

A Step-By-Step Guide on File to Web Service using BPM



Applies to:

SAP Exchange Infrastructure (XI) 3.0 / Process Integration (PI) 7.0

This document is for all XI aspirants who want to create File to Web Service scenario. Hence, it applies to **Beginners** and **Intermediate** XI developers,

Summary

This document provides complete step by step procedure to create File to Web Service scenario. As because File functions in asynchronous mode and Web Service functions in Synchronous mode we need to create Async-sync bridge with the help of BPM.

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Author Bio

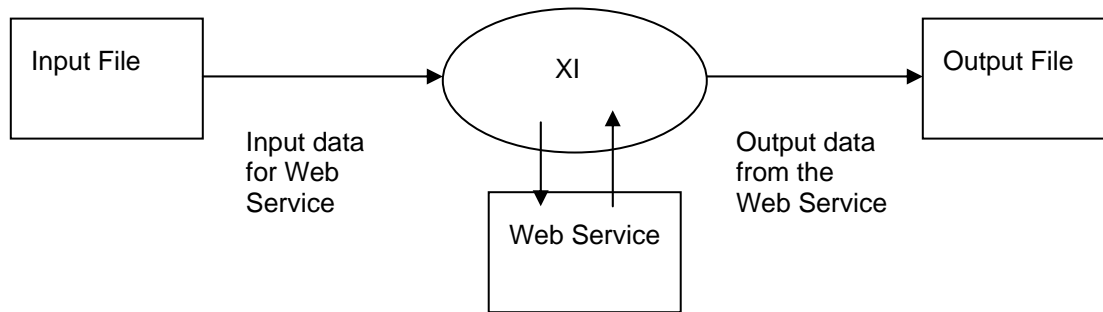
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Scenario

Here the input parameter for the Web Service is sent from a file and the response from the Web Service comes into XI which is then written into another file.



Pre-Requisite

Knowledge Requirements

Basic knowledge of XI and how it works.

- Nice to have one file to file scenario implementation experience. Please see the reference section if you want to go through one file to file scenario example.

System Requirement

Create Product, Software Component, three Technical systems and three Business systems in SLD.

Maintain Integration Repository

1. In Integration repository create two Data types as follows.

The first screenshot shows the configuration for the data type **DT_NameDet_Request**. It is a **Complex Type** with two elements: **Name1** and **Name2**, both of type `xsd:string` and occurring once.

Structure	Category	Type	Occurrence	Details	Default	Description
DT_NameDet_Request	Complex Type					
Name1	Element	xsd:string	1			
Name2	Element	xsd:string	1			

The second screenshot shows the configuration for the data type **DT_NameDet_Response**. It is a **Complex Type** with one element: **Response**, of type `xsd:string` and occurring once.

Structure	Category	Type	Occurrence	Details	Default	Description
DT_NameDet_Response	Complex Type					
Response	Element	xsd:string	1			

2. Create corresponding two Message types.

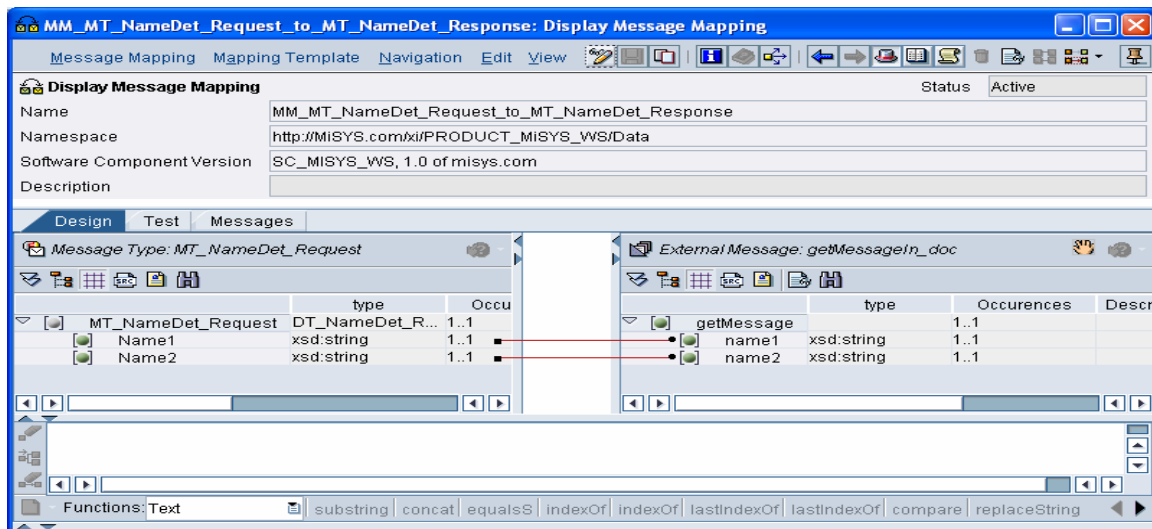
3. Create External Definition. Import the wsdl file of the Web Service.

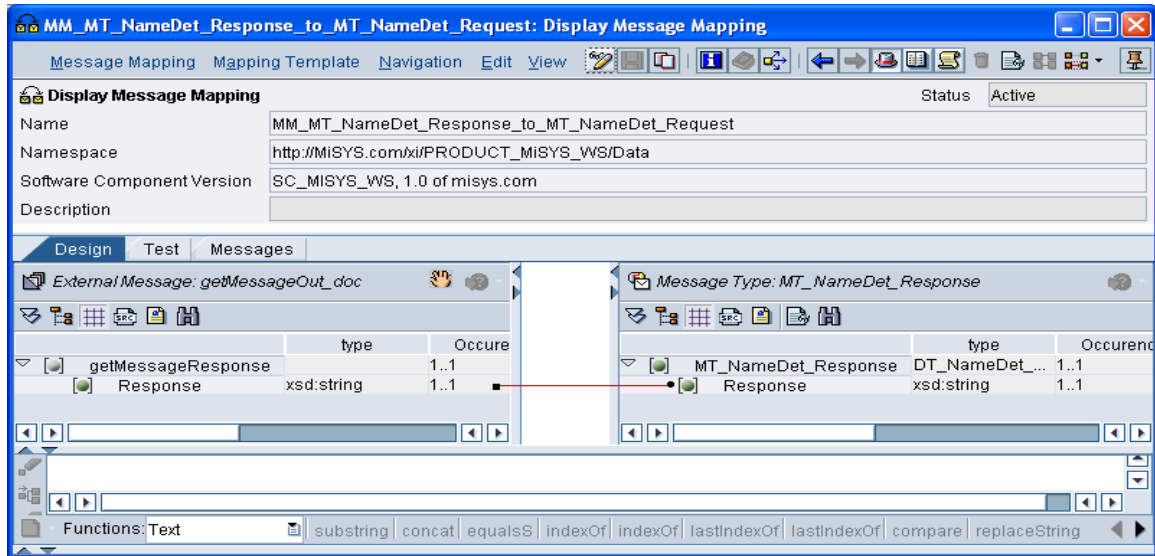
4. Create Six Message Interfaces as follows.

Name	Attributes		Message Types		
	Category	Mode	Output Message	Input Message	Message
MI_NameDet_Async_IN	Outbound	Async	MT_NameDet_Request		
MI_NameDet_Async_Abs	Abstract	Async			MT_NameDet_Request
MI_NameDet_Async_OUT	Inbound	Async		MT_NameDet_Response	
MI_NameDet_Async_OUT_Abs	Abstract	Async			MT_NameDet_Response
MI_NameDet_Sync_AI	Abstract	Sync	MT_NameDet_Request	MT_NameDet_Response	
MI_NameDet_Sync_AI1	Inbound	Sync	getMessageOut_doc	getMessageIn_doc	

5. After Creating Message Interfaces create two Message Mappings as follows.

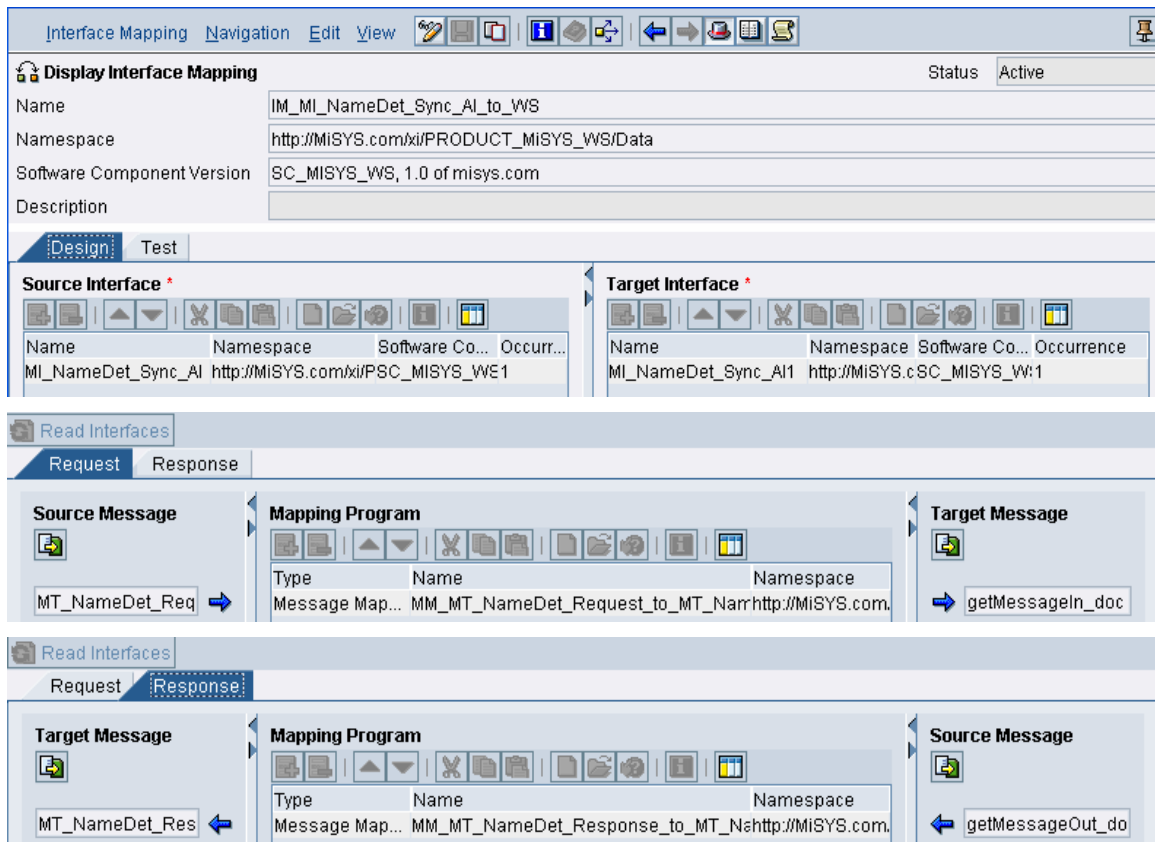
- MM_MT_NameDet_Request_to_MT_NameDet_Response
- MM_MT_NameDet_Response_to_MT_NameDet_Request





6. After that create Interface Mapping as follows.

- IM_MI_NameDet_Sync_AI_to_WS



7. Create Integration Process.

The screenshot displays the SAP Business Process Manager (BPM) interface. At the top, a process diagram shows a flow from a 'start' node to a 'Re...' (Receive) node, followed by two 'Se...' (Send) nodes, and finally a 'stop' node. Red arrows point from the 'Re...' and 'Se...' nodes to their respective properties panels below.

Properties Panel 1 (Receive1):

Name	Value
Step Name	Receive1
Message	Request
Start Process	<input checked="" type="checkbox"/>
Mode	Asynchronous
Activate Correlations	

Properties Panel 2 (Send1):

Name	Value
Step Name	Send1
Mode	Synchronous
Synchronous Interface	MI_NameDet_Sync_AI
Request Message	Request
Response Message	Response
Receiver From	Send Context
Send Context	
Exceptions	
System Error	
Activate Correlations	

Properties Panel 3 (Send2):

Name	Value
Step Name	Send2
Mode	Asynchronous
Message	Response
Acknowledgment	None
Receiver From	Send Context
Send Context	
Exceptions	
System Error	
Activate Correlation	

Container View:

Name	Category	Type	Multiline	Container
Request	Abstract Interface	MI_NameDet_Async_Abs	<input type="checkbox"/>	Process
Response	Abstract Interface	MI_NameDet_Async_OUT_Abs	<input type="checkbox"/>	Process

Maintain Integration Directory

1. In the Integration Directory Create Configuration Scenario, Then create three communication channels, one for sending the xml file to the BPM, one for sending the request to Web Service from BPM and one for sending the response as xml file to the desired location.
2. Import the Integration Process from the Integration repository.
3. Create three Receiver Determination, one for Seder Business service to Integration Process and other two for Integration Process to two Receiver Business Services.
4. Create three corresponding Interface Determinations.
5. Create one sender agreement.
6. Create two receiver agreements.

Activate all and test the scenario.

Related Content

- [Information on Web Service](#)
- [File to File Scenario](#)
- [Information on BPM](#)

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