Mapping Templates in PI

Applies to:

PI 7.0

Summary

This document is prepared to give the beginners a brief idea about External Definitions in PI. The document contains basics of External definitions and also shows how and where they with necessary screenshots.

Authors: Sunil Ojha and Abhijit Daptary
Company: Capgemini Consulting India Private Ltd.
Created on: Jan 04, 2008

Author Bio

Sunil Ojha is a XI certified / workflow consultant. His current engagement is with Capgemini Consulting India Pvt. Ltd.

Abhijit Daptary is presently working in Capgemini Consulting India Pvt. Ltd as a Consultant. He has experiences in ABAP, Workflow and XI. He has worked in different fields of and has handled various scenarios on Workflow and XI.

Table of Contents

Mapping Templates Definition:

Based on data type can be saved as Mapping templates.

It is a Mapping template which can be reused or loaded in other message mapping or mapping templates.

It's a Standard schema for describing the message structure at runtime.

Features:
Mapping templates can be defined for:
- o   Data type
- o   Complex type in Idoc & RFC
- o   Complex type in external Definition : If a description of the message structure already exists in one of the above formats, you can use it in the Integration Repository by importing it as an external definition rather than re-entering it manually using the data type editor

The referenced type used in mapping template can be in any SWCV.

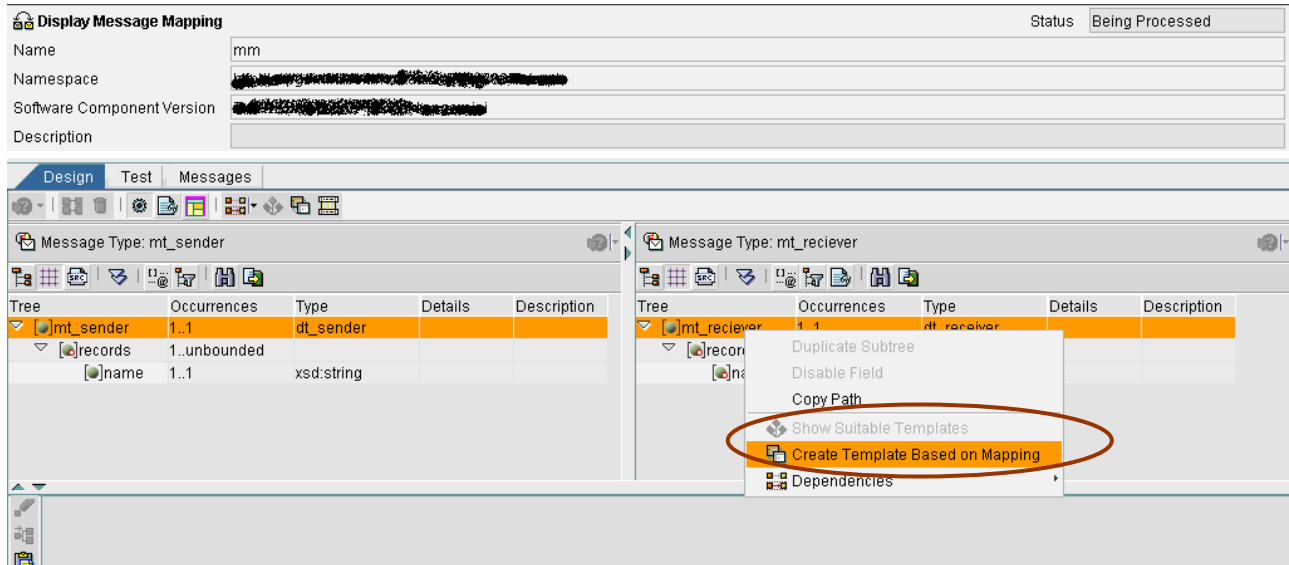## Mapping templates

Activities:

Defining Mapping Templates

- • You can create mapping templates again and load the structures as usual by using input help in the mapping editor.
- • You can save mapping templates in a message mapping:

1.   Select a type element in the source and target structure (the element must reference a non-built-in XSD data type).
2.   Choose *Save Mapping Template* from either the target structure context menu or from the object toolbar.
3.   Enter a name for the new mapping template and then create it.
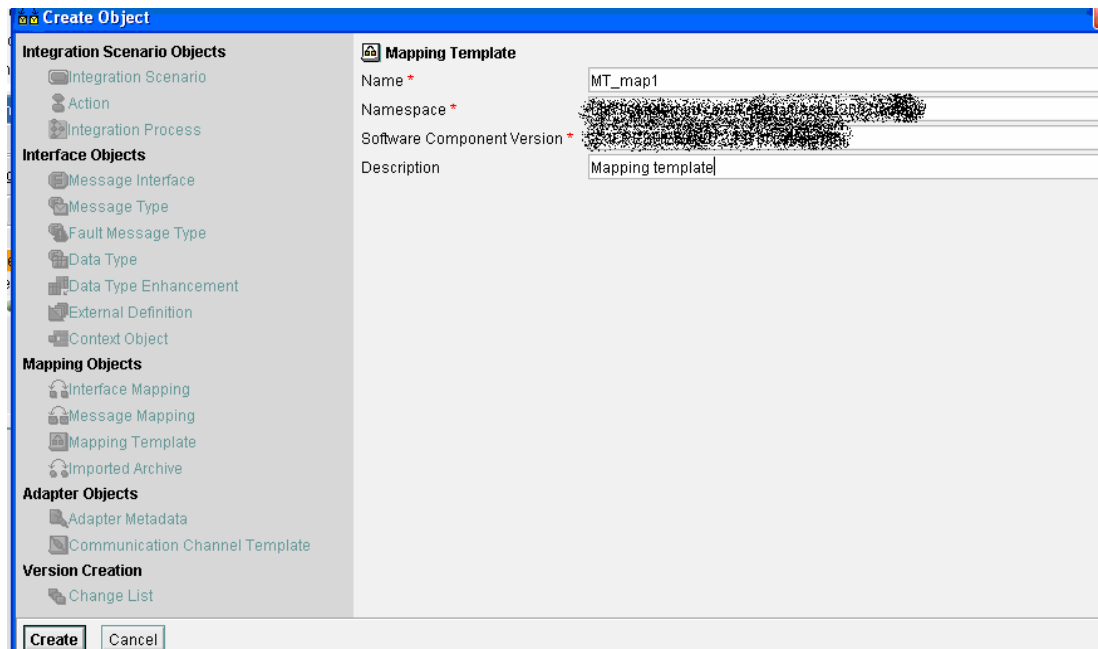
Using Mapping Templates

You can use mapping templates in message mappings from any software component version:

1.   In the mapping editor, select a type element in the source and target structure (the element must reference a non-built-in XSD data type).

2.   Choose *Load Mapping Template* from either the target structure context menu or from the object toolbar.

3.   If mapping templates are available for the types in the source and target fields, you can select them in the dialog window that is then displayed.
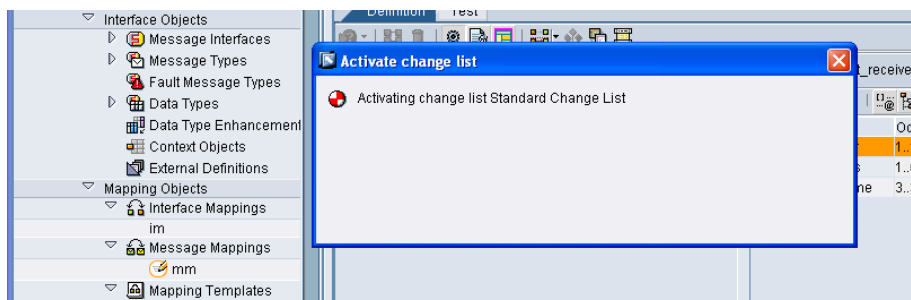
Select the mapping for which you want to create the mapping template and choose the mapping and click the **Create Template based on mapping**.

Enter the name and description of the Mapping Template and Click the **Create** Button

Save and Activate the Mapping Template Created.

Hence, mapping template has been created.
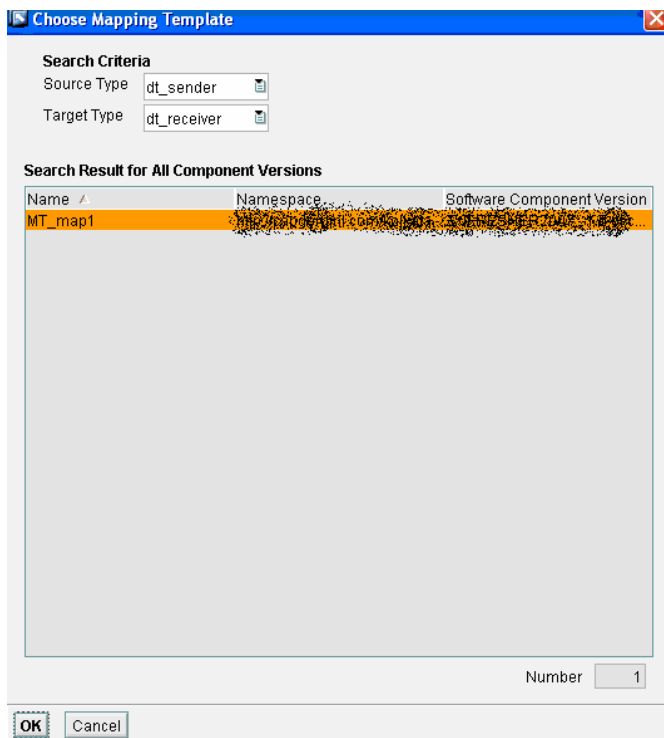
Displaying Mapping Templates Used

To display all the mapping templates used in a particular message mapping, choose *Message Mapping → Mapping Templates Used*.

Now, in order to use the mapping template that has been created create a mapping and Click on Show suitable Templates.
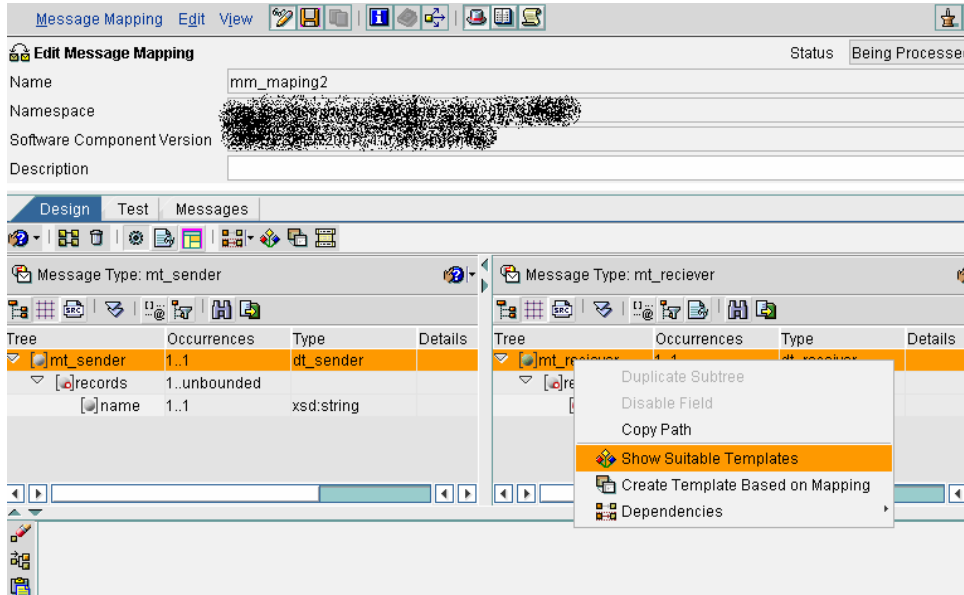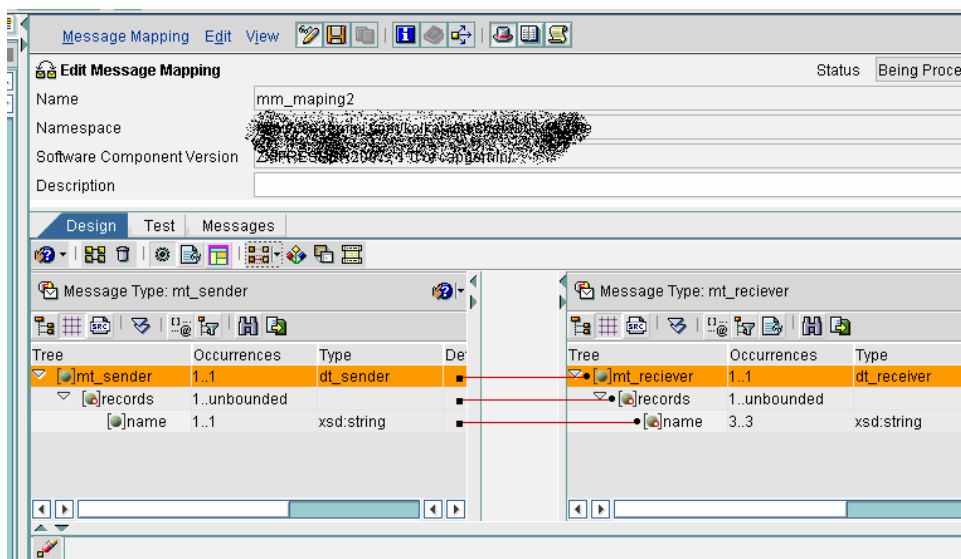

Choose the Templates suitable for the mapping between from the Source to Destination Data Types.
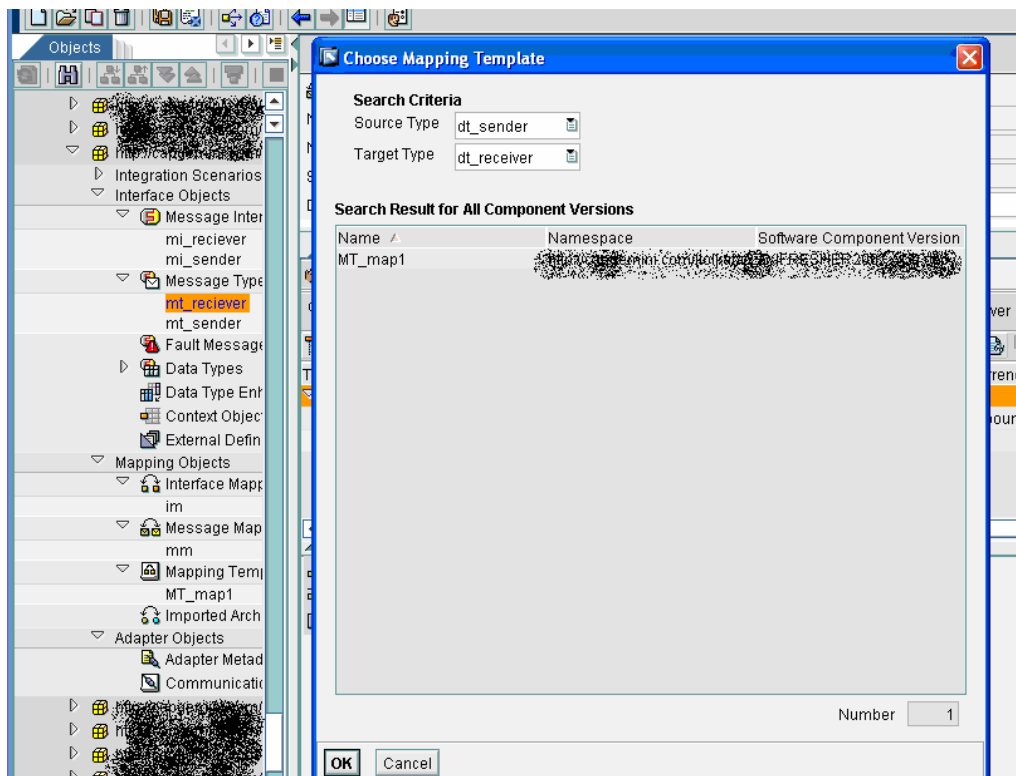
The mapping will be displayed as in the mapping template.

External definition:

Integration

An external definition enables us to import a local WSDL, XSD, or DTD file to the Integration Repository and specify which parts of the schema to extract as the description for a message.

We can use these extracted *message schemas* as:
- Output or input messages in message interfaces
- Source or target structures for message mappings

In the Integration Builder, assigned message schemas are labeled as *External Message.* As when structuring message interfaces, message schema have the same meaning as message types.

Prerequisites

The document to be imported must conform to the WSDL, XSD, or DTD standard.

Extraction of Message Schema

If the file is not already in WSDL format, the Integration Builder converts imported external definitions to a WSDL definition more suitable for further use. During this procedure, the Integration Builder identifies the definitions that describe the message structure. Depending on the imported format, you can define the mode for this procedure before import:

Modes for Importing External Definitions

| External Format	Selection Options in *Messages* List Box	Meaning
WSDL	*Do Not Extract Messages*	Definition imported without conversion, to enable central access to the external definition.
	All Message Definitions Contained	All message definitions extracted in WSDL. If the message definition contains more than one part, all parts are grouped together using a superordinate part.
	Using RPC Style	
XSD	*Do Not Extract Messages*	See above.
	All Elements Contained	All element definitions interpreted as message schema.
	All Unreferenced Elements	Only those element definitions that are not referenced by another element are interpreted as message schema.
DTD	*Do Not Extract Messages*	See above.
	Message from DOCTYPE	DOCTYPE tag interpreted as message schema.
	Message from First ELEMENT	First ELEMENT tag interpreted as message schema.

References

WSDL, XSD, and DTD documents can all reference each other

Activities

Create an external definition (see: Creating a New Object).

1.   In the *Category* list field, choose whether you want to import a WSDL, XSD, or DTD document. This setting determines which selection options are available to you in the *Mode* list field.

2.   In the *Mode* list field, choose which parts of the document you want to interpret as a message schema (see above).

3.   Use the file dialog to choose a file to upload to the Integration Repository. Due to technical reasons, the Integration Builder can only note the file name and not the file directory path.

4.   Once you have selected the file, use the tab pages to call up the following information:

- ○   *Imported Document*: Your file in text format.

- ○   *Messages*: The message schemas that have been extracted using the selected mode.

- ○   *WSDL*: The result of the conversion to WSDL.

- ○   *External References*: Overview of the references used in the imported document. This will show any other imported documents that have been recognized.

5.   If you want other external definitions to be able to reference your imported document, specify the unique ID for the document in the *Source* input field (as a rule, you can copy this from the document). This could be a URL, for example. In this way the Integration Builder can assign documents that reference each other to each other.

Creating an External Definition, go to the external definitions and Right click and click on **NEW**.
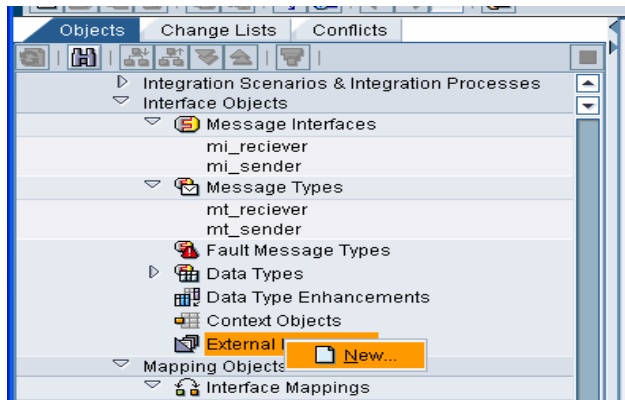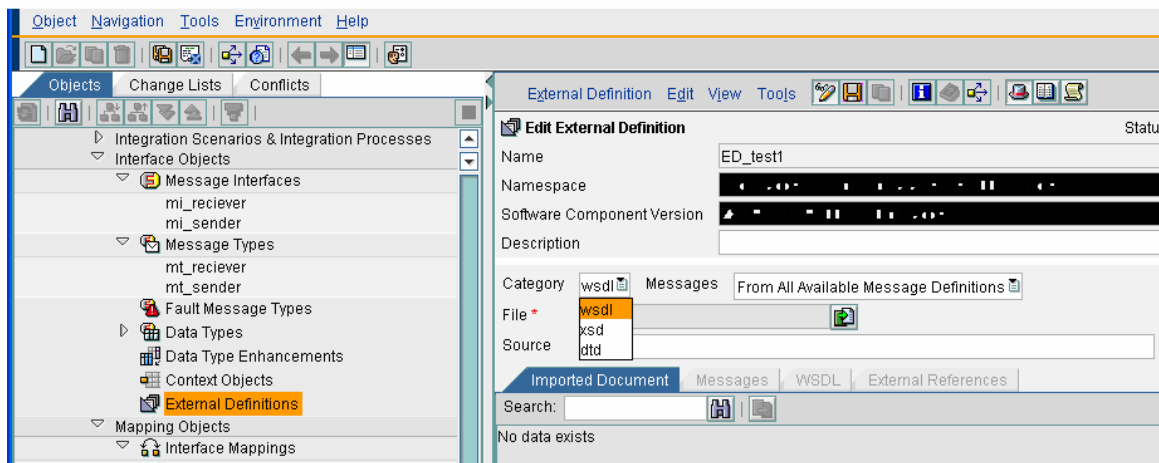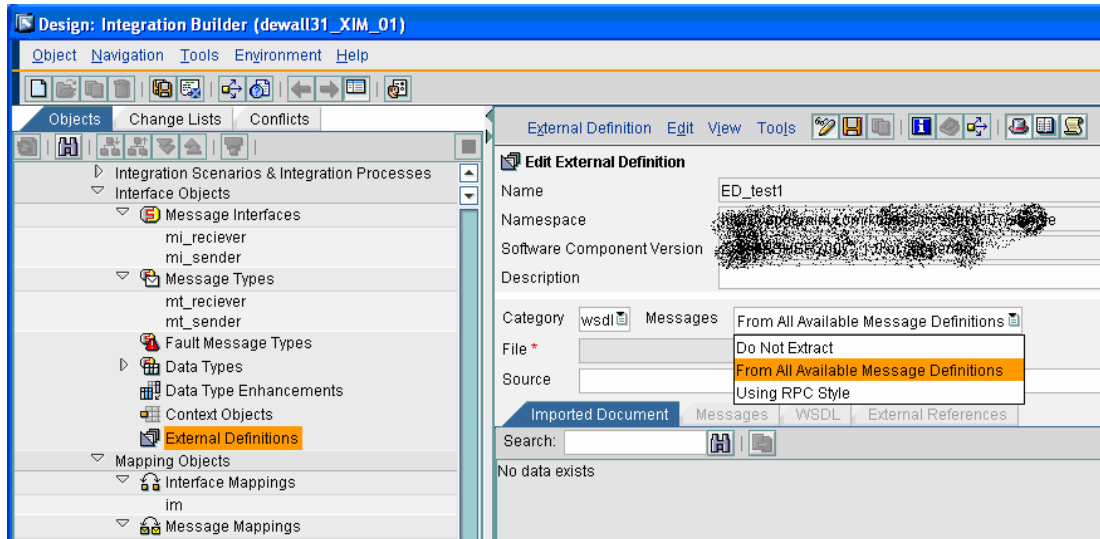

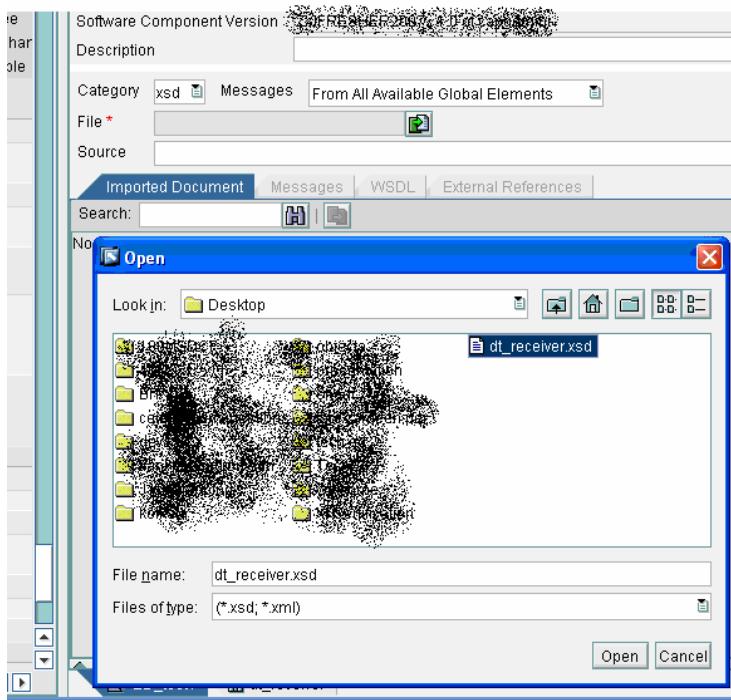Enter the Name and description of the External Definitions:
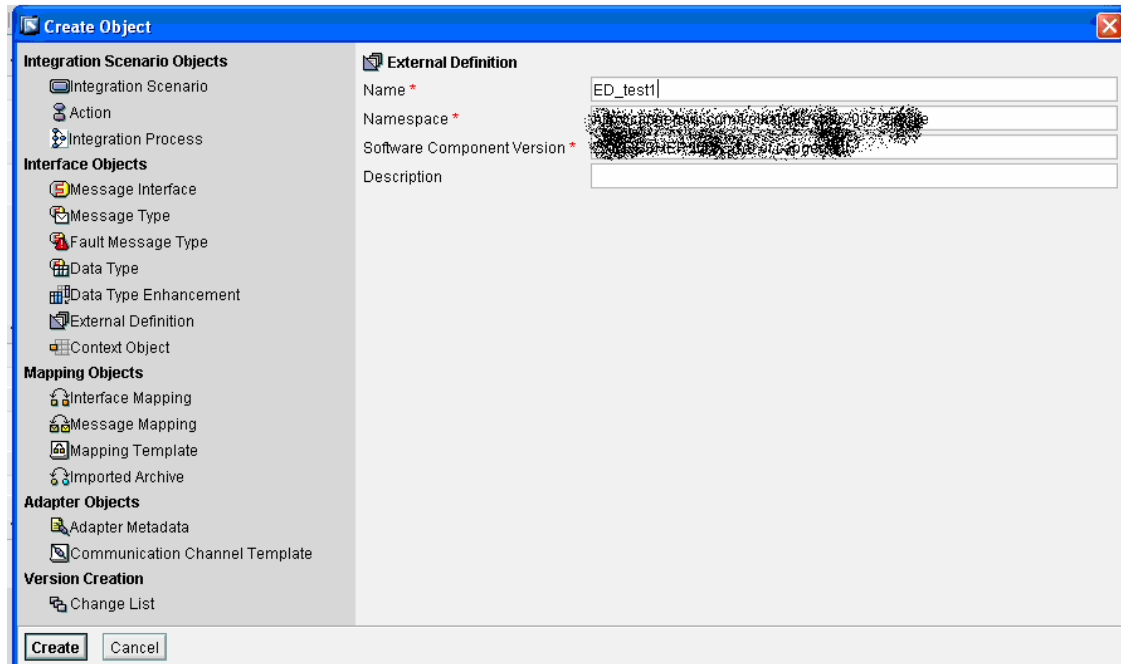
Enter the Category: WSDL or XSD or DTD.
Enter the Source....

Enter the Source Destination:

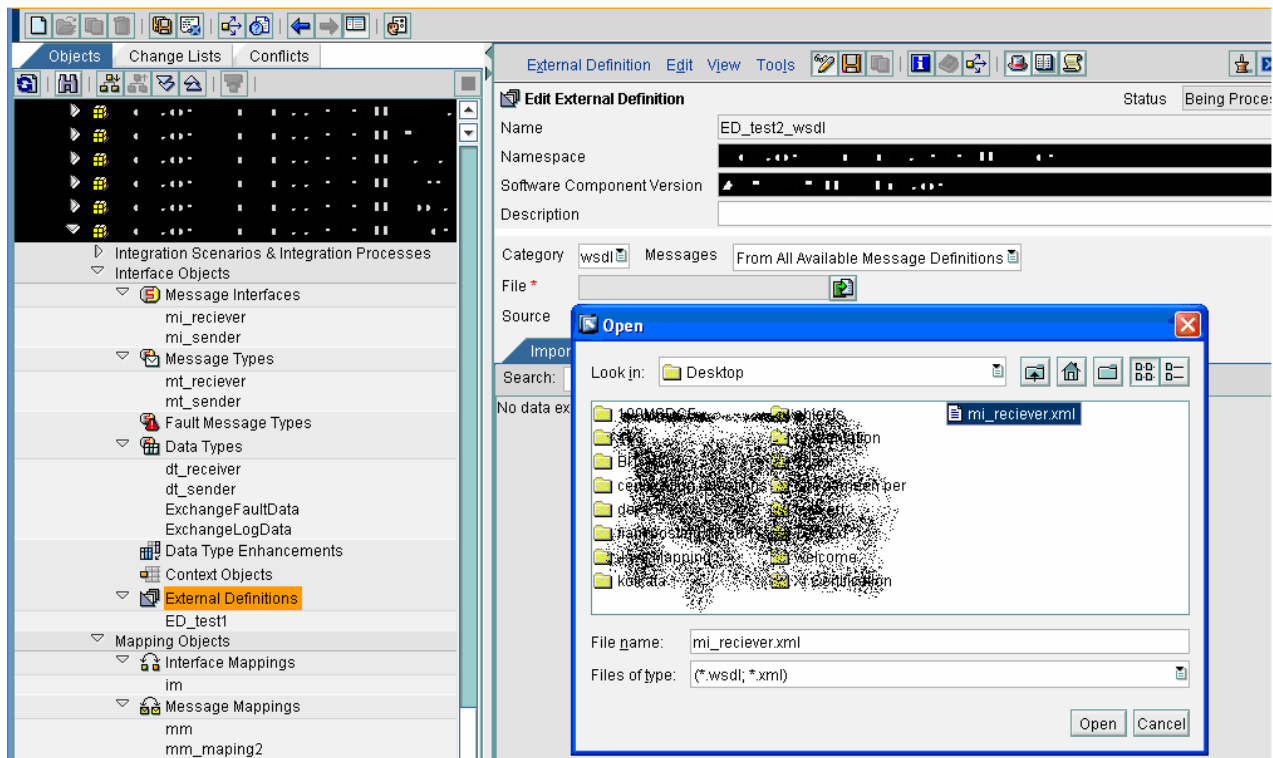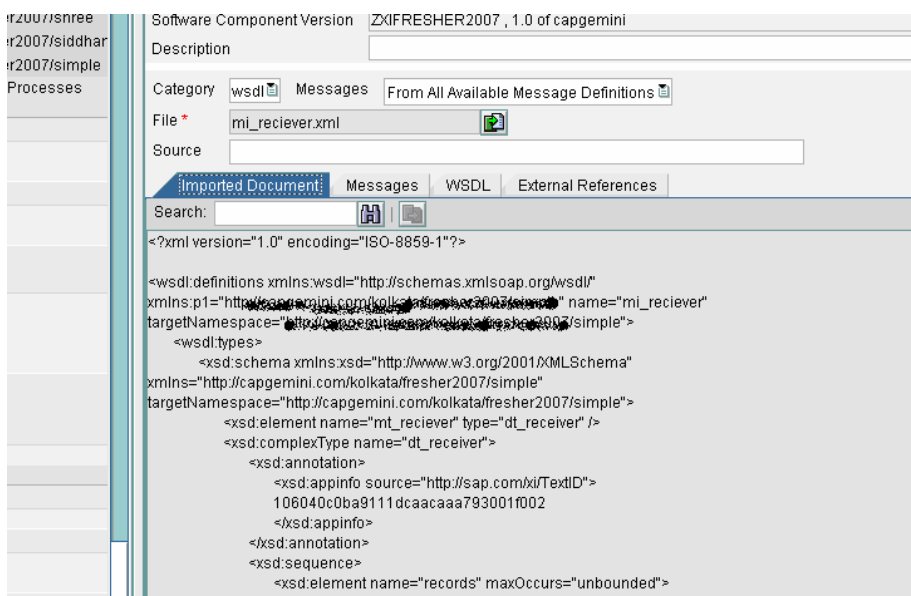

The XSD message will be displayed at the screen:
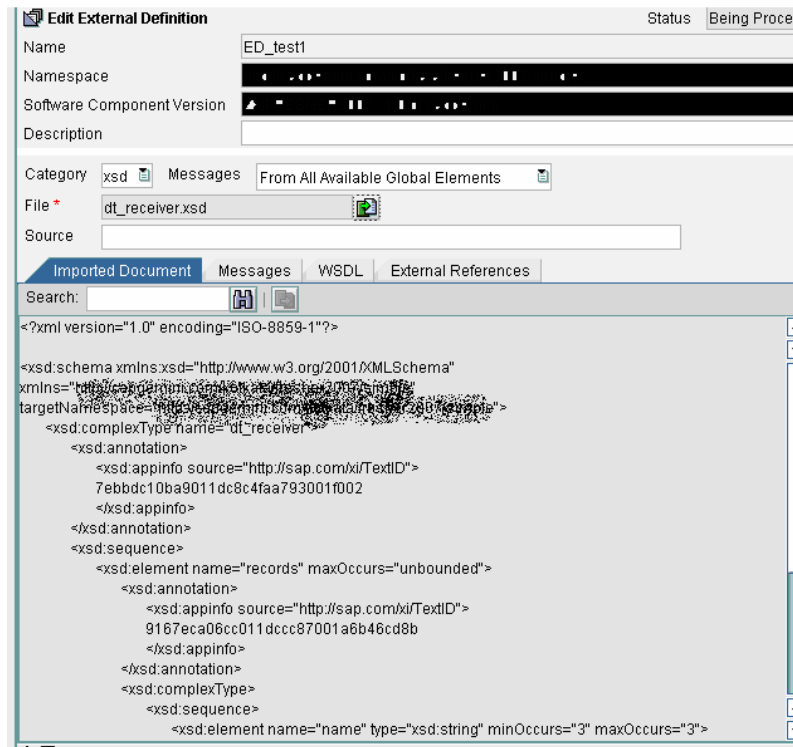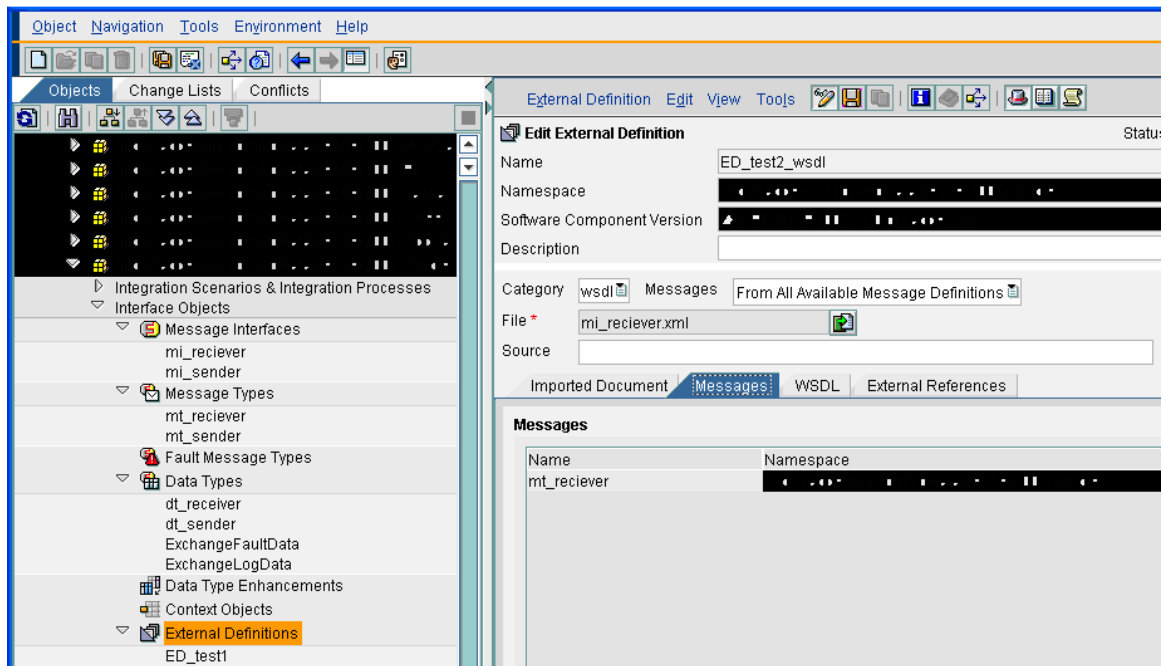
Activate the External Definitions.
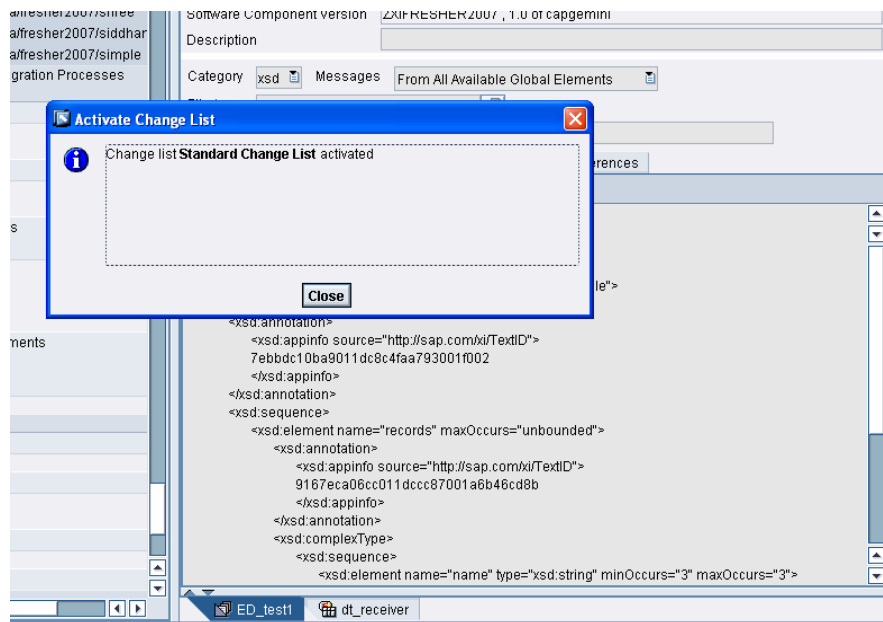
In a similar manner the external definitions can be can be from WSDL category in a similar manner.
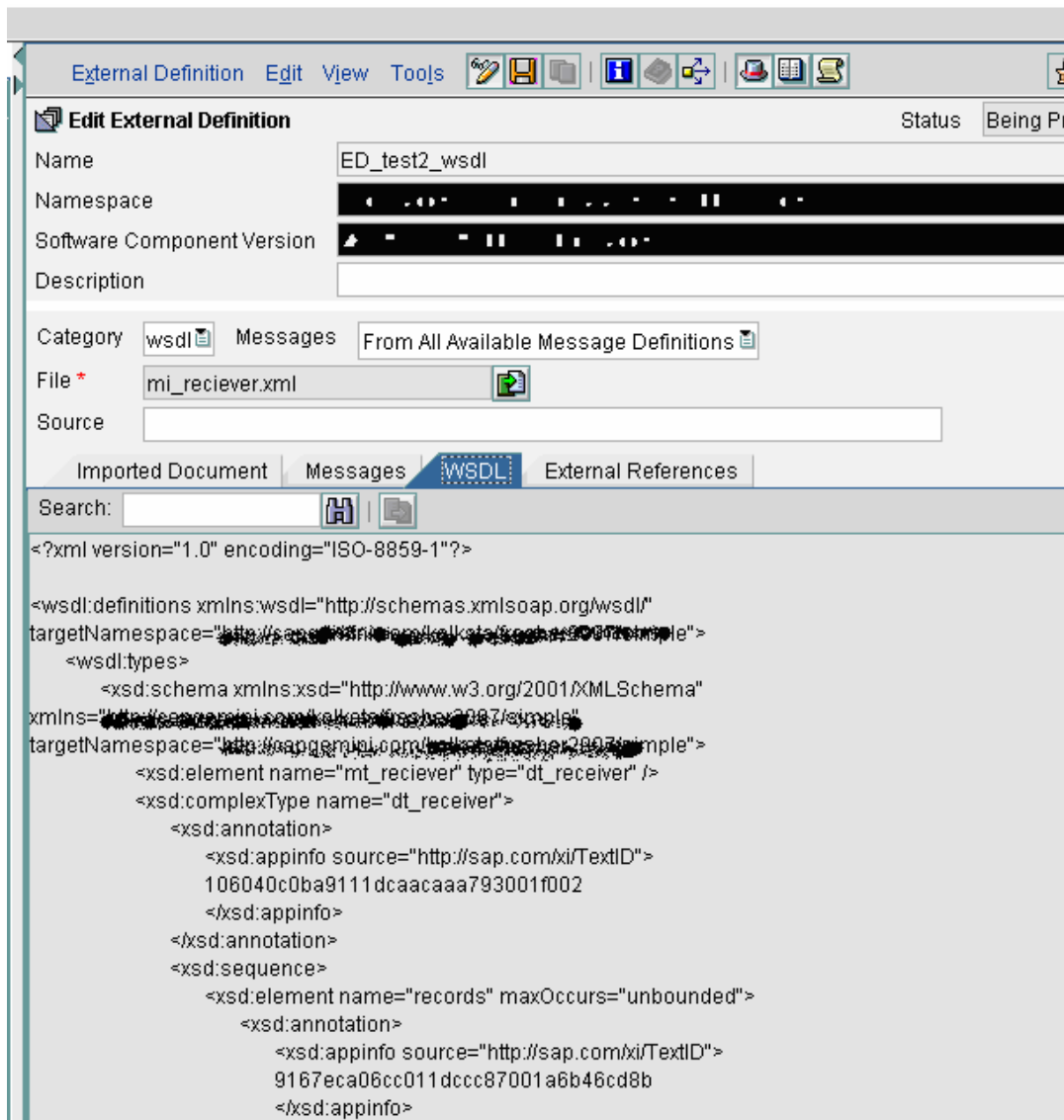Choose a file of the WSDL type from where the data type can be inserted.

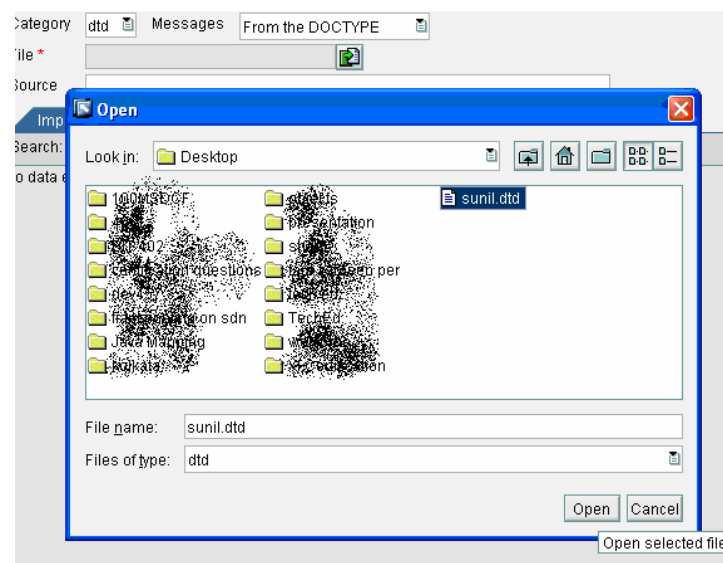The WSDL structure can be viewed at the display...

The message type and the other related parameters can be viewed at the sections:

External Definition   Edit   View   Tools

Edit External Definition   Status   Being Pr

Name	ED_test2_wsdl
Namespace	
Software Component Version	
Description	

Category wsdl   Messages   From All Available Message Definitions

File *   mi_reciever.xml

Source

Imported Document   Messages   WSDL   External References

Search:

```
<?xml version="1.0" encoding="ISO-8859-1"?>

<wsdl:definitions xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"
targetNamespace="http://...">
    <wsdl:types>
        <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns="http://..."
targetNamespace="http://sapgemini.com/...">
            <xsd:element name="mt_reciever" type="dt_receiver" />
            <xsd:complexType name="dt_receiver">
                <xsd:annotation>
                    <xsd:appinfo source="http://sap.com/xi/TextID">
                    106040c0ba9111dcaacaaa793001f002
                    </xsd:appinfo>
                </xsd:annotation>
                <xsd:sequence>
                    <xsd:element name="records" maxOccurs="unbounded">
                        <xsd:annotation>
                            <xsd:appinfo source="http://sap.com/xi/TextID">
                            9167eca06cc011dccc87001a6b46cd8b
                            </xsd:appinfo>
```

The external definitions can be from DTD file also similar way:

Related Content

http://help.sap.com/saphelp_nw04/helpdata/en/84/e8763c997fda50e10000000a11405a/frameset.htm

Disclaimer and Liability Notice

This document may discuss sample coding or other information that does not include SAP official interfaces and therefore is not supported by SAP. Changes made based on this information are not supported and can be overwritten during an upgrade.

SAP will not be held liable for any damages caused by using or misusing the information, code or methods suggested in this document, and anyone using these methods does so at his/her own risk.

SAP offers no guarantees and assumes no responsibility or liability of any type with respect to the content of this technical article or code sample, including any liability resulting from incompatibility between the content within this document and the materials and services offered by SAP. You agree that you will not hold, or seek to hold, SAP responsible or liable with respect to the content of this document.