

Using the XML/SOAP Wrapper

This chapter covers the following topics:

- Mapping IDL Parameters to XML Structures
- Setting Wrapper Properties
- Generating an XMM File
- Default Values Used by the XML/SOAP Runtime

See also *Migration Considerations for XML/SOAP Components*.

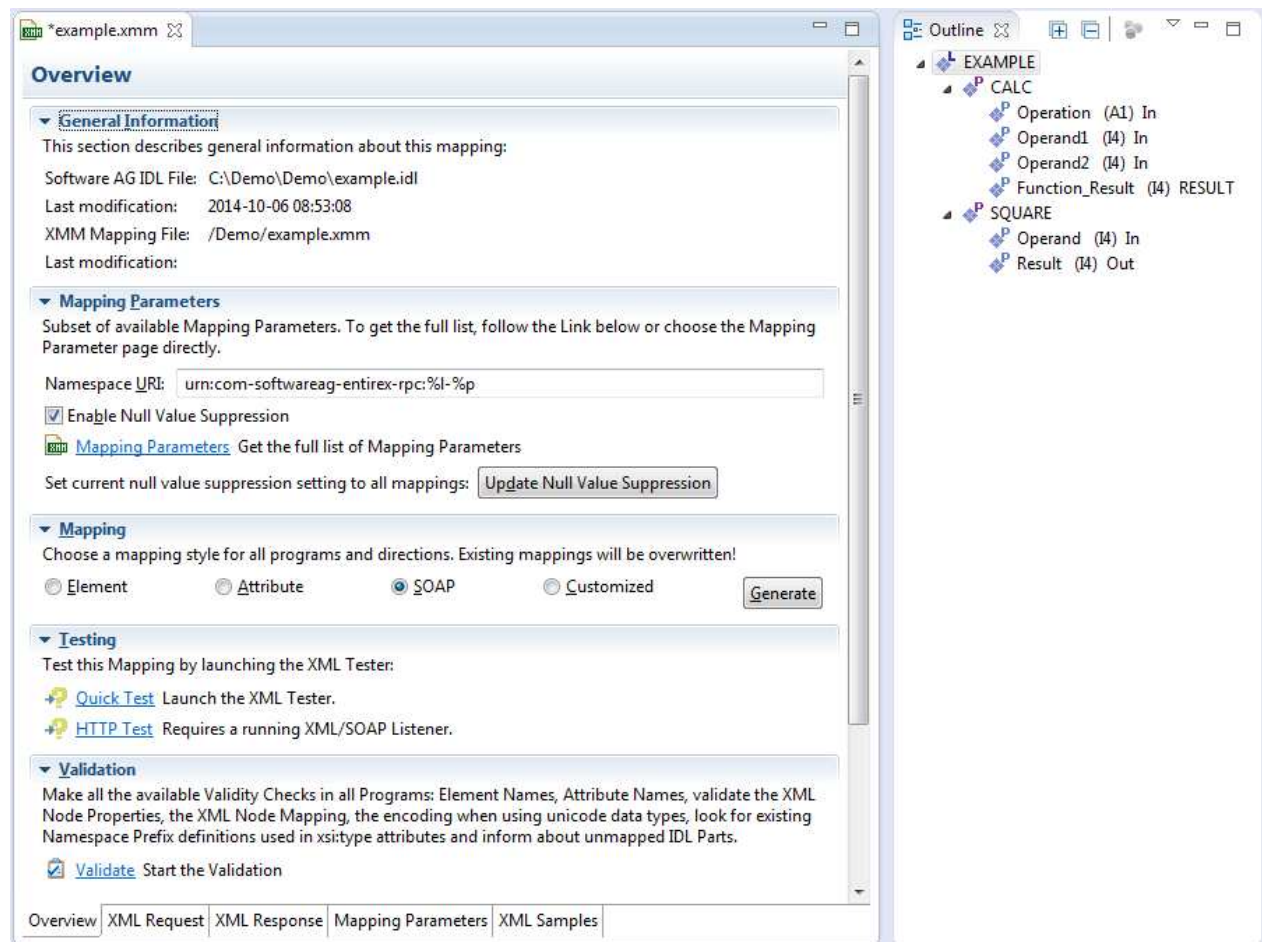
Mapping IDL Parameters to XML Structures

Use the *XML Mapping Editor* to map IDL parameters to XML structures.

The mapping editor offers several mapping types:

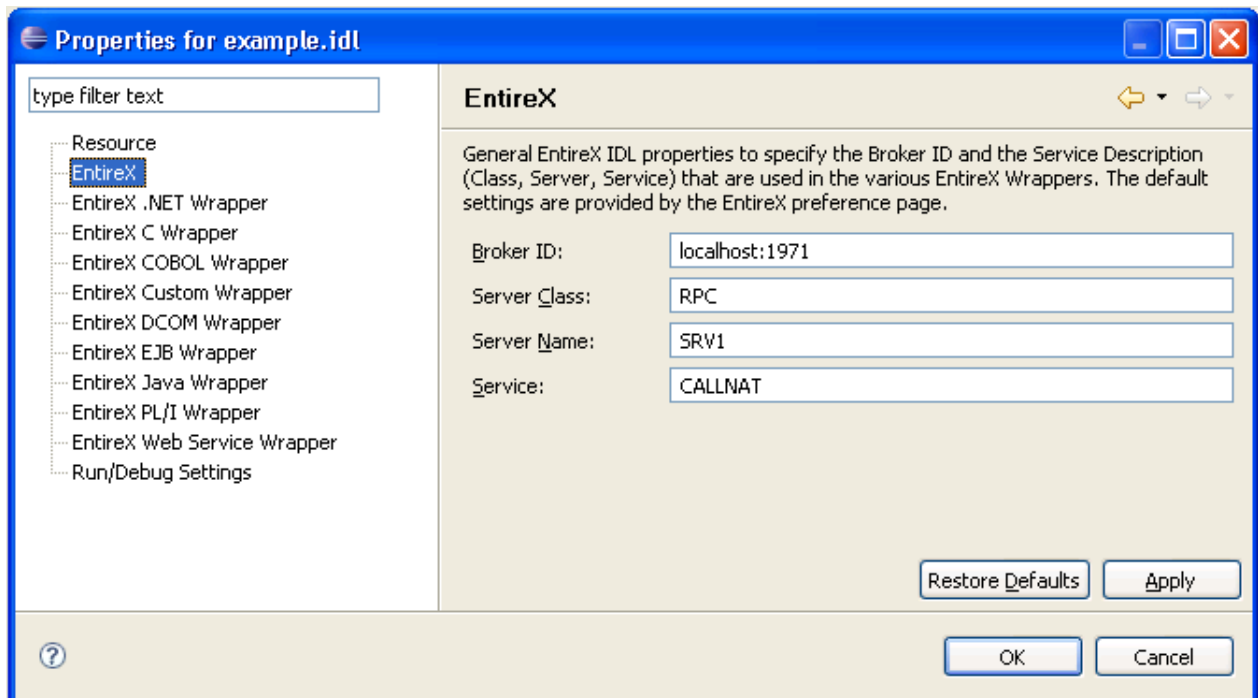
- element mapping: all IDL parameters map to elements in an XML document
- attribute mapping: all scalar/simple IDL parameters map to attributes; program name and complex types (groups and structures) map to elements
- SOAP mapping: a standard SOAP document is generated, IDL parameters map to elements in <Body>-part
- user-defined mapping: users create their own XML or SOAP documents and map the IDL parameters to elements or attributes of an XML document.

In addition, the mapping editor shows one of general information (**Overview** page), the request message (**XML Request**), response message within fault information (**XML Response** page), mapping parameters (**Mapping Parameters** page) or sample editor (**XML Samples** page) at one time.



Setting Wrapper Properties

Before you start the generation of the XMM file, select the IDL file and open the context menu to set the properties for this IDL file. The settings for an IDL file are inherited from the preferences (they provide the defaults):



➤ To set the general options, path settings and XML options

1. Select **Preferences...** in the Windows menu of Eclipse.
2. Select **Software AG > EntireX**.
3. Select the tab **XML**.
4. Fill in the screen as follows:

Screen Item	Description
XML default encoding	This encoding is used for the XML/SOAP document sent, if the box "Use incoming XML encoding" is not checked (for XML-based clients) or if the XML/SOAP RPC Server is used.
Use incoming XML encoding	Check this box to enable the XML/SOAP Wrapper to use same encoding for the incoming document as for the outgoing document.

5. Confirm the settings with **OK**.

After setting the general properties, set the properties specific to the IDL file. The settings for the XML/SOAP Wrapper classes are on the two tab pages: General and XML.

➤ To set the IDL properties

1. In the file tree browser, select the IDL file to be processed.
2. To display the **Properties** window, use either the context menu or the **File** menu and choose **Properties**.

The subsequent screen will show the defaults you entered with **Tools > Options..**

3. Use this page to specify the Broker ID, the server address (**Server class**, **Server name**, and **Service**) and other properties. If you do not enter Broker ID, server name, etc., the defaults (as entered in the **Tools / Options** menu) will be used.
4. Select the **XML** tab.
5. Complete the screen as follows:

Screen Item	Description
XML default encoding	This encoding is used for the XML/SOAP document sent, if the box "Use incoming XML encoding" is not checked (for XML-based Clients) or if the XML/SOAP RPC Server is used.
Use incoming XML encoding	Check this box to enable the XML/SOAP Wrapper to use the same encoding for the incoming document as that used for the document sent.

6. Confirm the settings with **OK**.

Generating an XMM File

To generate the XMM file, use the *EntireX Workbench*.

The IDL file, the XML file and the properties are used to generate an XMM file.

To generate the XMM file

1. Specify an IDL-XML mapping.
2. Save the mapping.

If you are using the default settings of the *EntireX Workbench*, an XMM file is saved. The name of the XMM file is *<idl file name>.xmm*



Warning:

If you modify the IDL file, the IDL-XML mapping file or the properties, you must re-generate the XMM file.

Default Values Used by the XML/SOAP Runtime

The XML/SOAP Runtime uses standard default values for all parameters (for EntireX RPC) and elements/attributes (for XML documents) if no value can be retrieved and no user default value is defined. The table below shows the standard default values for XML and RPC.

Value	Description
A(<i>n</i>)	XML: Empty string with length 0 RPC: String with <i>n</i> blanks
AV	Empty string with length 0
B(<i>n</i>)	String with <i>n</i> zeros
BV	Empty field with length 0
K(<i>n</i>)	XML: Empty string with length 0 RPC: String with <i>n</i> blanks
KV	Empty string with length 0
L	false
I1	0
I2	0
I4	0
F4	0.0
F8	0.0
N	0.0
P	0.0
D	new Date()
T	new Date()
U(<i>n</i>)	XML: Empty Unicode string with length 0 RPC: Unicode String with <i>n</i> blanks
UV	XML: Empty Unicode string with length 0