How To...
Master Data Governance for Material: BADI
USMD_SSW_PARA_RESULT_HANDLER to merge result of parallel workflow tasks

Applicable Releases:
EhP5, EhP6, MDG6.1, MDG7.0

Version 1.3
March 2014
<table>
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<th>Document Version</th>
<th>Description</th>
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<tbody>
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<td>1.00</td>
<td>First official release of this guide</td>
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<tr>
<td>1.10</td>
<td>Additional SAP Notes</td>
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<td>1.20</td>
<td>Additional Information on Chapter 4.2.2</td>
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<td>1.30</td>
<td>Small corrections</td>
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## Typographic Conventions

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<tr>
<td><em>Example text</em></td>
<td>Emphasized words or phrases in body text, graphic titles, and table titles</td>
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<tr>
<td><em>Example text</em></td>
<td>File and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.</td>
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<tr>
<td><em>Example text</em></td>
<td>User entry texts. These are words or characters that you enter in the system exactly as they appear in the documentation.</td>
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<tr>
<td><em>&lt;Example text&gt;</em></td>
<td>Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.</td>
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<tr>
<td><em>EXAMPLE TEXT</em></td>
<td>Keys on the keyboard, for example, F2 or ENTER.</td>
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## Icons

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<td>Example</td>
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<tr>
<td>📦</td>
<td>Recommendation or Tip</td>
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1. Business Scenario

SAP Master Data Governance for Material (MDG-M) provides business processes to find, create, change, and mark material master data for deletion. It supports the governance of material master data in a central hub and the distribution to connected operational and business intelligence systems. The processes are workflow-driven and can include several approval and revision phases, and the collaboration of all users participating in the master data maintenance.

This scenario addresses the customer requirement to have parallel workflow tasks.
How To... Master Data Governance for Material: BADI USMD_SSW_PARA_RESULT_HANDLER to merge result of parallel workflow task BADI USMD_SSW_PARA_RESULT_HANDLER
2. Background Information

A BAdI is used to merge the result of the parallel workflow tasks.

This Business Add-In (BAdI) is used in the Master Data Governance (CA-MDG) component.

You can use this BAdI to implement the result of a parallel workflow merge in the rule-based workflow. The BAdI uses the method HANDLE_PARALLEL_RESULT to handle and merge the results of the parallel workflows into one result. The input for this BAdI is the change request number, current step number, parallel step action table, and the service name. By using the change request number, it is possible to access all data within this change request.

The input parameter Service Name enables you to use the same BAdI implementation for multiple service names. For example, when two service names are used in the configuration of the same change request workflow, and the user wants to create only one BAdI implementation, having the service name as the input parameter enables you to separate the processing logic based on the service name input. With this BAdI, you can change the workflow generic-context table in the workflow. This BAdI also returns the next workflow step, the action taking place in the workflow step, and the message table.

Requirements
You have defined the filter value Service Name in view V_USMD201C_SSW. You need to create a separate implementation for the handling of a specific parallel result.

Standard settings

For more information about the standard settings (filters, single or multiple uses), see the Enhancement Spot Element Definitions tab in the BAdI Builder (transaction SE18). No default BAdI implementation is preactivated in the standard system. The BAdI is filter-dependent. The BAdI is not designed for multiple uses.

Activities
For information about implementing BAdIs in the context of the Enhancement Concept, see the SAP Library for SAP NetWeaver under BAdIs - Embedding in the Enhancement Framework.

3. Prerequisites

Relevant SAP Notes:
1597746
1700197
1837696
4. Step-by-Step Procedure

4.1 Customizing

4.1.1 Create new CR-Type
4.1.2 Define Service (Cross Client)

Create Services: ZEM_MAT50_PRL_MRG and ZEM_MAT11_SET_ACTION
4.1.3 BRF+ Tables

4.1.3.1 Single Value Decision Table

![Single Value Decision Table](image)

4.1.3.2 User Agent Table

![User Agent Table](image)
4.1.3.3 Non User Agent

4.2 Enhancement Spot: USMD_SSW_SERVICE_PROCESSOR

4.2.1 Create Enhancement Implementation for USMD_SSW_PARA_RESULT_HANDLER

Transaction SE18 for Enhancement Spot

Use Enhancement Spot: USMD_SSW_SERVICE_PROCESSOR

- Then Display – Select BADI DEFINITION > USMD_SSW_PARA_RESULT_HANDLER
- Right click on Implementation, and click on Create BADI Implementation
- Create Enhancement Implementation: ZMDG_BS_MAT_PARALLEL_WF
- Short Text: ZMDG_BS_MAT_PARALLEL_WF

4.2.1.1 Create BAdI Implementation

Badi Implementation: ZMDG_BS_MAT_PARALLEL_WF
Implementing Class: ZL_MDG_BS_MAT_PARALLEL_WF

4.2.1.2 Method

Then double click on method IF_USMD_SSW PARA_RSLT_HANDLER-HANDLE_PARALLEL_RESULT.

For the interface method you can use the default coding from Example Enhancement Implementation MDG_BS_MAT_PARALLEL_WF (Parallel rule-based WF branches) and Implementing Class CL_MDG_BS_MAT_PARALLEL_WF. Save and activate.
4.2.1.3 Create Filter

Save and activate.

4.2.2 Create Enhancement Implementation for USMD_SSW_SYSTEM_METHOD_CALLER

Click on Implementation, right mouse click for creating Enhancement Implementation
Create Enhancement Implementation: ZEM_MAT11_CALL_SYSTEM_METHOD

4.2.2.1 Create BAdI Implementation

BAdI Implementation: ZEM_MAT11_CALL_SYSTEM_METHOD
Implementing Class: ZEM_MAT11_CALL_SYSTEM_METHOD

4.2.2.2 Create Filter

Create filter and set service name= ZEM_MAT11_SET_ACTION.
Save and activate.

4.2.2.3 Method

Then double click on method and enter "DUMMY". Save and activate.

4.2.2.4 Create Filter

Save and activate.
How To... Master Data Governance for Material: BADI USMD_SSW_PARA_RESULT_HANDLER to merge result of parallel workflow task BADI USMD_SSW_PARA_RESULT_HANDLER
4.3 Process

4.3.1 User Menninger

4.3.1.1 Create Material
4.3.1.2 TX SWI6 - Workflows for Object
Press Display WF log and then List with technical details:

4.3.2 User Menninger01

4.3.2.1 Approve User Menninger01
How To... Master Data Governance for Material: BADI USMD_SSW_PARA_RESULT_HANDLER to merge result of parallel workflow task BADI USMD_SSW_PARA_RESULT_HANDLER
4.3.2.2  TX SWI6 - Workflows for Object

Action 03 (Approve) and Step 11 → Still Status 01 (to be considered and approved), next Step 15 (but will never used)
4.3.3 User Menninger02

4.3.3.1 Approve User Menninger02
How To... Master Data Governance for Material: BADI USMD_SSW_PARA_RESULT_HANDLER to merge result of parallel workflow task BADI USMD_SSW_PARA_RESULT_HANDLER

4.3.3.2 TX SWI6 - Workflows for Object

Workflow log (View with technical details)

Steps

End of Fork
MDM Rule-Based Workflow
UNTIL Loop
Loop 1
Loop 2
Loop 3
End of Fork
MDM Rule-Based Workflow
UNTIL Loop
Loop 1
Loop 2
Loop 3

Parallel Step Result Merge
Clear Step-Action Table
Check if the WF is completed

Details
Step History
Deadlines
Task Description
Container
Message

Definition

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<td>CR_RESULT</td>
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Automatic Check if Workflow is completed -> After Menninger02 also approved -> yes, it merges
BAdI Parallel Step Result Merge: Action 03 (Approve) and Step 02
Automatic Dummy Step 02 (Loop2): Step 02 and Action 03 -> Status 02 (Changes to be executed) and Next Step 03

February 2014
4.3.4 User Menninger

4.3.4.1 Approve User Menninger Step 03

User Menninger approved (Step 03 and Action 03):
4.3.5 Activate User Menninger Step 90
User Menninger activates (Step 90 and Action 09)

4.3.6 Background Step 91
Background Step 91 and Action 31: Activation -> next Step 99 (last step) and Status 05: Final Check Approved

4.3.7 Last Step 99
User Menninger; Status 05: Final Check Approved