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Header Data

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Release Status Released for Customer
Component   BC-XI-CON-AFW J2EE Adapter Framework
Priority   Recommendations / Additional Info
Category   Advance development

Symptom

The XI Adapter Framework includes an adapter components based on external sources, such as Apache Axis for Axis Adapter and JMS for JDBC/JMS adapters.
In order to use this components and to develop applications based on them, it is required to add additional library JARs packaged in:

- Axis provider lib SDA for Axis Adapter Component
- JMS adapter lib for JMS and JDBC adapters.

This SAP Note provides an overview on preparing and updating these SDAs with additional library JARs.

Other Terms

XI, Adapter Framework, Axis,JMS,JDBC

Reason and Prerequisites

1. The tool provides functionality for creating SDA files for axis or JDBC/JMS adapters, depending on the customer needs:
2. For SAP NetWeaver PI 7.11 and higher, find a necessary SAP XI 3RD PARTY SCA from the installation media or from SAP Service Marketplace, and copy it within a specific directory on your local system. This is not needed for 7.0x and 7.10 releases.
3. Download and copy all needed libraries JAR files for:

a) Axis framework and supplementary libraries JAR files in a specific directory on your local system. If you open XI Axis Adapter Message Servlet (**http://<system_host>:<system_port>/XIAxisAdapter/MessageServlet**), you can find information about the links from which the needed Axis framework and additional components can be downloaded. The following components are basis for the Axis Framework and are mandatory to present:

- Apache-Axis
- Jakarta-Commons Discovery
- Jakarta-Commons Logging

Other components provide specific functionality are optional.

b) JDBS and JMS external drivers: If you want to install the MaxDB JDBC driver and the SonicMQ JMS driver, this section should look like this:

- sapdbc.jar
- client.jar

4. Create a specific directory for output data where newly created SDAs should be stored.

Solution

Use the **sdaMakerTool.jar** file, attached to this SAP Note, to create an XI Axis provider library SDA.
1. Start the tool directly or from the command line via command: **java -jar axisMakerTool.jar**.
2. **Select a specific version '7.0' , '7.10 , '7.11', '7.30', '7.31' , or '7.40' from the combobox.**
3. Select SDA name:

- 'aii_af_axisprovider.sda' for Axis Adapter for version 7.0
- 'aii_af_jmsproviderlib.sda' for JDBC\JMS Adapter for version 7.0
- 'com.sap.aii.af.axisproviderlib.sda' for Axis Adapter for version 7.10 and higher
- 'com.sap.aii.adapter.lib.sda' for JDBC\JMS Adapter for version 7.10 and higher

4. Checkbox "**Don't use SAP XI 3RD PARTY SCA**" is visible only for releases 7.11 and higher. If you are not able to find such an SCA file in SAP Service Marketplace, you can use it in order to create an SDA file without using SCA.

5. The tool consists of text fields in which the following information is displayed by pressing the

"**Browse**" buttons:

- Directory where SAP XI 3RD PARTY SCA is stored (only for releases 7.11 and higher).
- Path to the copied Axis framework JAR files (see step **2** from the **Prerequisites** section).
- Directory for output data (see step **3** from **Prerequisites** section).

6. When the "**Start**" button is pressed, the newly created SDA will be created in the directory for output data.

Troubleshooting:
1. The tool requires Java version 1.4 and higher to be installed and configured.
2. If SAP XI 3RD PARTY SCA cannot be found in SAP Service Marketplace, you can deselect checkbox "**Don't use SAP XI 3RD PARTY SCA**". This will allow you to create SDA without using 3RD Party SCA.
3. The tool offers command line interface if no visual environment (Xserver, RDP, and etc.) is available on the system. Make sure that JAVA_HOME variable is set and JAVA_HOME/bin directory is included in the PATH.
To run the command line interface, execute:
java -cp <path_to_ axisMakerTool.jar > com.sap.extracttool.AxisSDAMaker -v <version name> <adapter name> <path to SCA> <path to jars folder> <path to output directory> <sda name>

NOTE: <path to SCA> is not needed for releases 7.0x and 7.10.

SDA name and version name vary for the different releases:

Version	SDA name	
	Axis Adapter	JMS\JDBC Adapter
7.00	**aii_af_axisprovider.sda**	aii_af_jmsproviderlib.sda
7.10	**com.sap.aii.af.axisproviderlib.sda**	com.sap.aii.adapter.lib.sda
7.11	**com.sap.aii.af.axisproviderlib.sda**	com.sap.aii.adapter.lib.sda
7.30	**com.sap.aii.af.axisproviderlib.sda**	com.sap.aii.adapter.lib.sda
7.31	**com.sap.aii.af.axisproviderlib.sda**	com.sap.aii.adapter.lib.sda
7.40	**com.sap.aii.af.axisproviderlib.sda**	com.sap.aii.adapter.lib.sda

4. If the provided tool does not work properly for releases 7.11 or higher, you can perform the following steps manually in order to prepare updated axis providerlib or JMS adapter sda:

a) Execute all steps from the **Prerequisites** section.

b) Extract SDA from SAP XI 3RD PARTY SCA.

c) Unzip SDA. It consists of three folders named **lib**, **META-INF** and **<server>**, whose content needs to be updated.

d) **Copy all downloaded JAR files from step 3** of the **Prerequisites** section to the lib folder of the unzipped SDA.

e) Update the provider.xml file in the server folder of the unzipped sda. Add the existing JAR file names in it. For example:
Axis Adapter: replace the **<jars />** tag by adding the following JAR file names in provider.xml file:

```
<jars>
<jar-name>lib/addressing-1.0.jar</jar-name>
<jar-name>lib/axis.jar</jar-name>
<jar-name>lib/commons-codec-1.6.jar</jar-name>
<jar-name>lib/commons-discovery-0.5.jar</jar-name>
<jar-name>lib/commons-httpclient-3.0.1.jar</jar-name>
<jar-name>lib/commons-logging-1.1.1.jar</jar-name>
<jar-name>lib/commons-net-3.1.jar</jar-name>
<jar-name>lib/httpclient-4.1.3.jar</jar-name>
<jar-name>lib/Sandesha-1.0.jar</jar-name>
<jar-name>lib/wss4j-1.6.5.jar</jar-name>
<jar-name>lib/xmlsec-1.5.1.jar</jar-name>
</jars>
```

f) Archive all updated content into SDA and name it **com.sap.aii.af.axisproviderlib.sda**. JMS/JDBC adapter: edit the provider.xml descriptor by adding the line **<jar-name>driver-jar</jar-name>** for each provider-specific JAR file in the <jars> section. If you want to install the MaxDB JDBC driver and the SonicMQ JMS driver, this section should look like this:

```
<jars>
  <jar-name>sapdbc.jar</jar-name>
  <jar-name>client.jar</jar-name>
</jars>
```

g) Archive all updated content into SDA and name it **com.sap.aii.adapter.lib.sda**.

Validity

Software Component	From Rel.	To Rel.	And Subsequent

SAP_XIAF	3.0	3.0	☐
	7.00	7.02	☐
	7.10	7.11	☐
	7.30	7.30	☐
	7.31	7.31	☐
	7.40	7.40	☐
SAP-XIAFC	3.0	3.0	☐

References

This document refers to:

SAP Notes

1349967   Upgrade to Business Suite 7 Innovation 2010: IBM DB2 for i
1338387   Upgrade to EHP 2 for SAP NetWeaver 7.0 Java (DB2 for IBM i)
1179413   Upgrade to SAP Business Suite 7: IBM DB2 for i
1122345   Upgrade to SAP NW 7.0 SR3 Java (IBM DB2 for i5/OS)

This document is referenced by:

SAP Notes (4)

1338387   Upgrade to EHP 2 for SAP NetWeaver 7.0 Java (DB2 for IBM i)
1179413   Upgrade to SAP Business Suite 7: IBM DB2 for i
1159860   IBM i: Failure During Deployment aii_adapter_axis_app.sda
1122345   Upgrade to SAP NW 7.0 SR3 Java (IBM DB2 for i5/OS)

Attachments

File Name	File Size (KB)	Mime Type
sdaMakerTool.jar	279	application/x-zip-compressed