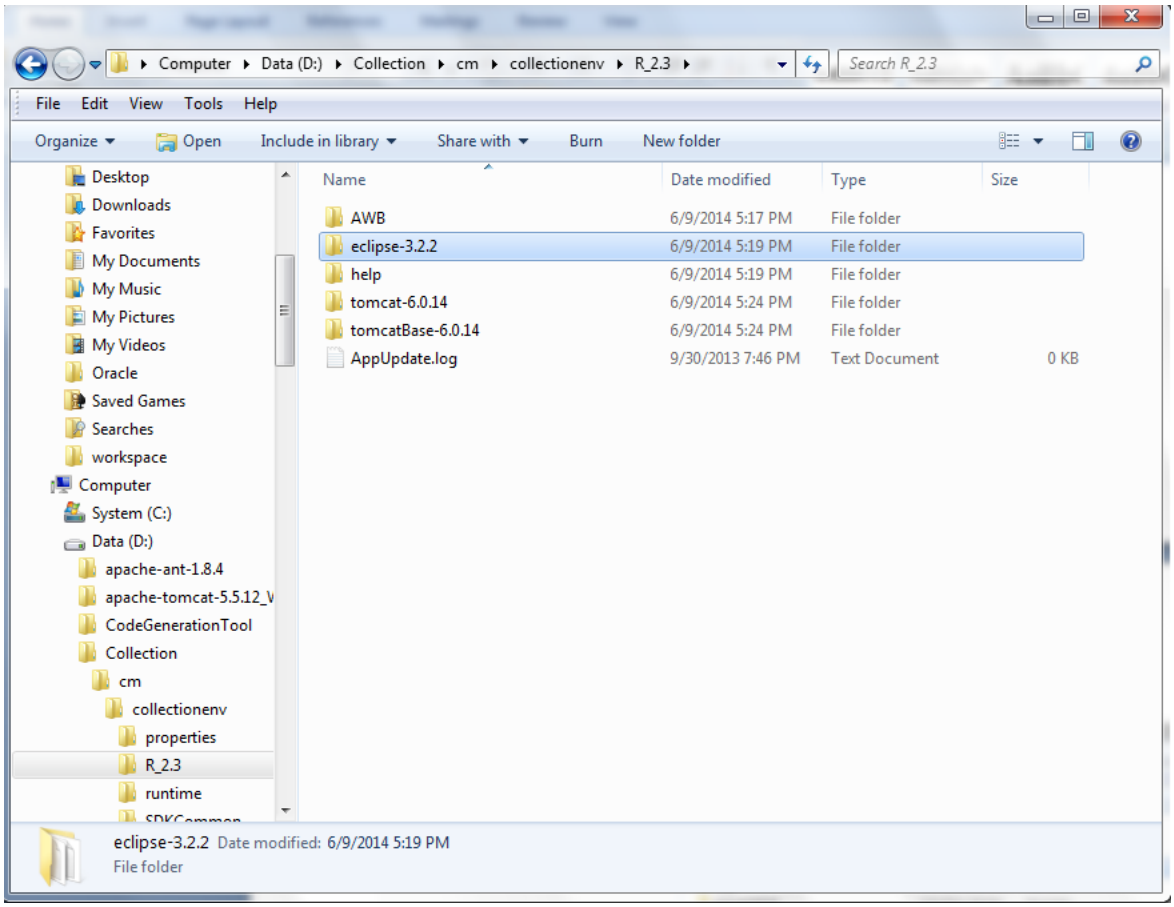
This section provides information on downloading and configuring the requisite software and jar files.

1.4.1 Downloading Eclipse

To download Eclipse:

1. Download Eclipse 3.2.2.
2. Copy the downloaded Eclipse folder to the R_2.3 folder.

Figure 1–10 Copy Eclipse 3.2.2



1.4.2 Downloading Tomcat

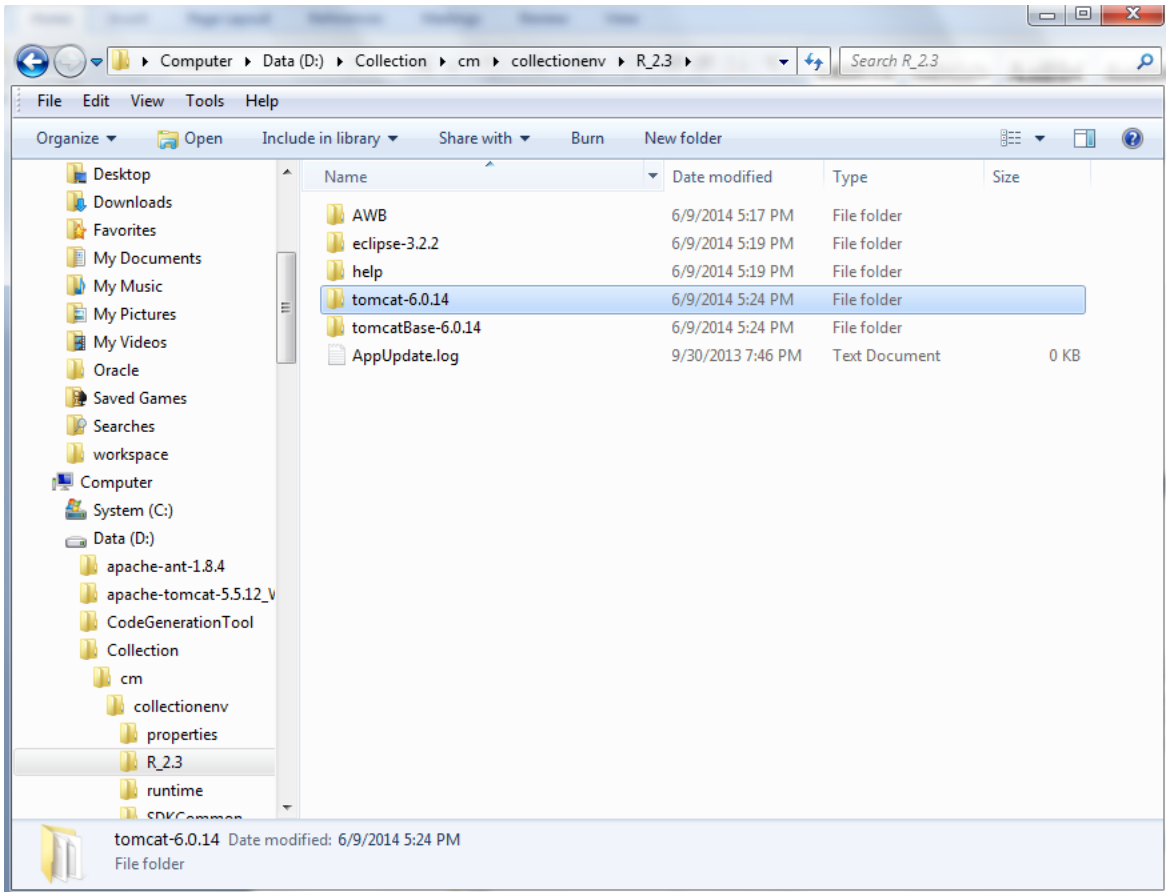
To download Tomcat:

1. Copy Plugins from SDKCommon to Eclipse plugin folder.

   From location : \SDKCommon\plugins

   To location : \R_2.3\Eclipse\plugins
2. Download Tomcat 6.0.14.
3. Copy the downloaded Tomcat folder to the R_2.3 folder.

Figure 1–11 Copy Tomcat 6.0.14



4. Copy the following code into a notepad and save it as a batch file named **rmb.bat**.

```
---------------------------------------------------------------------------------------------------------

z  rmb.bat D:\Collection\cm\collectionenv\R_2.3\tomcat-6.0.14\bin\rmb.bat   ,
C:\Users\AtulChi\AppData\Local\Temp\rmb.bat
  set SPLEBASE=D:/Collection/cm/collectionenv
set MFDIR=D:/Softwares/MicroFocus5.1/Bin
set JAVA_HOME=D:/Program Files/java/jdk1.6.0_21

set CONFIGDIR=properties/web
set PATH=%SPLEBASE%/runtime;%MFDIR%;%PATH%;
set CLASSPATH=%SPLEBASE%/properties/web;%CLASSPATH%;
set CATALINA_HOME=%SPLEBASE%/R_2.3/tomcat-6.0.14
set CATALINA_BASE=%SPLEBASE%/R_2.3/tomcatBase-6.0.14
set JAVA_OPTS=-server
---------------------------------------------------------------------------------------------------------
```

5. Copy the following code into another notepad and save it as a batch file named **catalina.bat**.

```
---------------------------------------------------------------------------------------------------------

§$   catalina.bat D:\Collection\cm\collectionenv\R_
2.3\tomcat-6.0.14\bin\catalina.bat    1
C:\Users\AtulChi\AppData\Local\Temp\catalina.bat
#  @echo off
if "%OS%" == "Windows_NT" setlocal
```

```
rem ---------------------------------------------------------------------------
rem Start/Stop Script for the CATALINA Server
rem
rem Environment Variable Prequisites
rem
rem   CATALINA_HOME   May point at your Catalina "build" directory.
rem
rem   CATALINA_BASE   (Optional) Base directory for resolving dynamic portions
rem                   of a Catalina installation.  If not present, resolves to
rem                   the same directory that CATALINA_HOME points to.
rem
rem   CATALINA_OPTS   (Optional) Java runtime options used when the "start",
rem                   "stop", or "run" command is executed.
rem
rem   CATALINA_TMPDIR (Optional) Directory path location of temporary directory
rem                   the JVM should use (java.io.tmpdir).  Defaults to
rem                   %CATALINA_BASE%\temp.
rem
rem   JAVA_HOME       Must point at your Java Development Kit installation.
rem                   Required to run the with the "debug" argument.
rem
rem   JRE_HOME        Must point at your Java Runtime installation.
rem                   Defaults to JAVA_HOME if empty.
rem
rem   JAVA_OPTS       (Optional) Java runtime options used when the "start",
rem                   "stop", or "run" command is executed.
rem
rem   JSSE_HOME       (Optional) May point at your Java Secure Sockets
Extension
rem                   (JSSE) installation, whose JAR files will be added to the
rem                   system class path used to start Tomcat.
rem
rem   JPDA_TRANSPORT  (Optional) JPDA transport used when the "jpda start"
rem                   command is executed. The default is "dt_shmem".
rem
rem   JPDA_ADDRESS    (Optional) Java runtime options used when the "jpda
start"
rem                   command is executed. The default is "jdbconn".
rem
rem   JPDA_SUSPEND    (Optional) Java runtime options used when the "jpda
start"
rem                   command is executed. Specifies whether JVM should suspend
rem                   execution immediately after startup. Default is "n".
rem
rem   JPDA_OPTS       (Optional) Java runtime options used when the "jpda
start"
rem                   command is executed. If used, JPDA_TRANSPORT, JPDA_
ADDRESS,
rem                   and JPDA_SUSPEND are ignored. Thus, all required jpda
rem                   options MUST be specified. The default is:
rem
rem                   -Xdebug -Xrunjdwp:transport=%JPDA_TRANSPORT%,
rem                       address=%JPDA_ADDRESS%,server=y,suspend=%JPDA_
SUSPEND%
rem
rem $Id: catalina.bat 537518 2007-05-12 21:11:40Z markt $
rem ---------------------------------------------------------------------------

rem Guess CATALINA_HOME if not defined
set CURRENT_DIR=%cd%
```

```
if not "%CATALINA_HOME%" == "" goto gotHome
set CATALINA_HOME=%CURRENT_DIR%
if exist "%CATALINA_HOME%\bin\catalina.bat" goto okHome
cd ..
set CATALINA_HOME=%cd%
cd %CURRENT_DIR%
:gotHome
if exist "%CATALINA_HOME%\bin\catalina.bat" goto okHome
echo The CATALINA_HOME environment variable is not defined correctly
echo This environment variable is needed to run this program
goto end
:okHome

rem Get standard environment variables
call "%CATALINA_HOME%\bin\rmb.bat"
if exist "%CATALINA_HOME%\bin\setenv.bat" call "%CATALINA_HOME%\bin\setenv.bat"

rem Get standard Java environment variables
if exist "%CATALINA_HOME%\bin\setclasspath.bat" goto okSetclasspath
echo Cannot find %CATALINA_HOME%\bin\setclasspath.bat
echo This file is needed to run this program
goto end
:okSetclasspath
set BASEDIR=%CATALINA_HOME%
call "%CATALINA_HOME%\bin\setclasspath.bat" %1
call "%CATALINA_HOME%\bin\rmb.bat"
if errorlevel 1 goto end

rem Add on extra jar files to CLASSPATH
if "%JSSE_HOME%" == "" goto noJsse
set CLASSPATH=%CLASSPATH%;%JSSE_HOME%\lib\jcert.jar;%JSSE_
HOME%\lib\jnet.jar;%JSSE_HOME%\lib\jsse.jar
:noJsse
set CLASSPATH=%CLASSPATH%;%CATALINA_HOME%\bin\bootstrap.jar

if not "%CATALINA_BASE%" == "" goto gotBase
set CATALINA_BASE=%CATALINA_HOME%
:gotBase

if not "%CATALINA_TMPDIR%" == "" goto gotTmpdir
set CATALINA_TMPDIR=%CATALINA_BASE%\temp
:gotTmpdir

if not exist "%CATALINA_BASE%\conf\logging.properties" goto noJuli
set JAVA_OPTS=%JAVA_OPTS%
-Djava.util.logging.manager=org.apache.juli.ClassLoaderLogManager
-Djava.util.logging.config.file="%CATALINA_BASE%\conf\logging.properties"
:noJuli

rem ----- Execute The Requested Command ---------------------------------------

echo Using CATALINA_BASE:   %CATALINA_BASE%
echo Using CATALINA_HOME:   %CATALINA_HOME%
echo Using CATALINA_TMPDIR: %CATALINA_TMPDIR%
if ""%1"" == ""debug"" goto use_jdk
echo Using JRE_HOME:        %JRE_HOME%
goto java_dir_displayed
:use_jdk
echo Using JAVA_HOME:       %JAVA_HOME%
:java_dir_displayed
```

```
set _EXECJAVA=%_RUNJAVA%
set MAINCLASS=org.apache.catalina.startup.Bootstrap
set ACTION=start
set SECURITY_POLICY_FILE=
set DEBUG_OPTS=
set JPDA=

if not ""%1"" == ""jpda"" goto noJpda
set JPDA=jpda
if not "%JPDA_TRANSPORT%" == "" goto gotJpdaTransport
set JPDA_TRANSPORT=dt_shmem
:gotJpdaTransport
if not "%JPDA_ADDRESS%" == "" goto gotJpdaAddress
set JPDA_ADDRESS=jdbconn
:gotJpdaAddress
if not "%JPDA_SUSPEND%" == "" goto gotJpdaSuspend
set JPDA_SUSPEND=n
:gotJpdaSuspend
if not "%JPDA_OPTS%" == "" goto gotJpdaOpts
set JPDA_OPTS=-Xdebug -Xrunjdwp:transport=%JPDA_TRANSPORT%,address=%JPDA_
ADDRESS%,server=y,suspend=%JPDA_SUSPEND%
:gotJpdaOpts
shift
:noJpda

if ""%1"" == ""debug"" goto doDebug
if ""%1"" == ""run"" goto doRun
if ""%1"" == ""start"" goto doStart
if ""%1"" == ""stop"" goto doStop
if ""%1"" == ""version"" goto doVersion

echo Usage:  catalina ( commands ... )
echo commands:
echo   debug             Start Catalina in a debugger
echo   debug -security   Debug Catalina with a security manager
echo   jpda start        Start Catalina under JPDA debugger
echo   run               Start Catalina in the current window
echo   run -security     Start in the current window with security manager
echo   start             Start Catalina in a separate window
echo   start -security   Start in a separate window with security manager
echo   stop              Stop Catalina
echo   version           What version of tomcat are you running?
goto end

:doDebug
shift
set _EXECJAVA=%_RUNJDB%
set DEBUG_OPTS=-sourcepath "%CATALINA_HOME%\..\..\java"
if not ""%1"" == ""-security"" goto execCmd
shift
echo Using Security Manager
set SECURITY_POLICY_FILE=%CATALINA_BASE%\conf\catalina.policy
goto execCmd

:doRun
shift
if not ""%1"" == ""-security"" goto execCmd
shift
echo Using Security Manager
```

```
set SECURITY_POLICY_FILE=%CATALINA_BASE%\conf\catalina.policy
goto execCmd

:doStart
shift
if not "%OS%" == "Windows_NT" goto noTitle
set _EXECJAVA=start "Tomcat" %_RUNJAVA%
goto gotTitle
:noTitle
set _EXECJAVA=start %_RUNJAVA%
:gotTitle
if not ""%1"" == ""-security"" goto execCmd
shift
echo Using Security Manager
set SECURITY_POLICY_FILE=%CATALINA_BASE%\conf\catalina.policy
goto execCmd

:doStop
shift
set ACTION=stop
goto execCmd

:doVersion
%_EXECJAVA% -classpath "%CATALINA_HOME%\lib\catalina.jar"
org.apache.catalina.util.ServerInfo
goto end


:execCmd
rem Get remaining unshifted command line arguments and save them in the
set CMD_LINE_ARGS=
:setArgs
if ""%1""==""" goto doneSetArgs
set CMD_LINE_ARGS=%CMD_LINE_ARGS% %1
shift
goto setArgs
:doneSetArgs

rem Execute Java with the applicable properties
if not "%JPDA%" == "" goto doJpda
if not "%SECURITY_POLICY_FILE%" == "" goto doSecurity
%_EXECJAVA% %JAVA_OPTS% %CATALINA_OPTS% %DEBUG_OPTS%
-Djava.endorsed.dirs="%JAVA_ENDORSED_DIRS%" -classpath "%CLASSPATH%"
-Dcatalina.base="%CATALINA_BASE%" -Dcatalina.home="%CATALINA_HOME%"
-Djava.io.tmpdir="%CATALINA_TMPDIR%" %MAINCLASS% %CMD_LINE_ARGS% %ACTION%
goto end
:doSecurity
%_EXECJAVA% %JAVA_OPTS% %CATALINA_OPTS% %DEBUG_OPTS%
-Djava.endorsed.dirs="%JAVA_ENDORSED_DIRS%" -classpath "%CLASSPATH%"
-Djava.security.manager -Djava.security.policy=="%SECURITY_POLICY_FILE%"
-Dcatalina.base="%CATALINA_BASE%" -Dcatalina.home="%CATALINA_HOME%"
-Djava.io.tmpdir="%CATALINA_TMPDIR%" %MAINCLASS% %CMD_LINE_ARGS% %ACTION%
goto end
:doJpda
if not "%SECURITY_POLICY_FILE%" == "" goto doSecurityJpda
%_EXECJAVA% %JAVA_OPTS% %CATALINA_OPTS% %JPDA_OPTS% %DEBUG_OPTS%
-Djava.endorsed.dirs="%JAVA_ENDORSED_DIRS%" -classpath "%CLASSPATH%"
-Dcatalina.base="%CATALINA_BASE%" -Dcatalina.home="%CATALINA_HOME%"
-Djava.io.tmpdir="%CATALINA_TMPDIR%" %MAINCLASS% %CMD_LINE_ARGS% %ACTION%
goto end
```

```
:doSecurityJpda
%_EXECJAVA% %JAVA_OPTS% %CATALINA_OPTS% %JPDA_OPTS% %DEBUG_OPTS%
-Djava.endorsed.dirs="%JAVA_ENDORSED_DIRS%" -classpath "%CLASSPATH%"
-Djava.security.manager -Djava.security.policy=="%SECURITY_POLICY_FILE%"
-Dcatalina.ba
----------------------------------------------------------------------------------------------------
```

6. Copy the **rmb.bat** and **catalina.bat** to the following location:

   \R_2.3\tomcat-6.0.14\bin

1.4.3 Downloading Jar File Json-rpc

To download json-rpc jar:

1. Download json-rpc jar from the following url:

   http://mirrors.ibiblio.org/pub/mirrors/maven/com.metaparadigm/jars/json-rpc-1.0.jar

2. Copy the jar file to the following location:

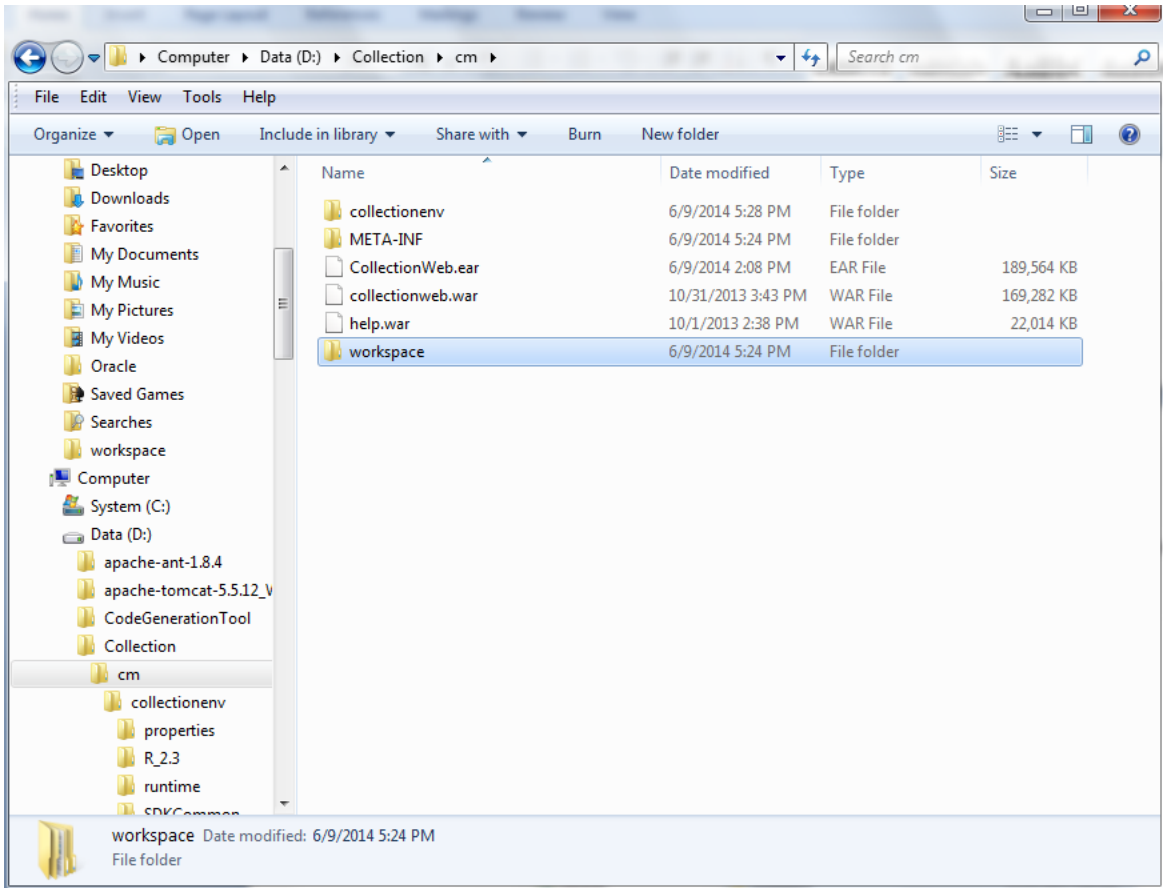
   \SDKCommon\tools

1.4.4 Configuring eclipseProject

To select and configure eclipseProject:

1. Create a new folder named **Workspace** where you have installed the collection environment.

Figure 1–12 Create Workspace Folder

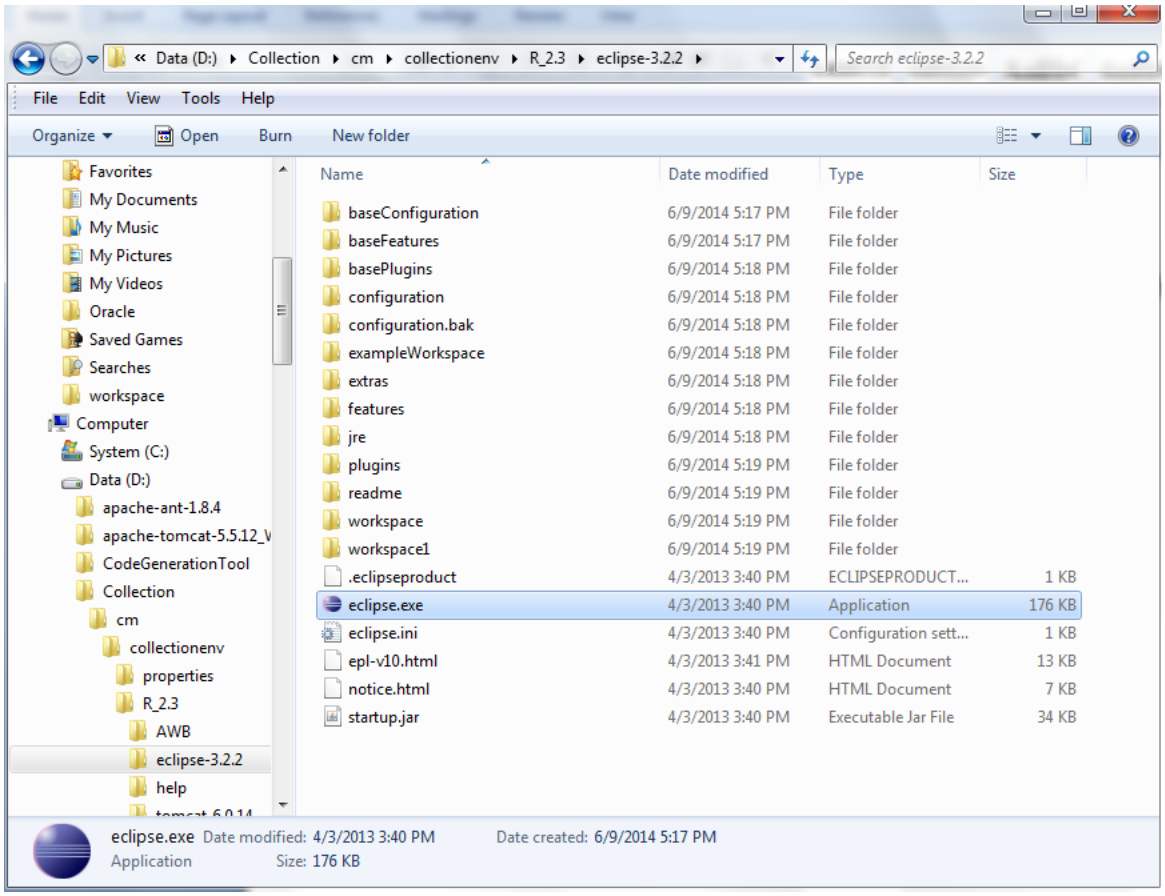


2. Navigate to the following location:

   D:\CollectionSDK\R_2.3\Eclipse

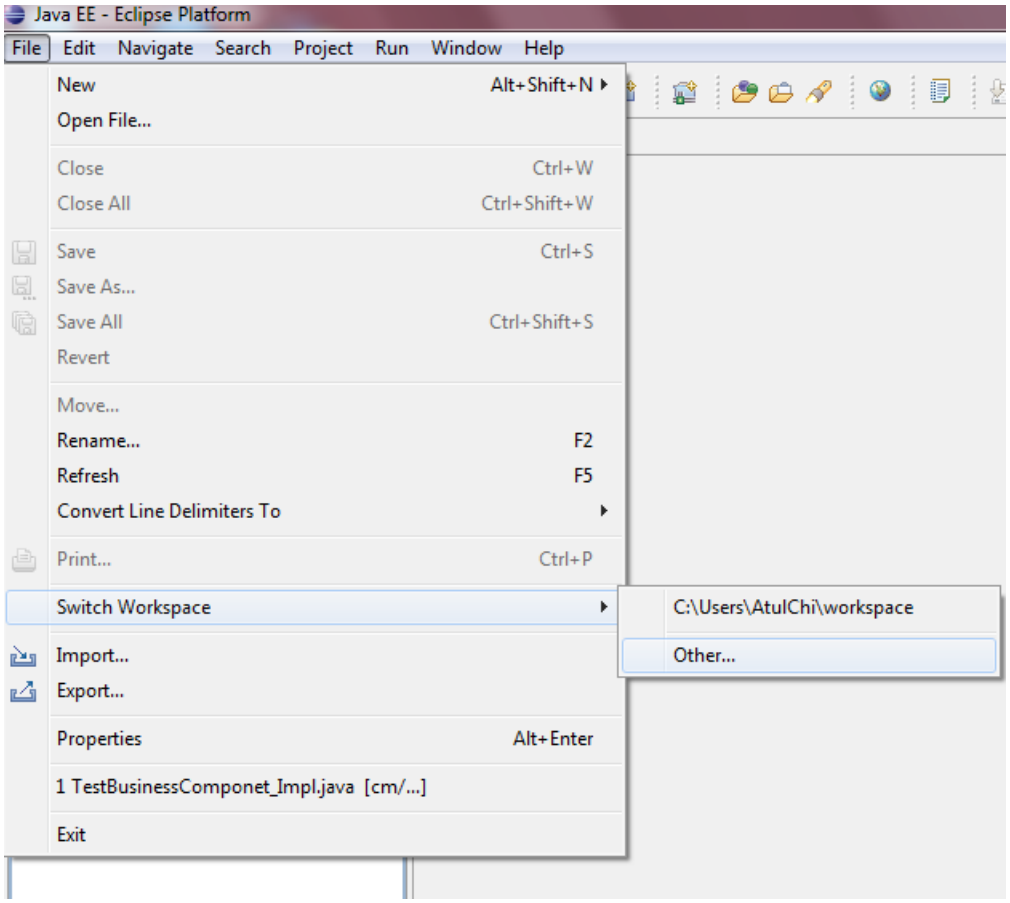
3. Double-click **Eclipse.exe**.

Figure 1–13 Double-click Eclipse.exe



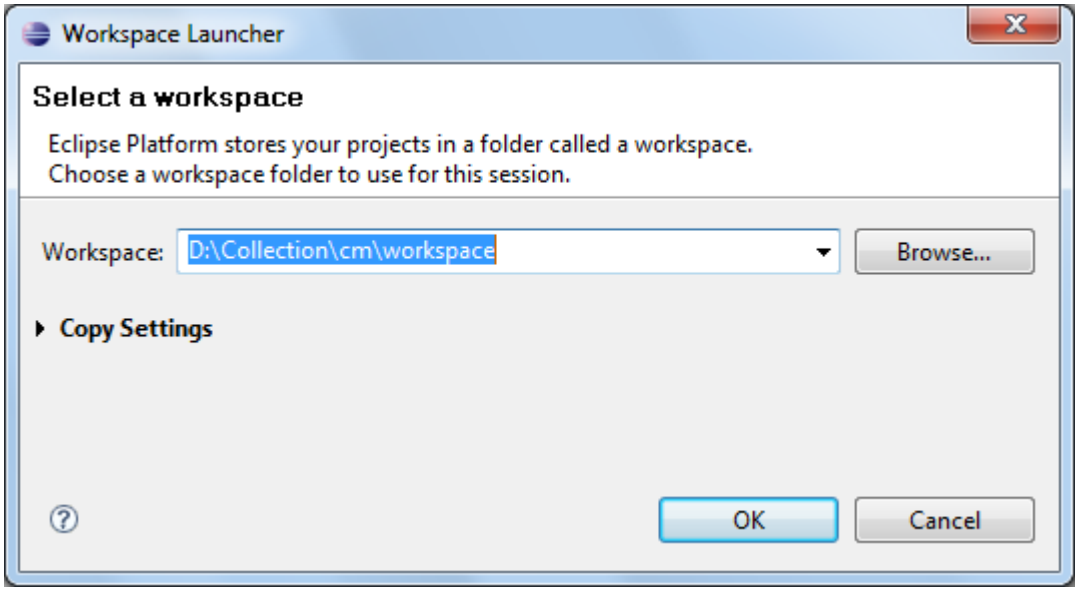
4. Go to Eclipse IDE and click **File --> Switch Workspace --> Other**.

Figure 1–14 Eclipse IDE



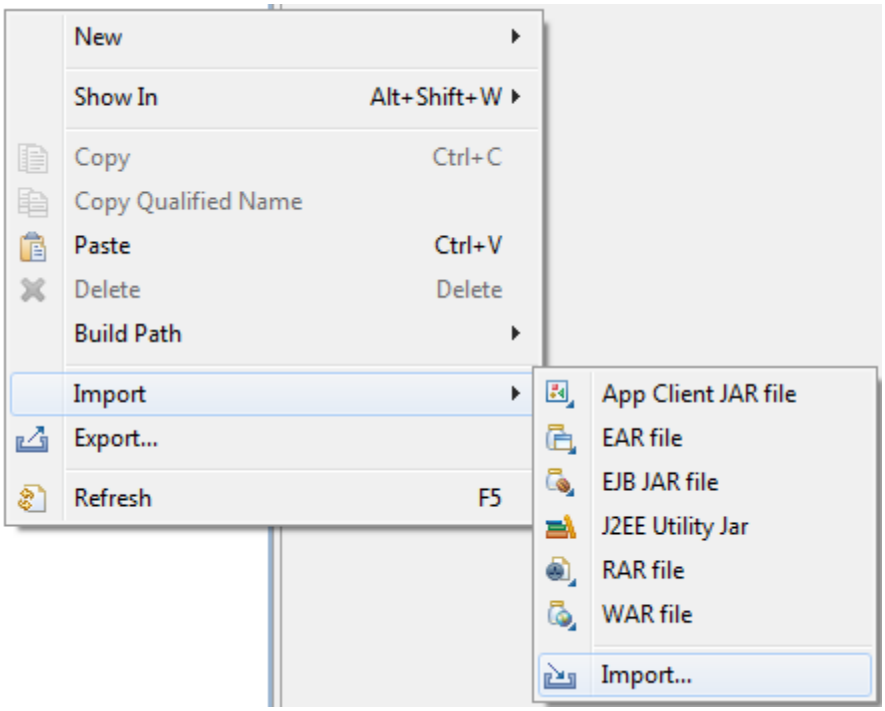
5. In the Workspace Launcher dialog box, click **Browse**, and locate the path where you have created workspace folder.

Figure 1–15 Workspace Launcher



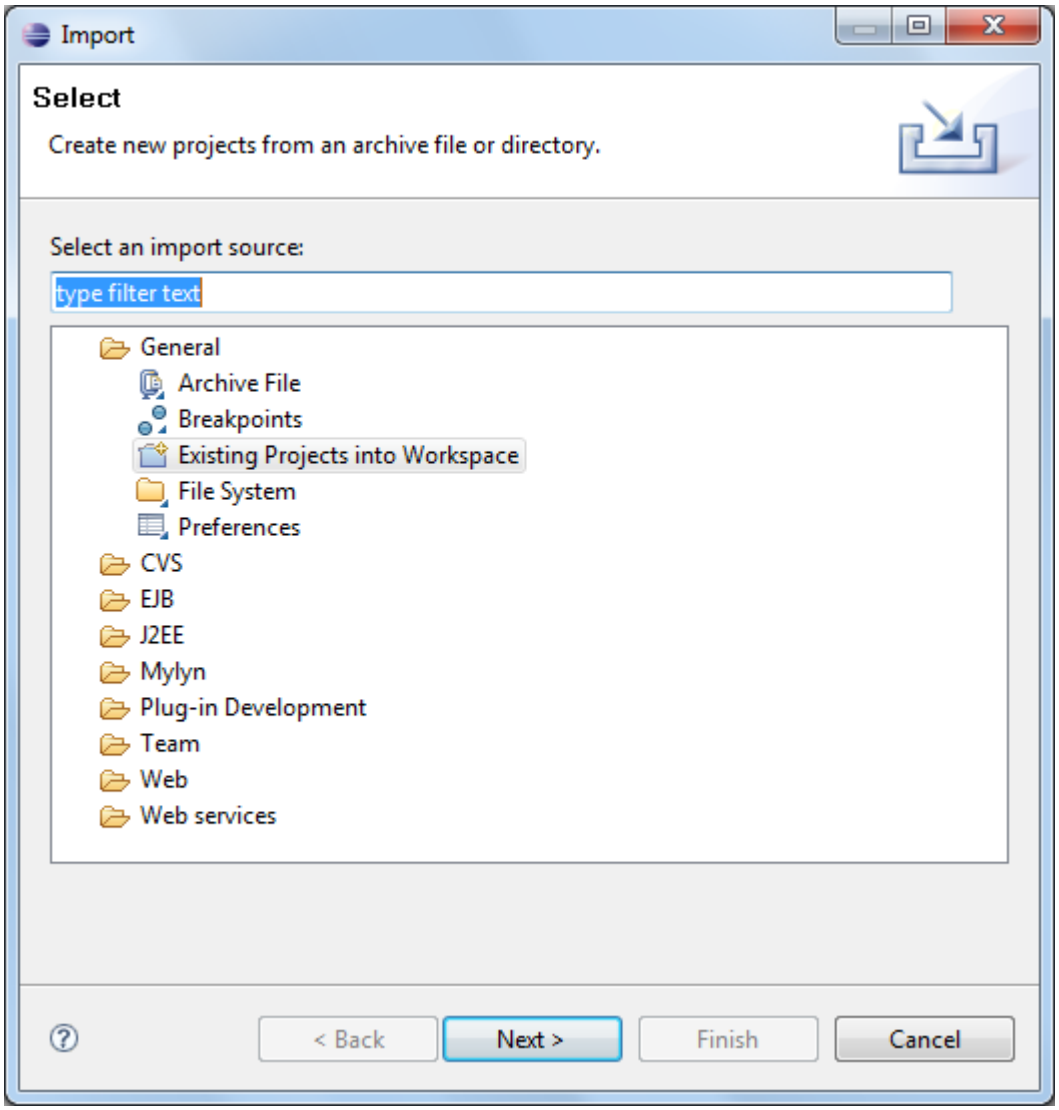
6. Click **OK.**
7. Right-click the Project Explorer, and select **Import --> Import.**

Figure 1–16 Project Explorer - Import



8. In the Import dialog box, select the **Existing Projects into Workspace** option.

Figure 1–17 Select Existing Projects into Workspace

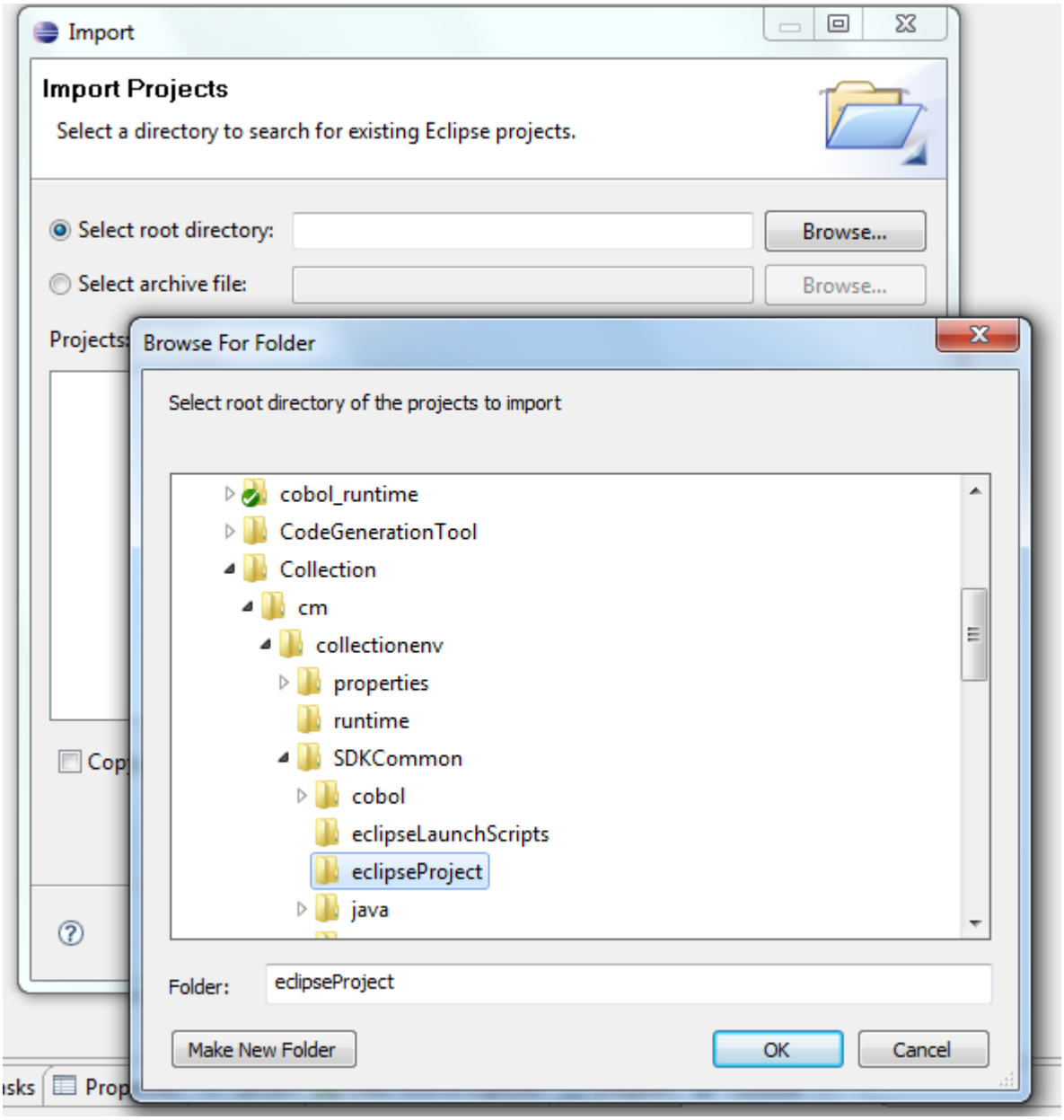


9. Click **Next.**
10. In the Import dialog box, select **Select root directory** option, and click **Browse.**
11. In the **Browse For Folder**, select **eclipseProject**.

    You can locate the eclipseProject at:

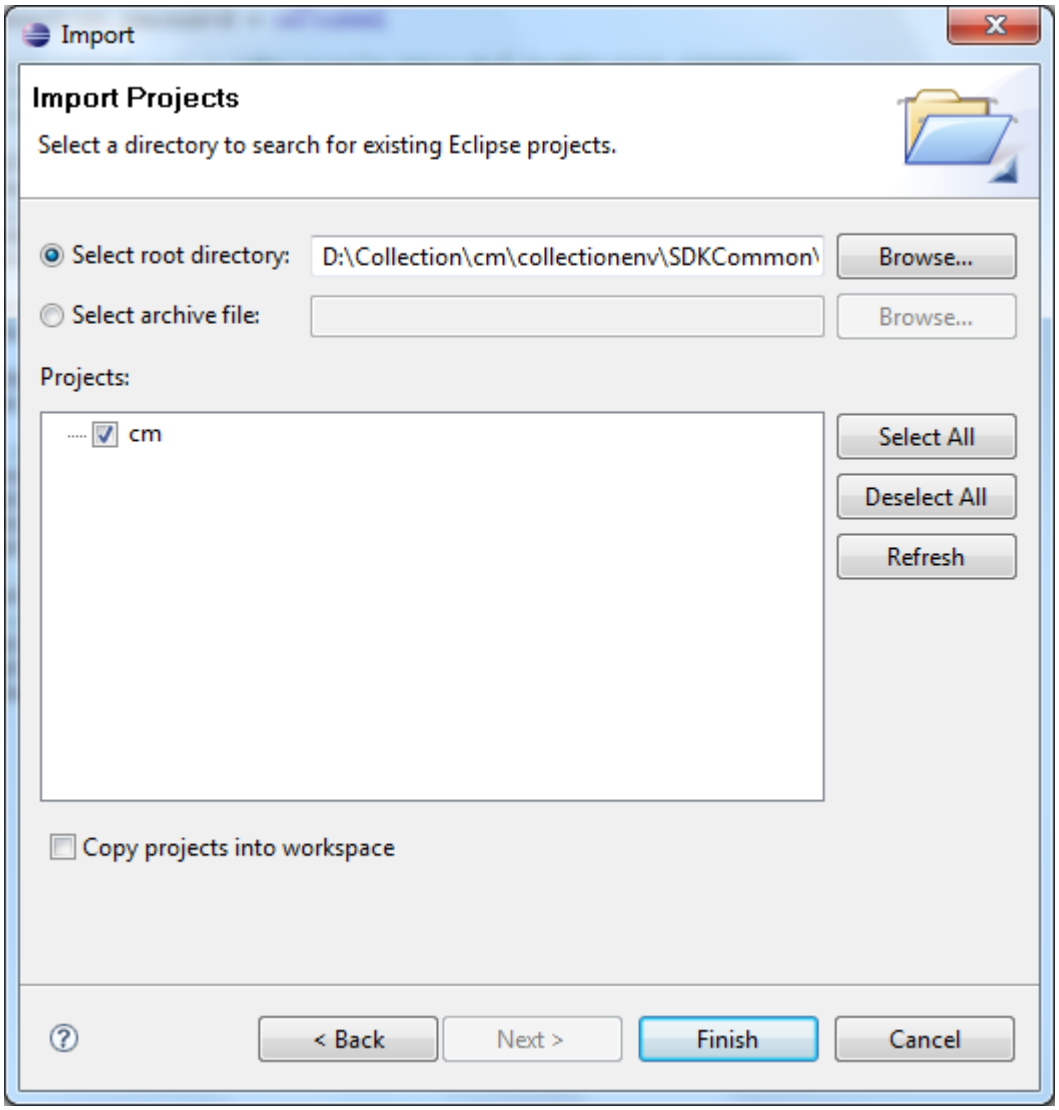
    {Collection Environment Directory}\SDKCommon\eclipseProject

Figure 1–18 Browse and Locate eclipseProject



12. Click **OK.**
13. In the Import dialog box, click **Finish.**

Figure 1–19 Import Projects - Finish

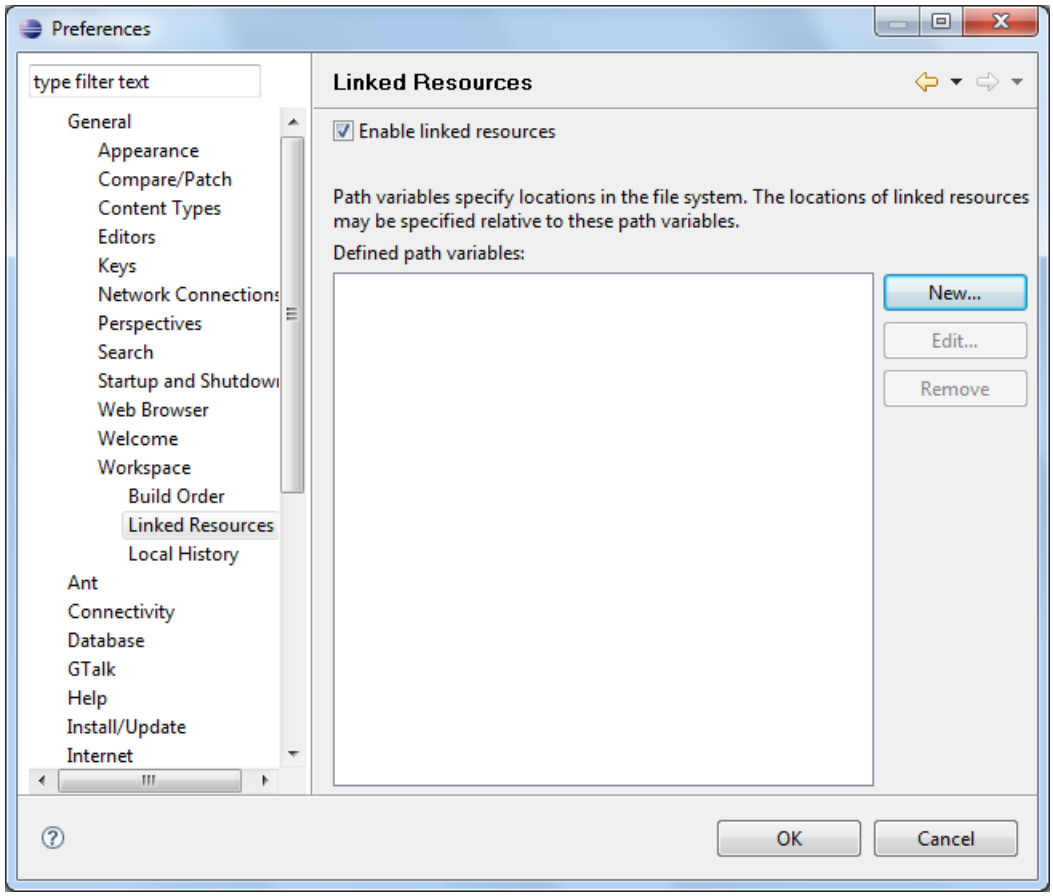


1.4.5 Creating Linked Resource

To create linked resource:

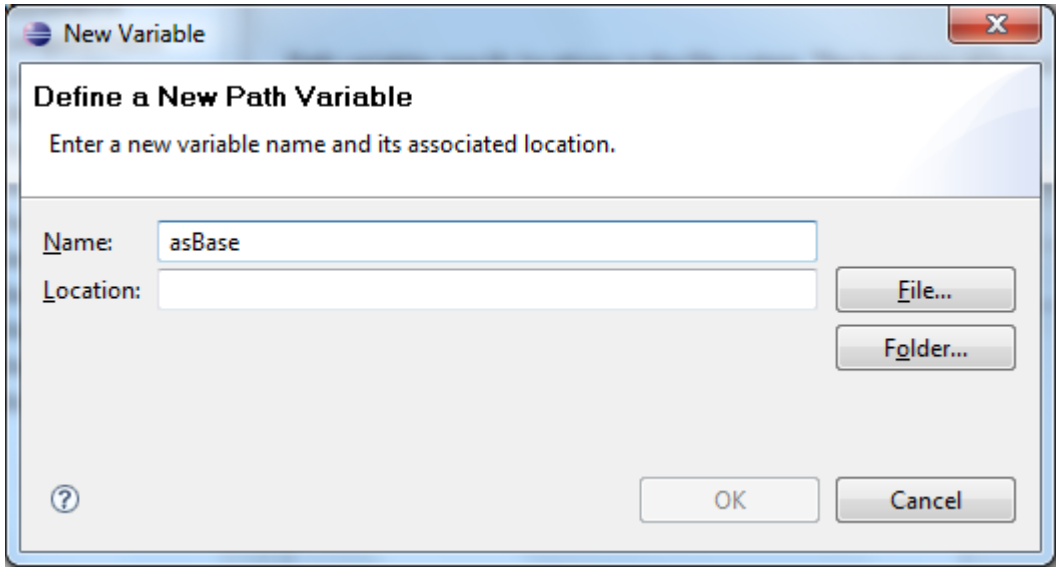
1. Navigate to **Window --> Preferences.**
2. In the **Preferences** dialog box, go to **General --> Workspace --> Linked Resource.**

Figure 1–20 Linked Resources



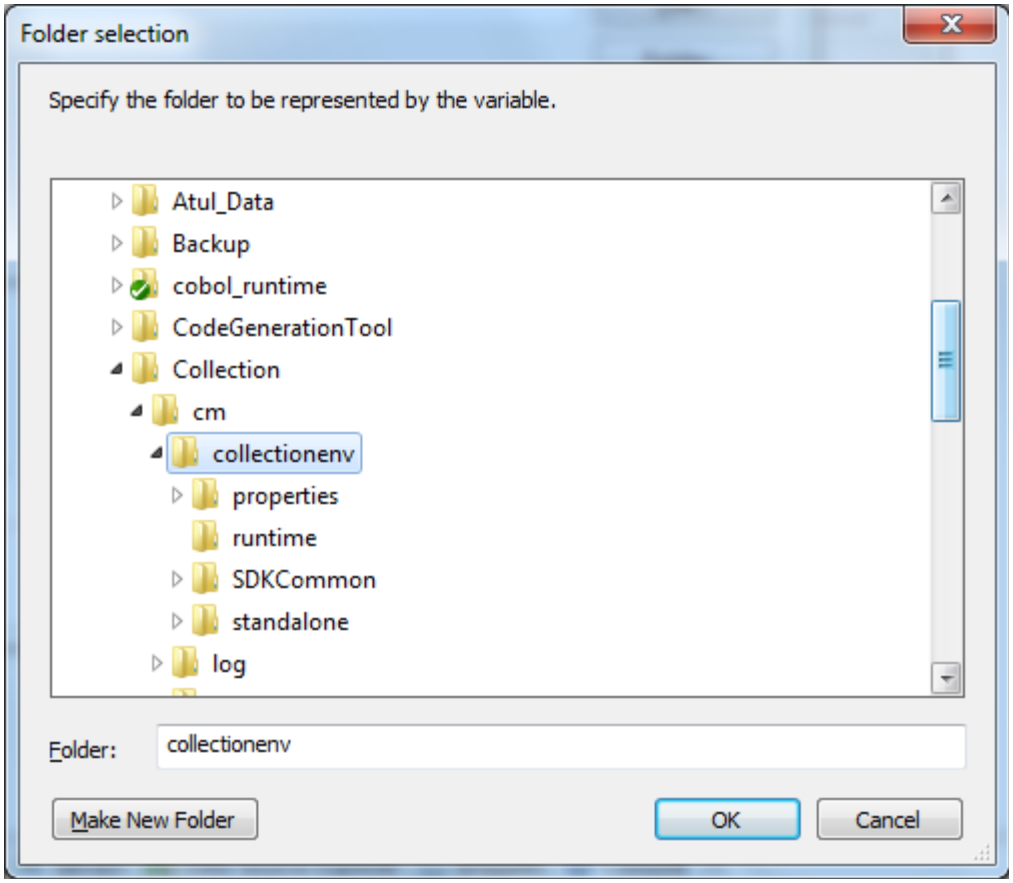
3. Click **New.**
4. In the **New Variable** dialog box, type *asBase* in the **Name** field.

Figure 1–21 New Variable asBase



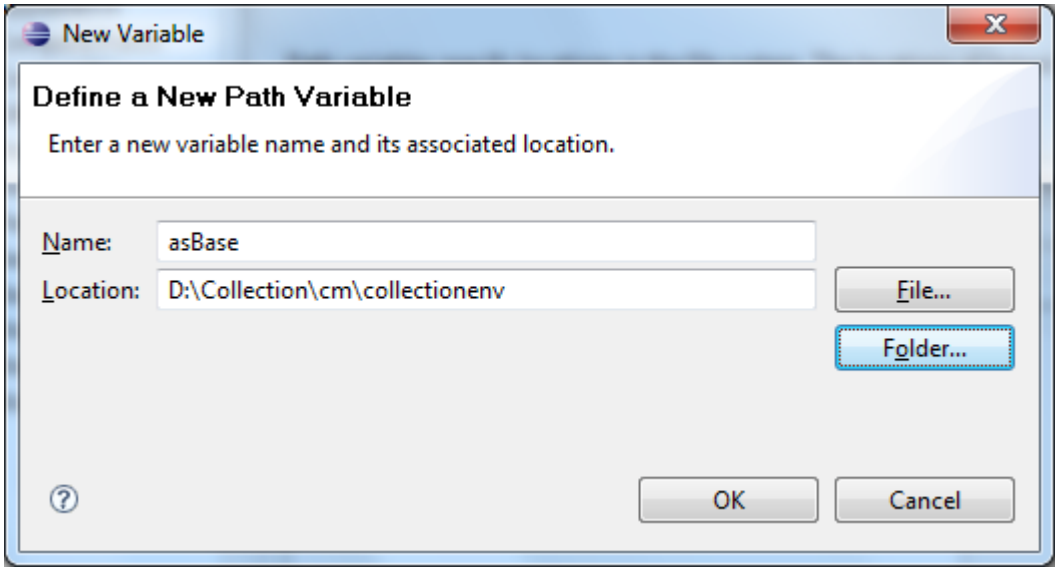
5. To specify location, click **Folder** and select the location where you have installed the collection environment.

Figure 1–22 Select Folder



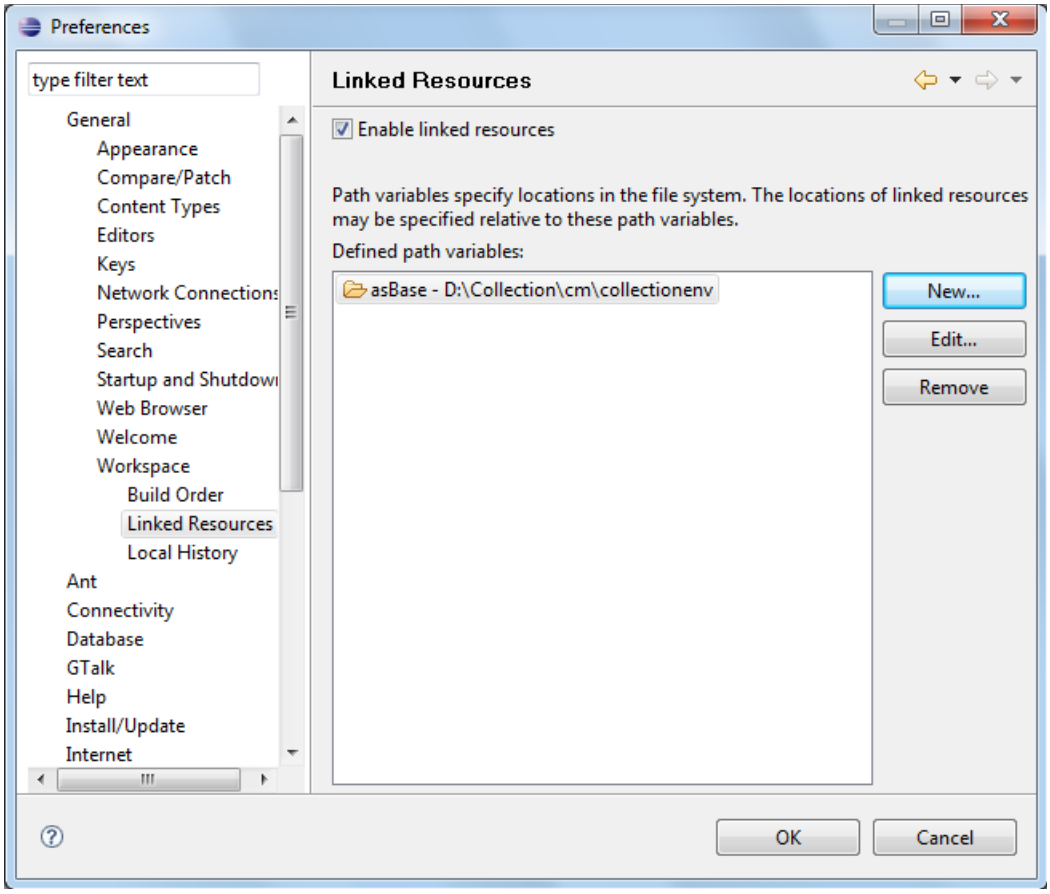
6. Click **OK.** The new variable name and location is set.

Figure 1–23 New Variable Name and Location



7. Click **OK.**

Figure 1–24 Linked Resources - Path Variables



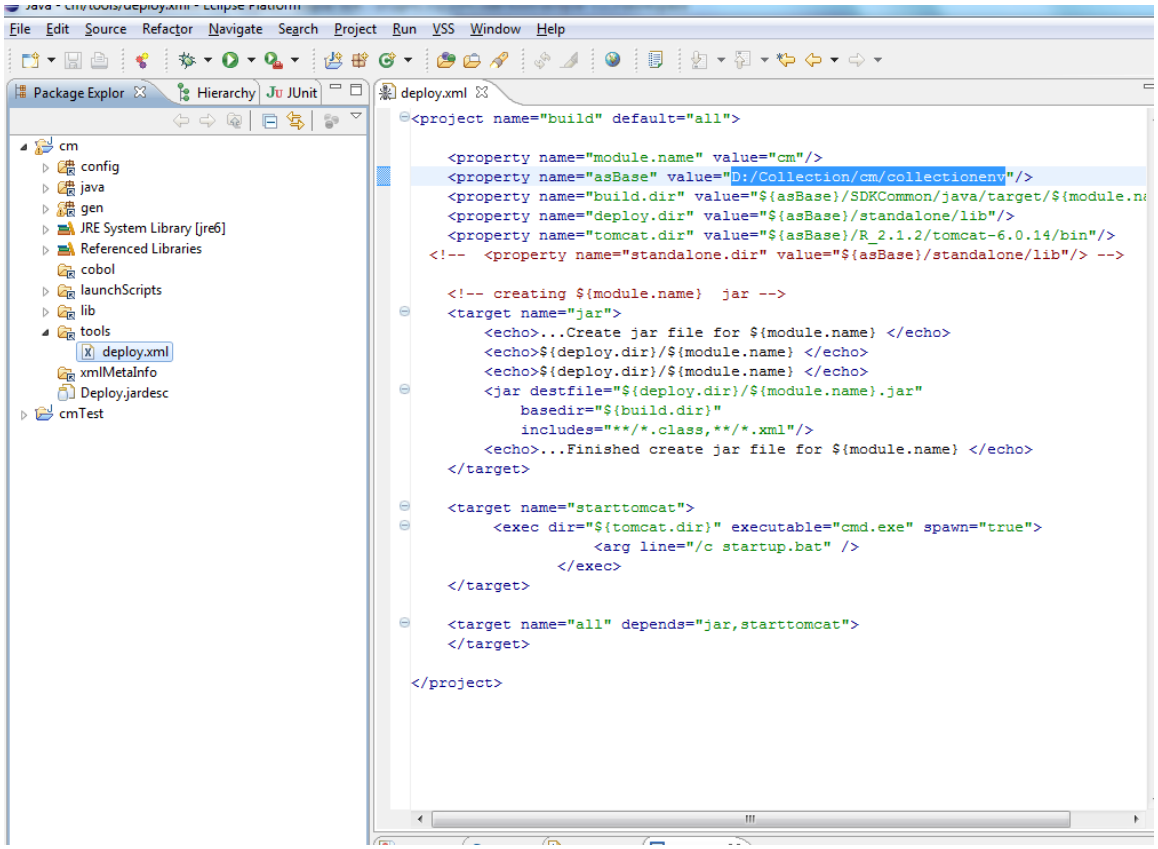
8. Click **OK.**
9. Refresh project.

1.4.6 Updating deploy.xml, rmb.bat and server.xml

This section provides information on the various file updates required.

1. **Change deploy.xml.**
   a. Navigate to project **cm --> tools --> deploy.xml** and open it.
   b. Change the **asBase** variable to **{Collection Environment Directory}.**

Figure 1–25 deploy.xml



2. **Update rmb.bat for Environment variables.**
   a. Navigate to {Collection Environment Directory}\R_2.3\tomcat-6.0.14\bin.
   b. Open the file rmb.bat and set the following variables:

      SPLEBASE - {Collection Environment Directory path}

      MFDIR - {Micro focus installation directory}

      JAVA_HOME -{Java Home Directory path}

Figure 1–26 rmb.bat

rmb.bat

```
set SPLEBASE=D:/Test/collectionenv
set MFDIR=D:/Microfocus_5.1/Bin
set JAVA_HOME=C:/Program Files/Java/jdk1.6.0_31

set CONFIGDIR=properties/web
set PATH=%SPLEBASE%/runtime;%MFDIR%;%PATH%;
set CLASSPATH=%SPLEBASE%/properties/web;%CLASSPATH%;
set CATALINA_HOME=%SPLEBASE%/R_2.3/tomcat-6.0.14
set CATALINA_BASE=%SPLEBASE%/R_2.3/tomcatBase-6.0.14
set JAVA_OPTS=-server
```

3. **Update Server.xml.**
   a. Navigate to the directory where Oracle Banking Platform (OBP) is installed.
   b. Extract collectionweb.ear. The files collectionweb.war and help.war are extracted.
   c. Navigate to {Collection Environment Directory}\R_2.3\tomcatBase-6.0.14\conf.
   d. Update the path in the **Context** tag where the collectionweb.war and help.war resides.

Figure 1–27 server.xml

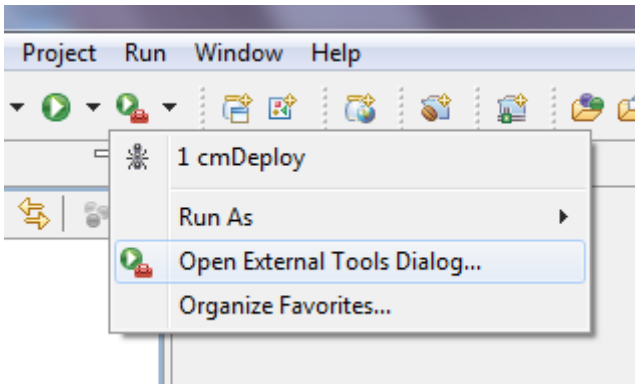
```
<Host name="localhost"  appBase="webapps"
      unpackWARs="true" autoDeploy="true"
      xmlValidation="false" xmlNamespaceAware="false">

  <!-- SingleSignOn valve, share authentication between web applications
       Documentation at: /docs/config/valve.html -->
  <!--
  <Valve className="org.apache.catalina.authenticator.SingleSignOn" />
  -->

  <!-- Access log processes all example.
       Documentation at: /docs/config/valve.html -->
  <!--
  <Valve className="org.apache.catalina.valves.AccessLogValve" directory="logs"
         prefix="localhost_access_log." suffix=".txt" pattern="common" resolveHosts="false"/>
  -->

  <!-- SPL Context -->
  <Context path="/spl" docBase="D:/Collection/cm/collectionweb.war" />
  <Context path="/help" docBase="D:/Collection/cm/help.war" />

</Host>
```

1.4.7 Setting asBase Variable in cmDeploy

To set asBase variable in cmDeloy ant script:

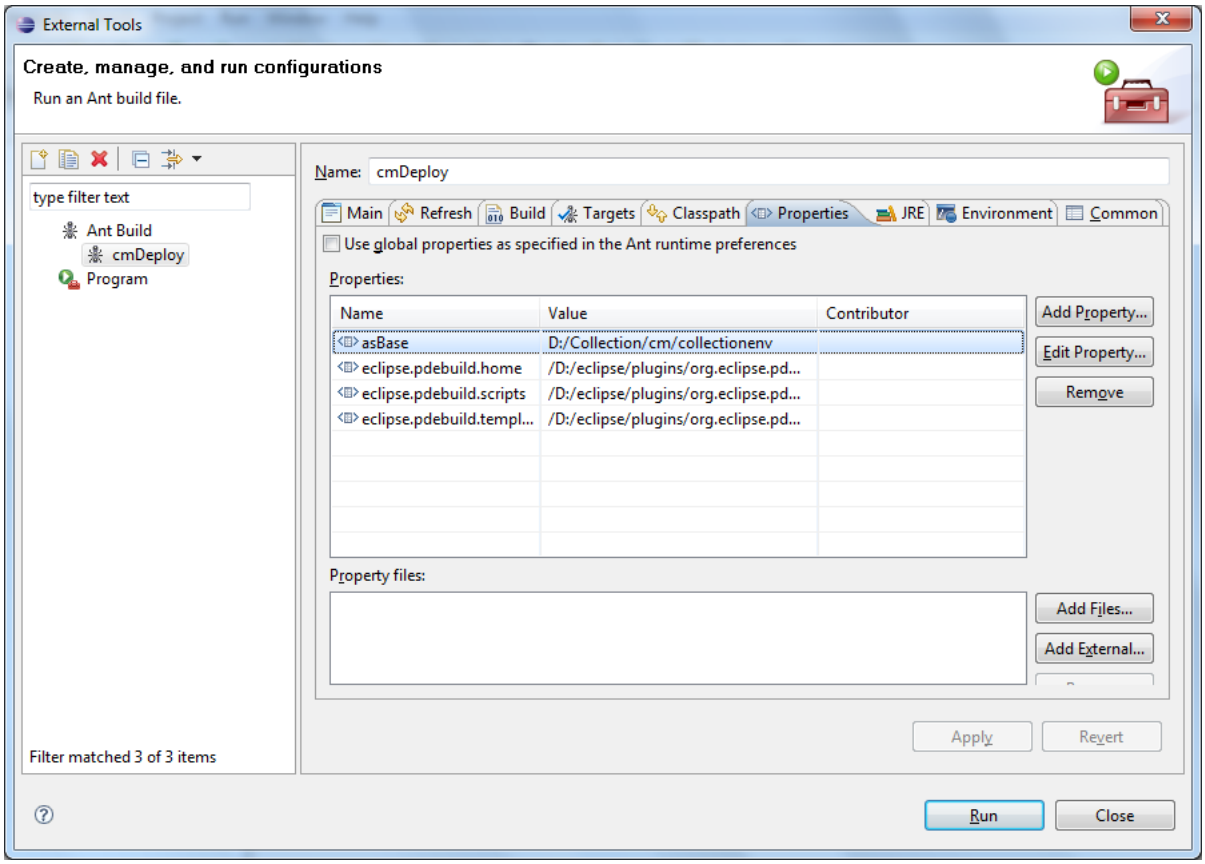
1. Navigate to **Open External Tools Dialog.**

Figure 1–28 Open External Tools Dialog



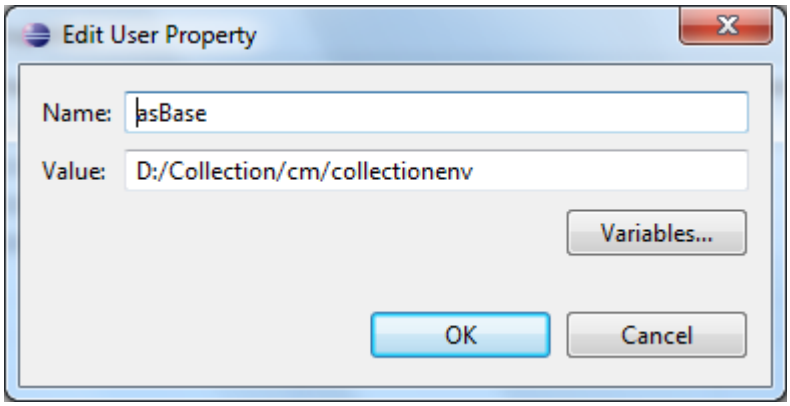
2. In the **External Tools** dialog box, select **cmDeploy** and edit asBase property.

Figure 1–29 External Tools - asBase



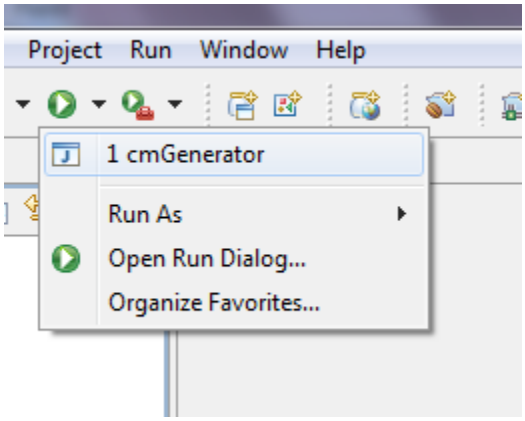
3. Click **Edit Property** and specify the path where you have installed collection environment.

Figure 1–30 asBase - Edit User Property



4. Click **Ok** and apply.
5. Run the artifact generator to ensure that the setup runs correctly.

Figure 1–31 Artifact Generator

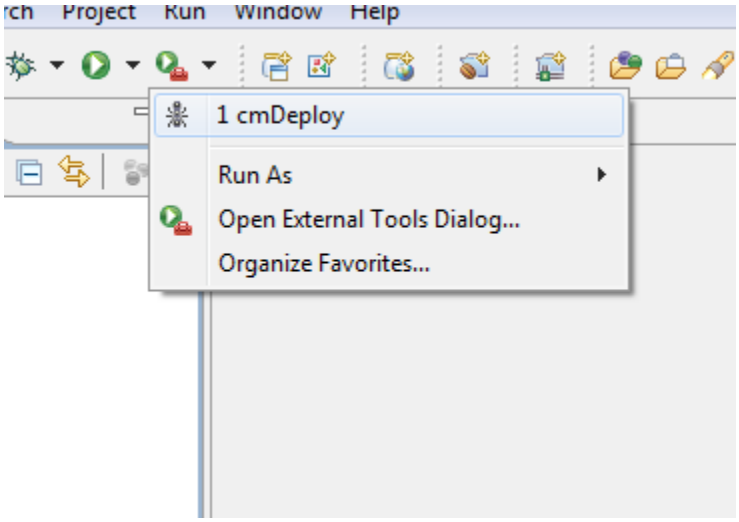


1.4.8 Creating and Deploying cm.jar

To create and deploy cm.jar:

1. Create cm.jar using cmDeploy Ant script.

Figure 1–32 cmDeploy



After you run the ant script, cm.jar is created at following location:

{Your collection environment}\standalone\lib\cm.jar

2. Copy the created jar to the following location:

   In the host server,

   collectionenv\standalone\lib

   In the UI Server,

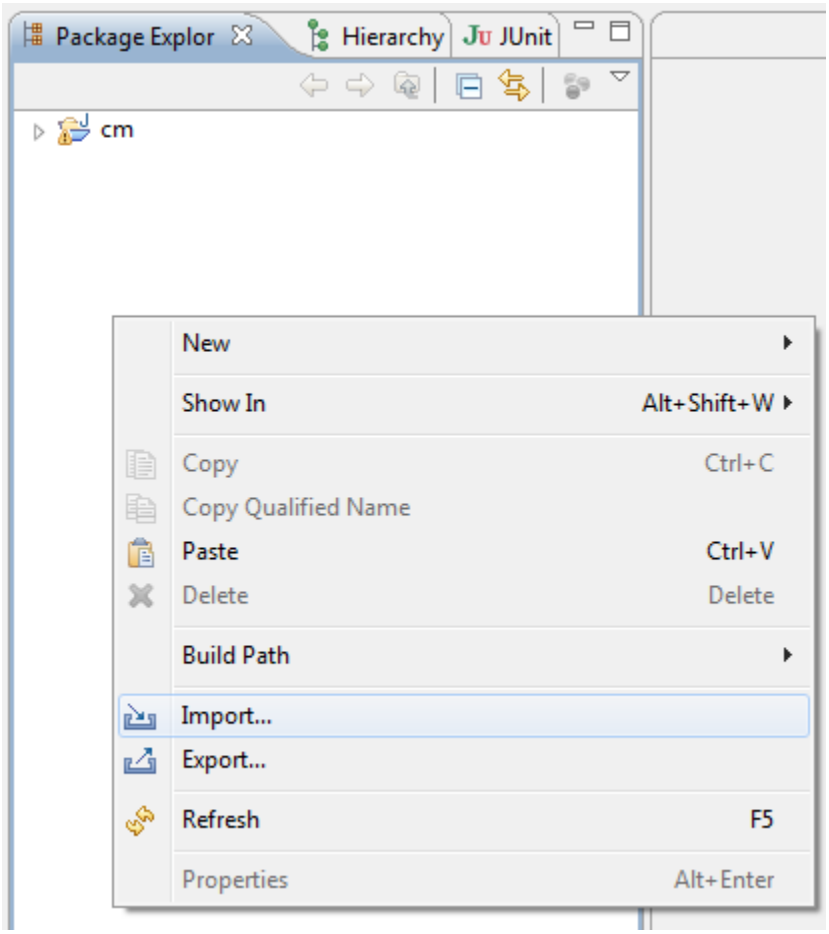
   CollectionWeb.ear --> CollectionWeb.war --> WEB-INF --> lib

1.4.9 Importing Test Project into Customization Setup

To import Test Project into customization setup:

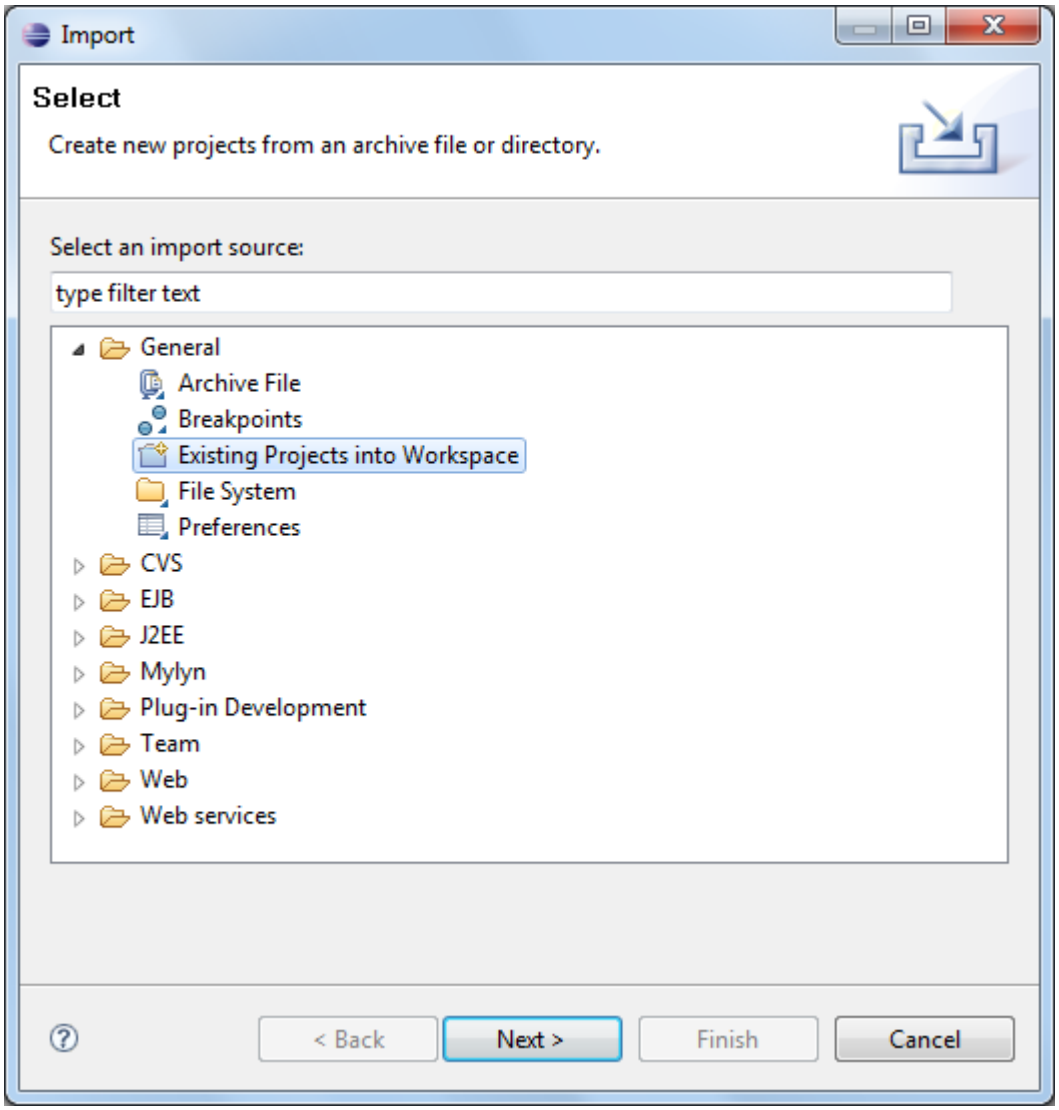
1. Right-click **Project Explorer**, and select **Import.**

Figure 1–33 Import



2. In the **Import** dialog box, select **Existing Projects into Workspace.**

Figure 1–34 Select Existing Projects Into Workspace

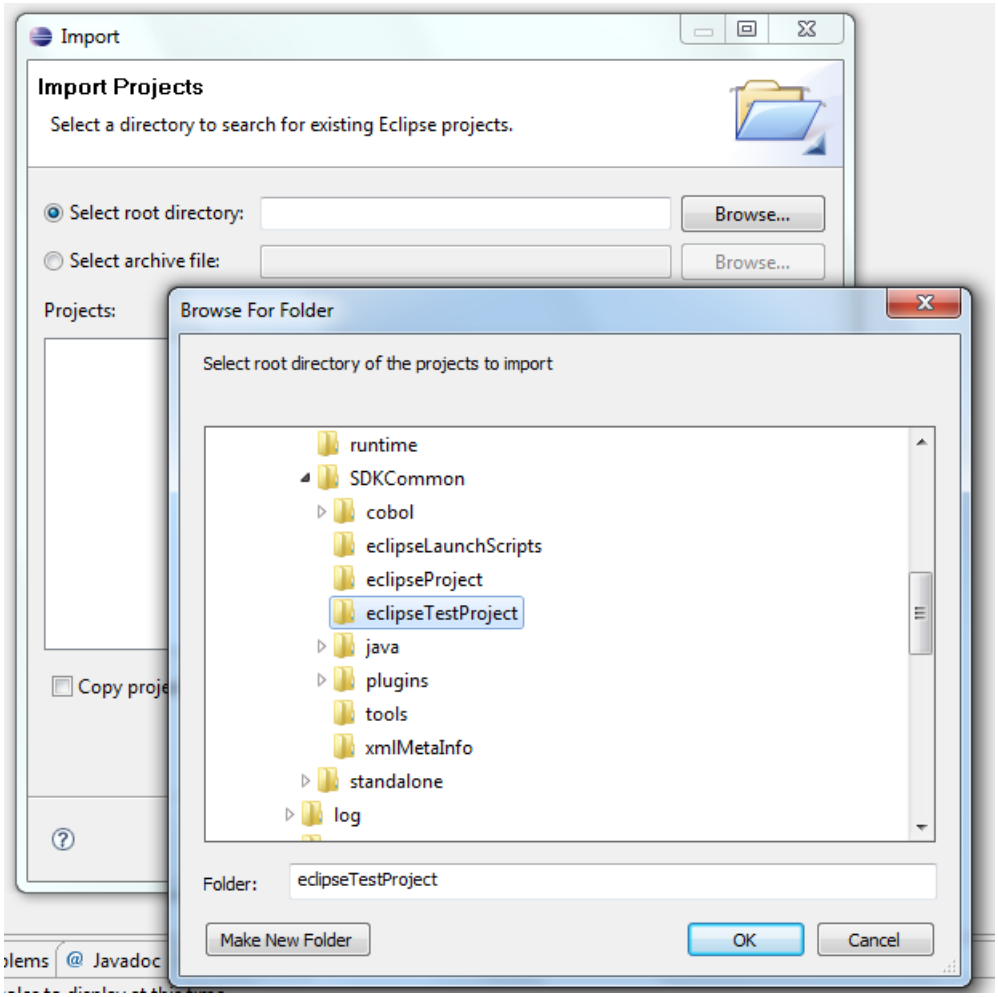


3. Click **Next.**
4. In the **Browse For Folder**, select eclipseTestProject.

   You can locate the eclipseTestproject at:

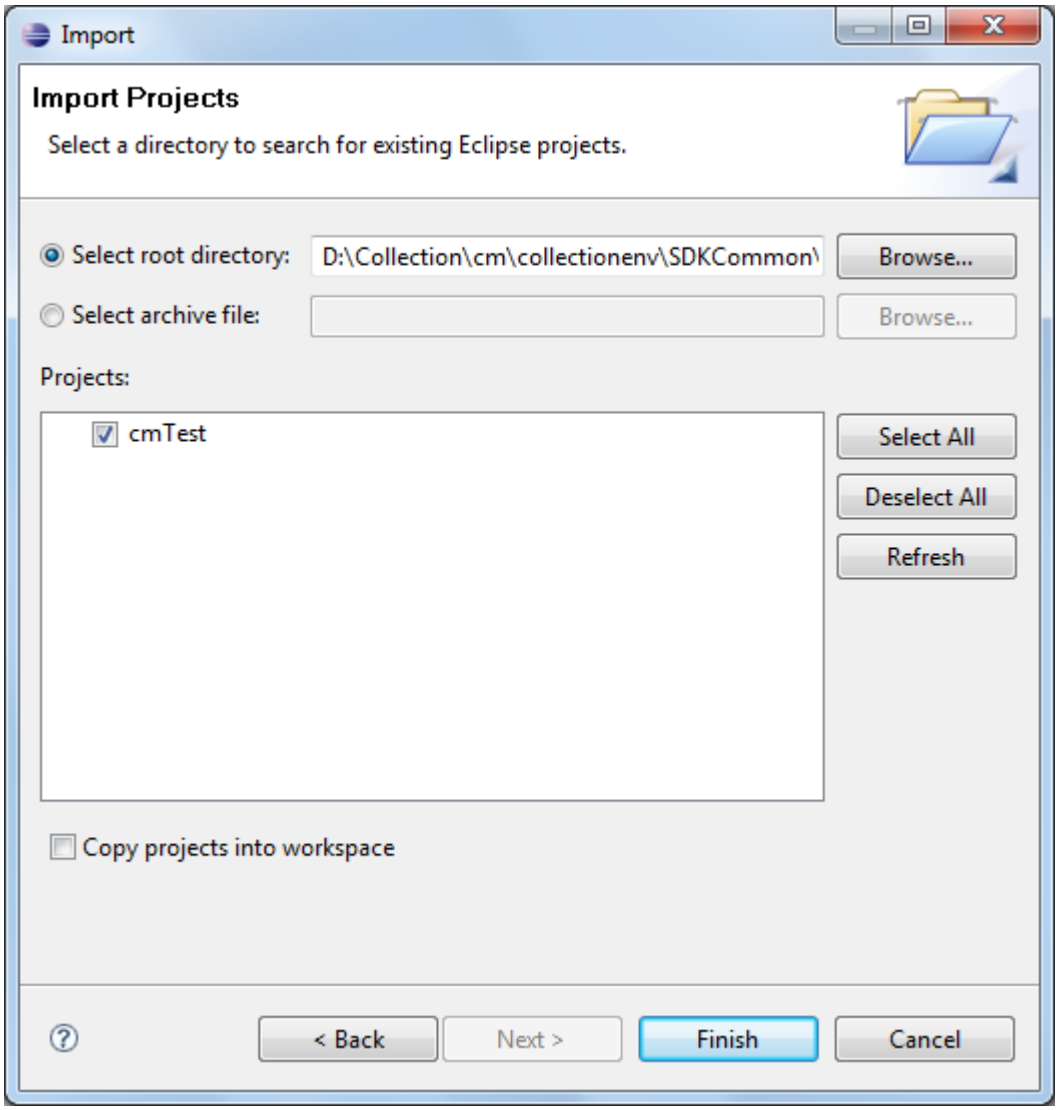
   {Collection Environment Directory}\SDKCommon\eclipseTestProject

Figure 1–35 Select eclipseTestProject



5. In the **Import Projects** dialog box, click **Finish.**

Figure 1–36 Import Projects



1.4.10 Troubleshooting JUnit

During execution of JUnit following possible error scenarios are encountered:

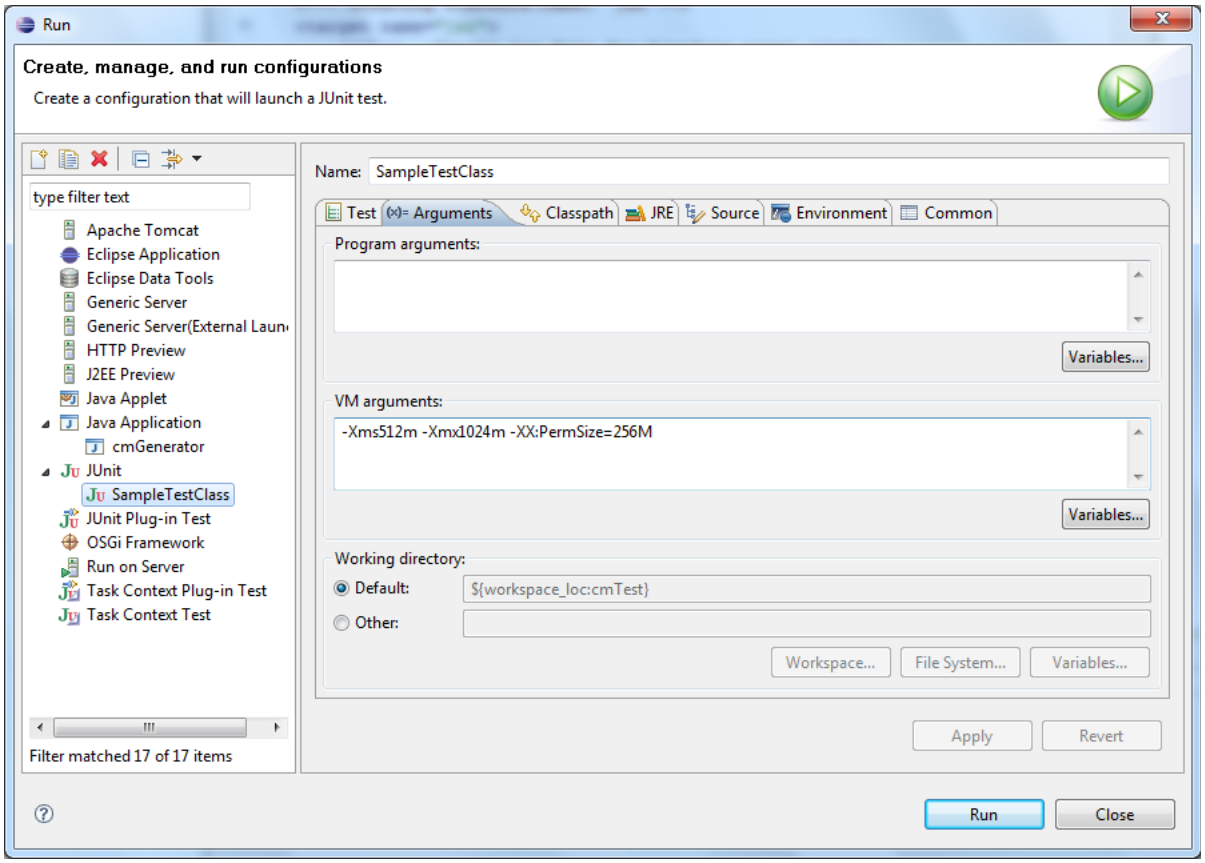
- Out of memory issue
- Cobol runtime path missing

To avoid these scenarios, the following settings need to be performed:

Out of Memory Issue

To address the 'Out of memory' issue, set the VM arguments to **-Xms512m -Xmx1024m -XX:PermSize=256M**.

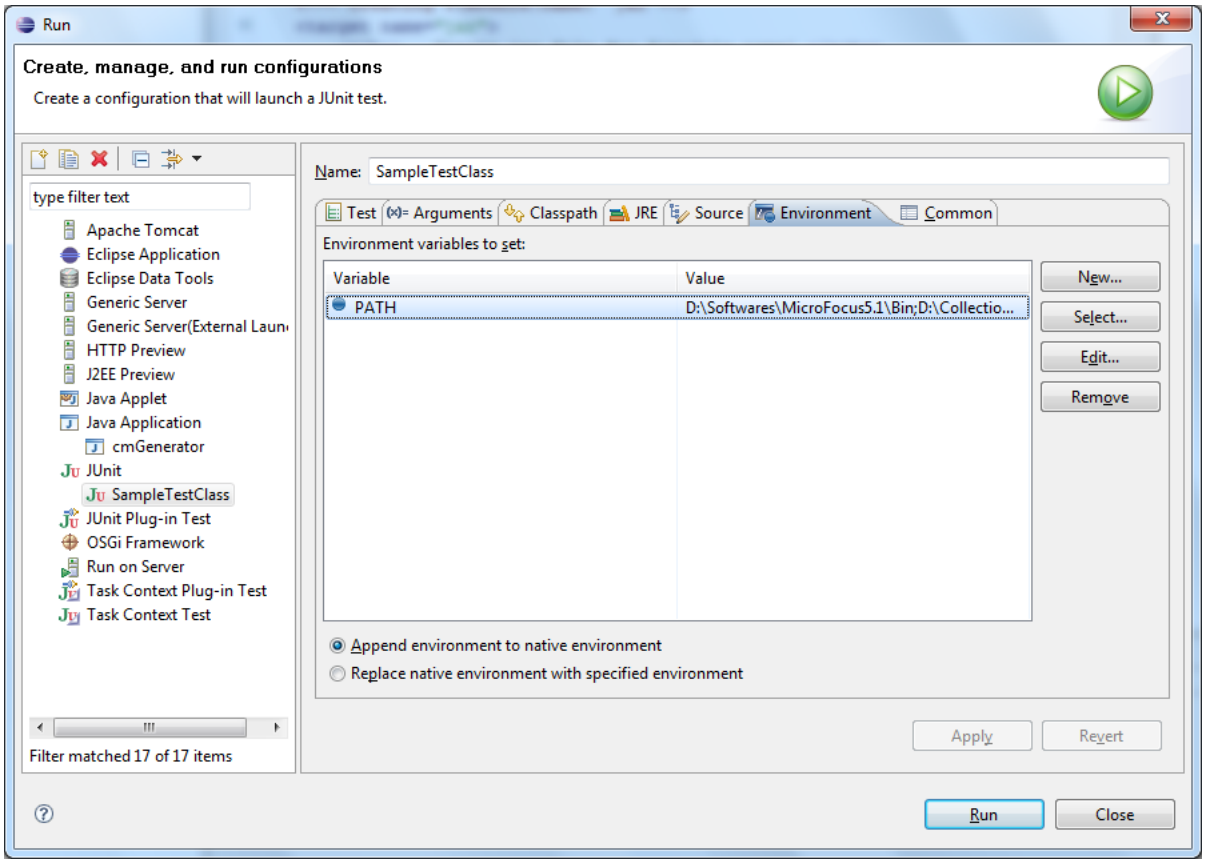
Figure 1–37 VM Arguments



Cobol Runtime Path Missing

For COBOL runtime directory path, set PATH environment variable.

Figure 1–38 Cobol Environment Variable - PATH



Provide the following values in the PATH variable:

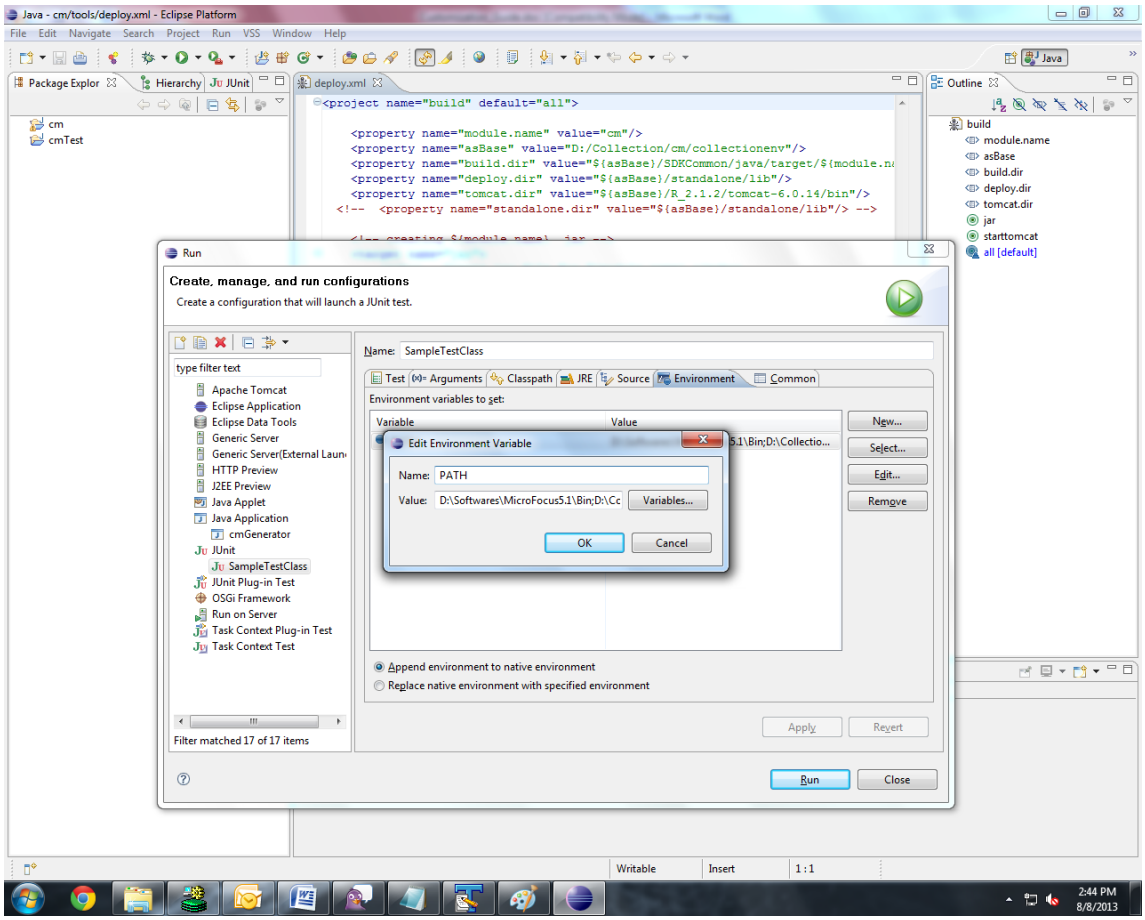
Micro focus installation directory

Example: D:\Softwares\MicroFocus5.1\Bin\WIN64;

COBOL runtime directory path

Example: D:\Collection\cm\collectionenv\runtime;

Figure 1–39 Cobol Environment Variable - Enter Values



Note: For running JUnit, ensure that you are using 64 bit JDK.