



Leading the **Integration** Revolution

Your business problems have changed.
Why hasn't your integration solution?



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Use Case: Handling data errors in the orchestration

Use Case highlights

In this process flow

- Check for any errors in the incoming data
- Route errors to an email notification or work flows or sub flows

Design methodology

Design

Design a high level process flow

Configure

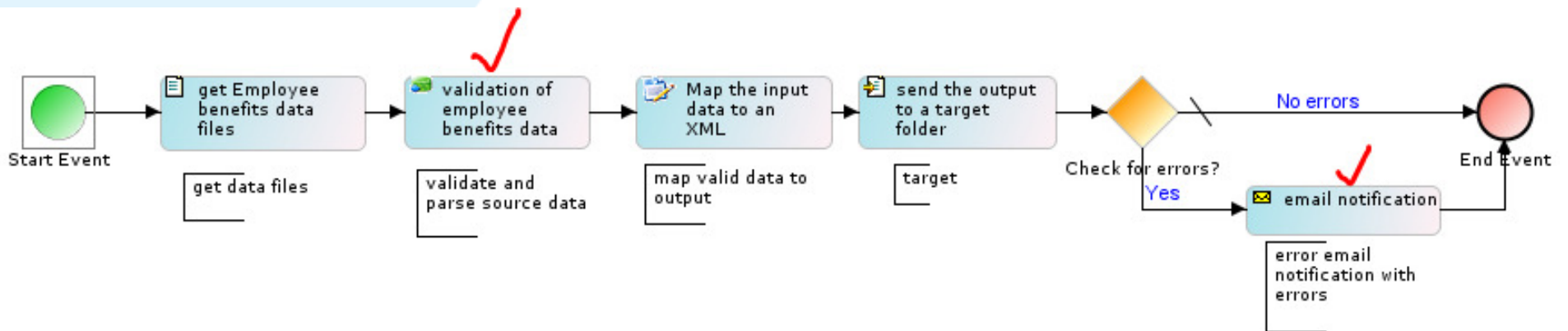
Configure all the activities in the process flow

Deploy

Attach to Event

Design: Process Flow

Please refer to the Use Case video describing how to build this process flow



Configure – Source and Target

Services > Source > File ✓

Delete + Create New Quick Search

<input type="checkbox"/>	Name	Description	Owner	Project Name	Modified ▾
<input type="checkbox"/>	UseCase_EmployeeBenefits_Source	source data location	demouser	UseCase_ErrorHandling	12/21/13 18...

Services > Target > File ✓

Delete + Create New Quick Search

<input type="checkbox"/>	Name	Description	Owner	Project Name	Modified ▾
<input type="checkbox"/>	UseCase_ValidBenefits	output location	demouser	UseCase_ErrorHandling	12/21/13 18...

Services > Target > Mail ✓

Delete + Create New Quick

<input type="checkbox"/>	Name	Description	Owner	Project Name
<input type="checkbox"/>	UseCase_ErrorEmail	send errors in email attachment	demouser	UseCase_ErrorHandling

Configure – Source and Target Schemas

Edit Excel Schema: UseCase_BenefitsValidation

Name* UseCase_BenefitsValidation

Description* validation and parsing schema

Data Header Present

Definition Mode* Import Definition File Enter the Fields Sequentially

Definition File Data

Sheet Name* Main

#	Field Name	Type	Format	Sub Format	Data Mode
1	EmpFirstName	string	mmddyyyy	hh:mm:ss	Plain Text
2	EmpLastName	string	mmddyyyy	hh:mm:ss	Plain Text
3	EmpMiddleInitial	string	mmddyyyy	hh:mm:ss	Plain Text
4	EmpSSN	string	mmddyyyy	hh:mm:ss	Plain Text
5	EmpGender	string	mmddyyyy	hh:mm:ss	Plain Text

Number of Rows 1 at Position 16

Services > Schema > Excel

Name* UseCase_Benefits_Schema

Description* XML schema

Validate XML

Definition Mode* Import File Web Service Consumer Web Service Provider Web Form

File References None

File Path

Services > Schema > XML

Configure – Mapping

Services > Data Transformation > Data Mapping

The screenshot displays the Data Mapper interface with the following components:

- Source Schema (Structure_of_source_XSD):**
 - Root (EmployeeBenefitsExcelSchema)
 - Record (M)
 - recordNumber
 - EmpFirstName (string) (M)
 - EmpLastName (string) (M)
 - EmpMiddleInitial (string) (M)
 - EmpSSN (string) (M)
 - EmpGender (string) (M)
 - EmpAddr1 (string) (M)
 - EmpAddr2 (string) (M)
 - EmpCity (string) (M)
 - EmpState (string) (M)
 - EmpZipCode (string) (M)
 - EmpDOB (date) (M)
 - Occupation (string) (M)
 - ElectionCode (string) (M)
 - OrgID (string) (M)
- Destination Schema (Structure_of_destination_XSD):**
 - Root (String) (EmployeeBenefitXMLSchema)
 - Record (String) (M)
 - SSN (String) (M)
 - firstName (String) (M)
 - middleNames (String) (M)
 - lastName (String) (M)
 - addrLine1 (String) (M)
 - addrLine2 (String) (M)
 - addrLine3 (String)
 - city (String) (M)
 - region (String) (M)
 - postalCode (String) (M)
 - countryCode (String)
 - homeTelephone (String)
 - workTelephone (String)
 - faxNumber (String)
 - maritalStatus (String)
- Mapping:** A central area shows blue lines connecting source elements to target elements. A red line connects the source Root to the destination Root.
- Preview:**
 - Source:** A table with columns EmpFirstName, EmpLastName, and EmpMiddleInitial. Data rows include Karima Johnson, Michael Jones, Don Maddock, Stephen Mitchell, Jon Wollam, Timothy Ayres, Sarah Clark, Dawn Dotson, and Catherine Mitchell.
 - Target:** A tree view showing the destination schema structure: Root > Record > SSN, firstName, middleNames, lastName, addrLine1, addrLine2.

Configure – Attach activities to process flow

Select and drag the activities from Repository View and attach it to activities.

The screenshot displays the Process Designer interface for a process named 'Benefits_Data_process'. The main workspace shows a process flow starting with a 'Start Event' (green circle), followed by four task activities: 'get Employee benefits data files' (with sub-label 'get data files'), 'validation of employee benefits data' (with sub-label 'validate and parse source data'), 'Map the input data to an XML' (with sub-label 'map valid data to output'), and 'send the output to a target folder' (with sub-label 'target'). This is followed by a decision diamond labeled 'Check for errors?'. The 'No errors' path leads to an 'End Event' (red circle). The 'Yes' path leads to an 'email notification' activity (with sub-label 'error email notification with errors').

The left-hand 'Repository View' shows a tree structure of activity categories. Under the 'Mail' category, the 'UseCase_ErrorEmail' activity is highlighted in blue, indicating it is the selected activity to be attached to the process flow.

At the bottom, the 'Properties' panel is visible, showing a table with the following content:

Name	Value
Label	Start Event

Configure – Multiple stream on activity #2

Double click on second activity and change the Error Records option to Process.
Also right click on the activity > Multiple Stream and create two stream names.

1. Add stream 'data'
2. Add stream 'error'
3. Map both streams to their related consuming activities. Data stream should go to mapping.
4. Error stream should go to email target. For the error stream also check the Error Stream checkbox.

The screenshot displays a process flow diagram with two activities: 'get Employee benefits data files' and 'validation of employee benefits data'. The second activity is highlighted with a red checkmark. The 'Multiple Stream Dialog' is open, showing stream names 'data' and 'error', and their mapping to activities. The 'Properties' window at the bottom shows the 'Error Records' property set to 'Process'.

Multiple Stream Dialog

Stream Name Entry
Stream name : Add Stream

Stream And Activity Mapping
Streams: data
Activities: UseCase_Emplo... Map

Stream Information Table

Stream Name	Error Stream	Stream Consumer ...	Explicit Stream
error	<input checked="" type="checkbox"/>	UseCase_ErrorEmail	<input type="checkbox"/>
data	<input type="checkbox"/>	UseCase_Benefits_...	<input type="checkbox"/>

Properties

Name	Value
Activity Maximum Retries on Failure	
Activity Wait Time(in seconds) between Retries	
Character Set Encoding	ISO-8859-1
dataAction	No Action
Error Records	Process
File Type	Excel 97-2003 Workbook (*.xls)

Configure – Gateway rule

Double click on arrow, go to 'Edit condition' and use expression condition option.

The screenshot displays the 'Rule Information' dialog box and a BPMN diagram. The dialog box is configured as follows:

- Rule Name: ErrorRule
- Rule Reason: new
- Existing Activities: UseCase_BenefitsValidation ✓
- Activity Attribute/Variable: ErrorOperationCount ✓
- Operand Type: Text
- Operator: Not Equal ✓
- Value: (empty)
- Operator to build Expression: &&
- Expression: `! ($Service.UseCase_BenefitsValidation.ErrorOperationCount$.equals (""))`

The BPMN diagram shows a gateway event 'Check for errors?' with two outgoing paths:

- 'No errors' path leading to an 'End Event'.
- 'Yes' path leading to an 'email notification' activity, which is annotated with 'error email notification with errors'.

The 'Edit Condition' button in the diagram is highlighted with a blue arrow pointing to the 'Edit Condition' button in the dialog box. The 'Done' button in the dialog box is also highlighted with a red checkmark.

Deploy – File Event

Right click on the process flow located under Develop > Process > Process Flow and create and register File Event to the process flow.

Edit File Event: Benefits_trigger

Name*	Benefits_trigger
Description*	new trigger to process data
Trigger Type*	On FileExists <input type="button" value="v"/>
Check for File Modification	<input type="checkbox"/>
File Include Criteria*	*benefit*.xls
File Exclude Criteria	
File Base Location*	c:\input

Project: View and manage activities for this use case

Home | Develop | Monitor | Administer

Projects | Solutions | Process | Services | Events | Web Forms | Reports and Dashboards

Projects

List of activities included in project "UseCase_ErrorHandling" ✓

Back | Move | Refresh | Quit

<input type="checkbox"/>	Name	Description	Owner	Modified
Data Mapping (1)				
<input type="checkbox"/>	UseCase_Benefits_data_map	data map	demouser	12/21/13 18:43
Event Registry (1)				
<input type="checkbox"/>	BenefitsFileEvent	trigger setup	demouser	12/21/13 18:58
Excel Schema (1)				
<input type="checkbox"/>	UseCase_BenefitsValidation	validation and parsing schema	demouser	12/21/13 19:07
File Event (1)				
<input type="checkbox"/>	Benefits_trigger	new trigger to process data	demouser	12/21/13 18:58
File Source (1)				
<input type="checkbox"/>	UseCase_EmployeeBenefits_Source	source data location	demouser	12/21/13 18:34
File Target (1)				
<input type="checkbox"/>	UseCase_ValidBenefits	output location	demouser	12/21/13 18:44
Mail Target (1)				

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Thank You!



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