Developing OTDs for Oracle® Java CAPS Web Server Adapters

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◆ ◆ ◆ CHAPTER 1

Developing OTDs for Web Server Adapters

The following section provides instructions on how to develop OTDs for Web Server adapters.

- "Creating a Web Server OTD" on page 5

Creating a Web Server OTD

One important component of the OTD Wizard allows you to create an Object Type Definition (OTD) from EJB class files for web server adapters.

Java classes provided in the OTD Wizard can contain APIs created using the standard JDK 1.6.x. Consult the JDK Javadoc for the latest API documentation for specific restrictions imposed by the J2EE specification.

Caution – JNI methods and inner classes are not supported. If the home or remote interface class or their dependent classes contain recursive references, support for the corresponding EJB methods will be limited.

Perform the following tasks to create a web server OTD using the OTD Wizard:

- "Select the Wizard Type" on page 6
- "Specify the OTD Name" on page 7
- "Select the Code Base" on page 7
- "Select Home and Remote Interfaces" on page 9
- "Select Method Arguments" on page 10
- "Review Selections" on page 11
- "Generate the OTD" on page 12

The images in the following procedure are based on a WebLogic OTD Wizard. This might vary from what you see on your screen if you are creating a Sun Java System Application Server OTD.

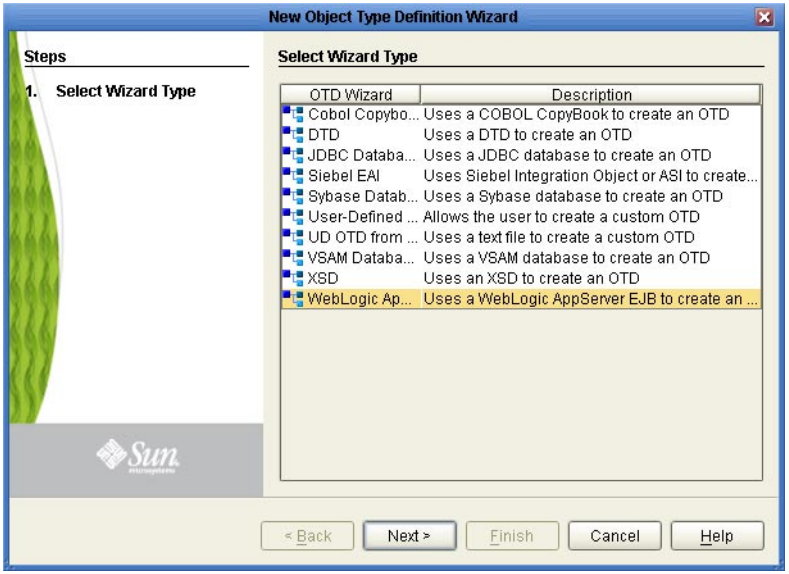
Select the Wizard Type

When you launch the OTD Wizard, the first thing you need to do is select the type of OTD you want to create. The available options are populated based on what you have installed in your Java CAPS environment.

▼ To Select the Wizard Type

1. **From the Project tree, right click the Project and select New ⇒ Object Type Definition from the menu.**

2. **The Select Wizard Type page appears, displaying the available OTD wizards (see the figure below).**



3. **From the list, select either the Sun Java System AppServer OTD Wizard or the WebLogic AppServer Wizard.**

4. **Click Next.**

   The Specify OTD Name page appears.

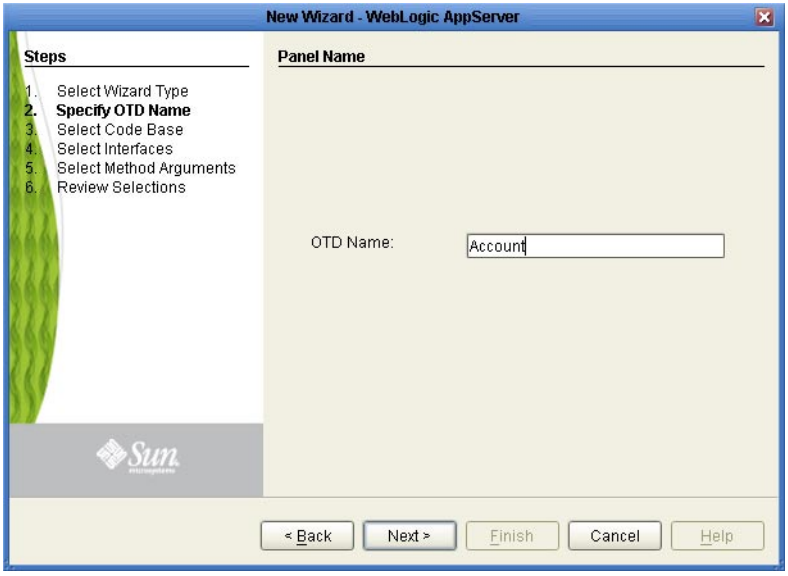
Next Steps Proceed to the following step, "Specify the OTD Name" on page 7.

Specify the OTD Name

▼ Specify the OTD Name

Before You Begin Complete the previous step, "Select the Wizard Type" on page 6.

1 Enter a name for the new OTD (see the figure below).



2 Click Next.

The Select Code Base page appears.

Next Steps Proceed to the following step, "Select the Code Base" on page 7.

Select the Code Base

From the Select Code Base page, you can select the directory that contains your EJB class files by selecting the root directory above the top-level Java package, or you can select a specific JAR file containing the EJB class files.

Note – Keep the following in minds when making your selections:

- If you do not specify a JAR file, the program searches through the entire directory looking for all Java Archive files. Searches on top level drives or directories can significantly increase search times. Only recognized Class File Root file names are accepted in the File Name field.
- EJB class files must contain a package name for the EJB Home and Remote Interface Classes. The wizard does not support EJB class files that do not provide a package name.
- EJB Class files and their dependent files must be located in a directory to be used with the OTD Wizard. The Wizard does not support EJB classes imbedded in archived files, such as EAR, WAR, or SAR files. These files must be extracted to a directory before they can be used to create an OTD.

▼ To Select the Code Base

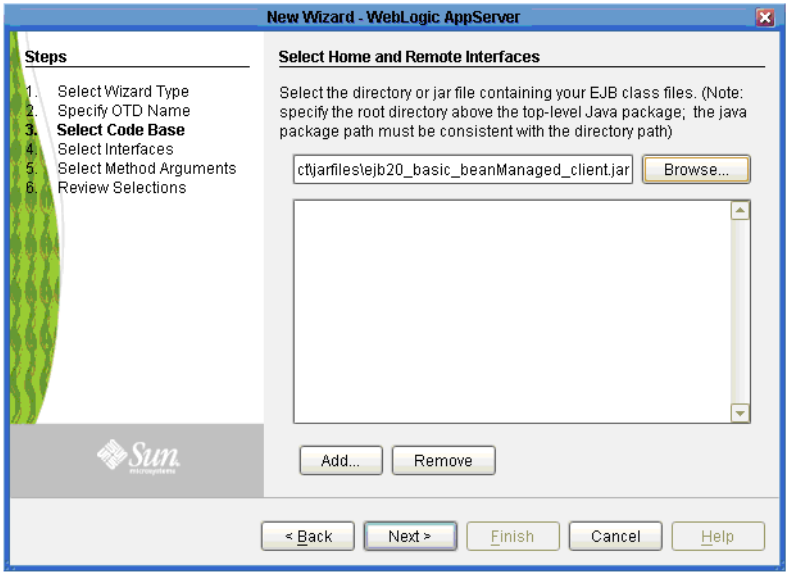
Before You Begin Complete the previous step, "Specify the OTD Name" on page 7.

1 **Click Browse and navigate to the specific root directory or archive (JAR) file.**

2 **Select the root directory or archive file.**

The EJB archive file must contain, at a minimum, both the Home and Remote Interface class pair for the EJB.

3 **Click Add or Remove to select or deselect any additional archive files to be available for design time (in the JCD) and runtime (in the Project EAR file).**



4 **With the file or directory selected (at a minimum) click Next.**

The Select Home and Remote Interfaces page appears.

Next Steps Proceed to the following step, "Select Home and Remote Interfaces" on page 9.

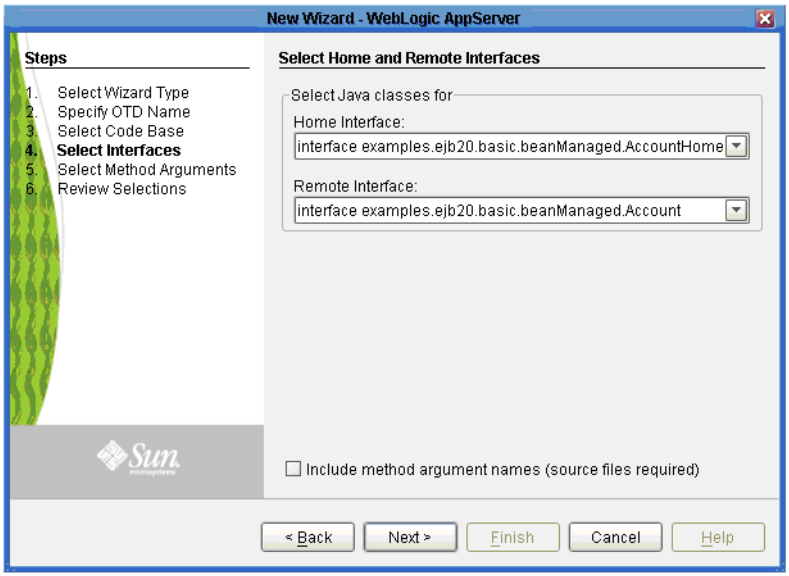
Select Home and Remote Interfaces

The Select Home and Remote Interfaces page displays the selected Java Home and Remote Interfaces. These fields are automatically populated. Both fields include a drop-down list that allows you to select the appropriate home and remote interface (if more than one choice is available).

▼ To Select Home and Remote Interfaces

Before You Begin Complete the previous step, "Select the Code Base" on page 7.

1 Review the selected Home and Remote Interface fields.



2 To add the method argument names to the OTD, select the Include method argument names option. Do not select this option if you do not have the EJB source code.

3 Click Next.

If the selected EJB file's interfaces are valid and the Select Method Argument Names option was not selected, the Review Selections page appears. Otherwise, the Select Methods Arguments page appears.

Next Steps Proceed to the following step, "Select Method Arguments" on page 10.

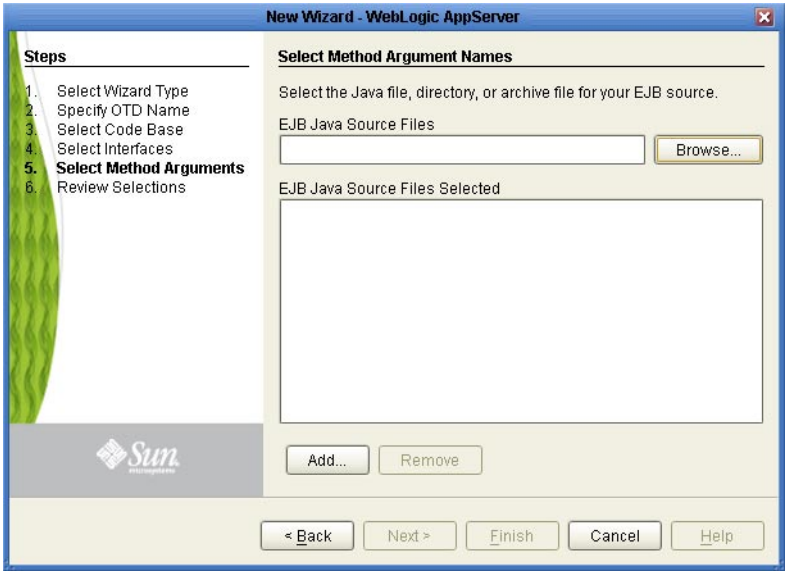
If you did not specify to select method argument names, skip to "Review Selections" on page 11.

Select Method Arguments

▼ To Select Method Arguments

Before You Begin Complete the previous step, "Select Home and Remote Interfaces" on page 9.

1. **Enter the Java source file, or click Browse to locate the Java source files for the EJB archive supplied. Only a `.java` file or an archive file (containing `.java` files) is accepted; if a directory is supplied, then it searches only for `.java` files.**



2. **Select the source files and click Open.**

   The files are populated to the EJB Java Source Files Selected field. At least two files must be supplied -- one for the home interface and one for the remote interface or the EJB bean implementation source. Once the field contains all the necessary EJB source files, click Next.

Caution – It is the user's responsibility to match the correct source files to the EJB.

3. **Click Add to locate and add Java source files to the EJB Java Source Files Selected field. Select a file and click Remove to remove unwanted files.**

4. **Click Next.**

   The Review Selections page appears.

Next Steps Proceed to the following step, "Review Selections" on page 11.

Review Selections

Once you have entered all the OTD configuration information, a summary page appears for you to review your selections.

▼ To Review Selections

Before You Begin Complete one of these previous steps:

- "Select Home and Remote Interfaces" on page 9
- "Select Method Arguments" on page 10.

- **Review your selection information in the right pane of the page. To change any entries, click Back and return to the appropriate step.**

Next Steps Proceed to the following step, "Generate the OTD" on page 12.

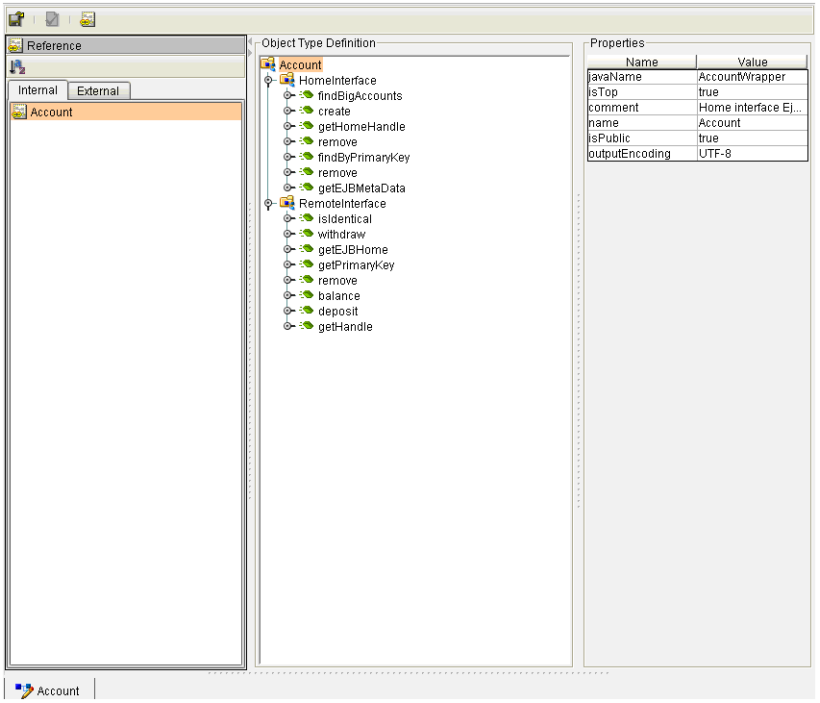
Generate the OTD

When the wizard is done generating the OTD, the new OTD appears in the Project tree and the structure appears on the OTD Editor.

▼ To Generate the OTD

Before You Begin Complete the previous step, "Generate the OTD" on page 12.

- **Once you are satisfied with your selection information, click Finish.**

  A Confirm duplicate file dialog box might appear, stating that the JAR file is already in the Project. Select **Yes**, the JAR file is added to your Project. If you click **No**, an additional copy of the JAR file will be added to the Project.

The OTD Editor appears with the generated OTD (see the figure below).