How-To Guide: Configure Rule-Based Parallel Approval Workflow for SAP Master Data Governance for Article Master

Applies to

Prometheus Group Solutions for MDG RFM

Summary

This How-To guide explains the steps to Create New Change Request (Parallel CR) type and set up a parallel approval workflow.

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Introduction

SAP MDG, Retail and Fashion Management extension for Retail Article by Prometheus Group (MDG-RFM) provides business processes to find, create, change, and mark Article Master data for deletion. It supports the governance Article Master data in a central hub and the distribution connected to 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 based on the different type 4 entities. The high-level scope of this document is to:

1. Create a copy of standard CR type AR01.
2. Define Service.
3. Based on the requirement and type 4 entities that we wish to execute (Approve) in parallel, create the corresponding CR steps.
4. Configure the BRF+ tables.

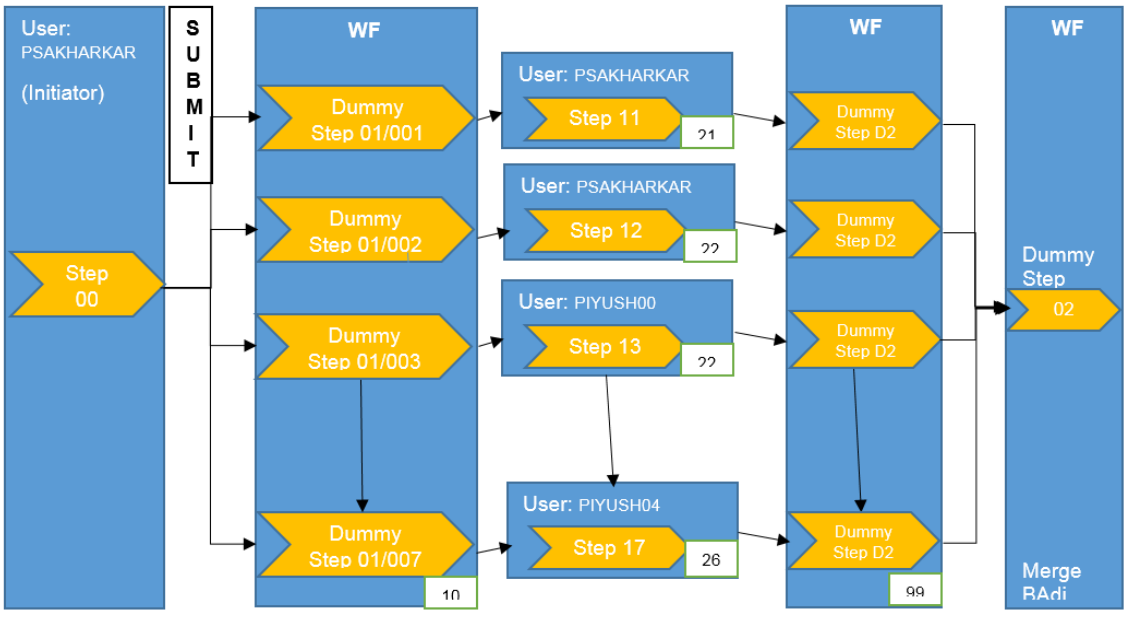
Note: The details of these steps are mentioned in the trailing section

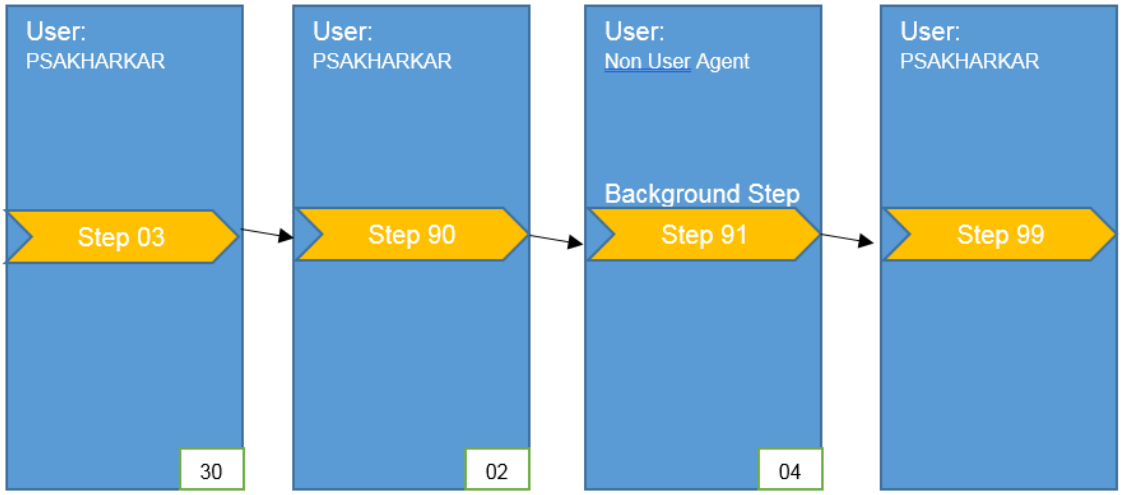
7 parallel tasks are created as an example. The first task is Create always. However, the other 6 branches are created based on the data in the type 4 entities.

The list of the type 4 entities from the Article Master data that we will be considering is as follows:

1.	UNITOFMSR	Unit of Measure for Article
2.	ADDITIONA	Additional
3.	MVKE	Sales Data for Article
4.	MARCDC	Logistics DC
5.	MARCST	Logistics: store
6.	WLK2	Article Master Data SAP Retail / Part POS Control Data

The following diagram explains the parallel workflow functionality (only Submit):





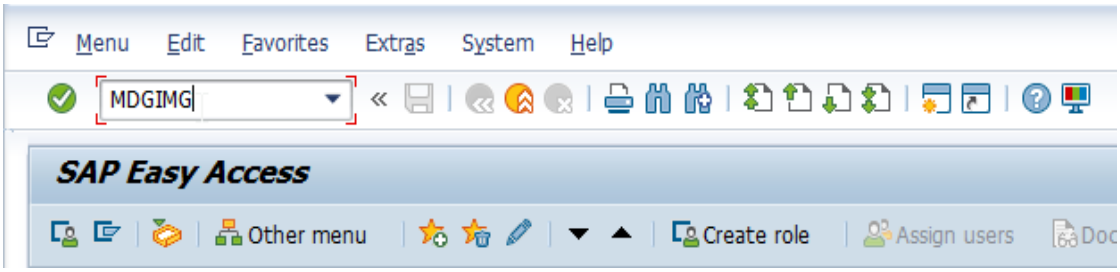
Some general points to note are as follows:

- Activate the BRF+ rule changes at all stages when you make any change.
- While saving the development objects choose appropriate Z or the custom package based on your system.

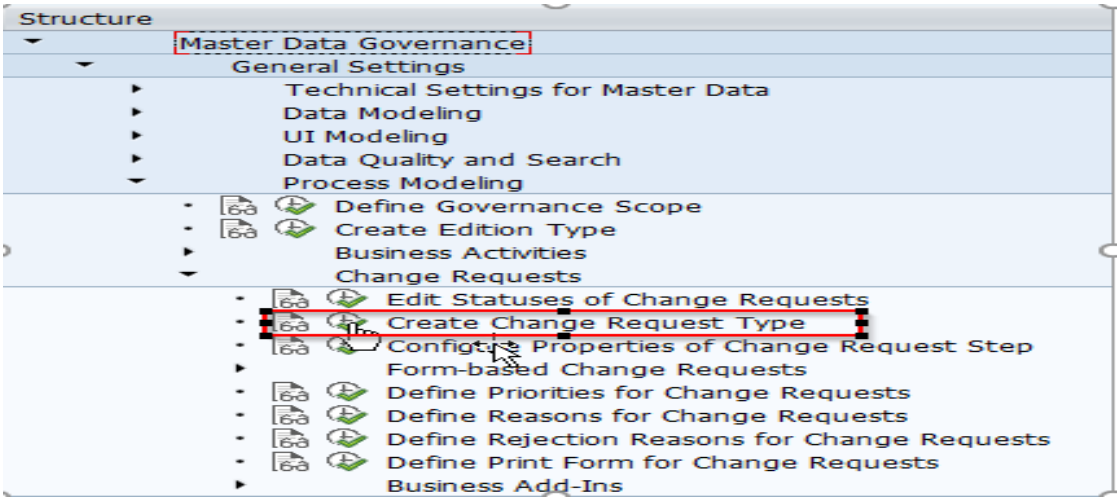
Steps to Create New CR Type and Set Up a Parallel Approval Workflow

Use the following steps to create a new CR type:

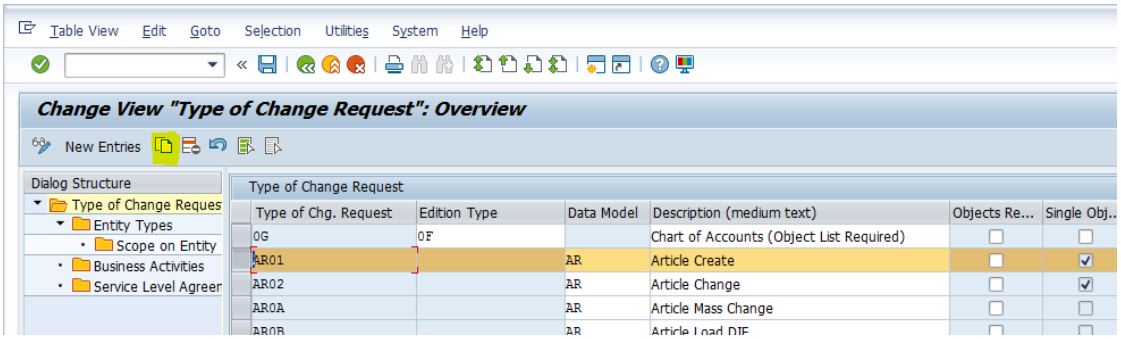
1. Run transaction 'MDGIMG'.



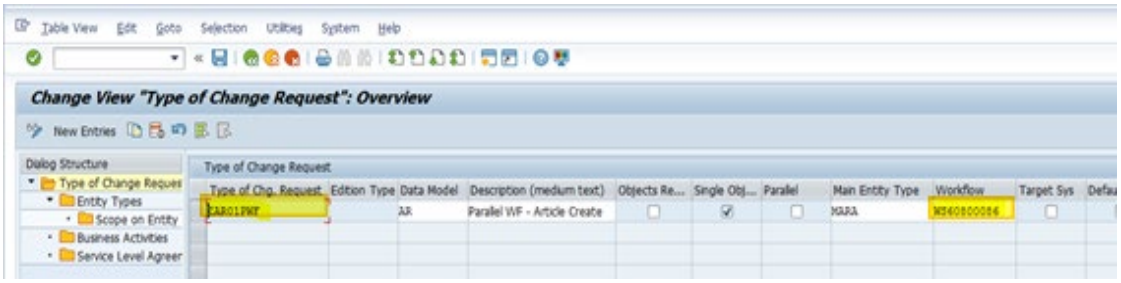
2. Execute 'Create Change Request Type' by accessing the menu path Master Data Governance > General Settings> Process Modeling> Change Requests> Create Change Request Type.



3. Select the Change Request type ‘AR01’ and copy to create CR type “ZAR01PWF”.



4. Enter “ZAR01PWF” as the type of new Change Request and click Enter. Select the option Parallel CR and populate the Workflow field with WS60800086

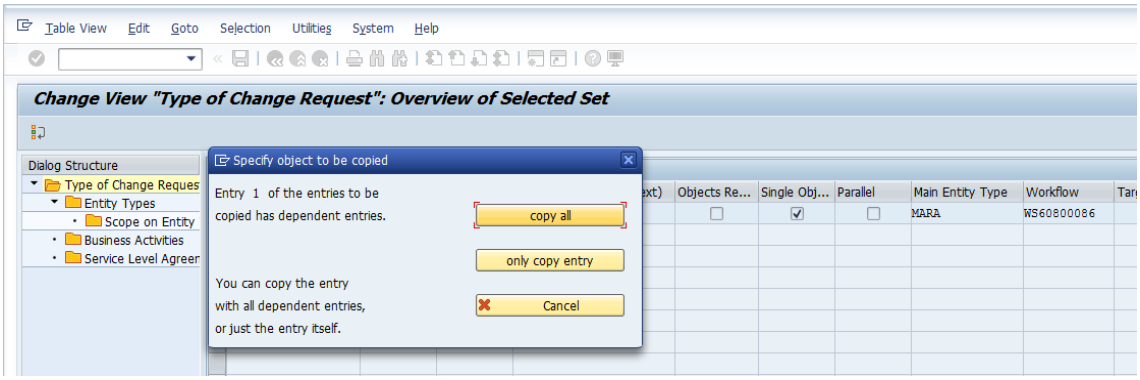


A pop-up window is displayed.

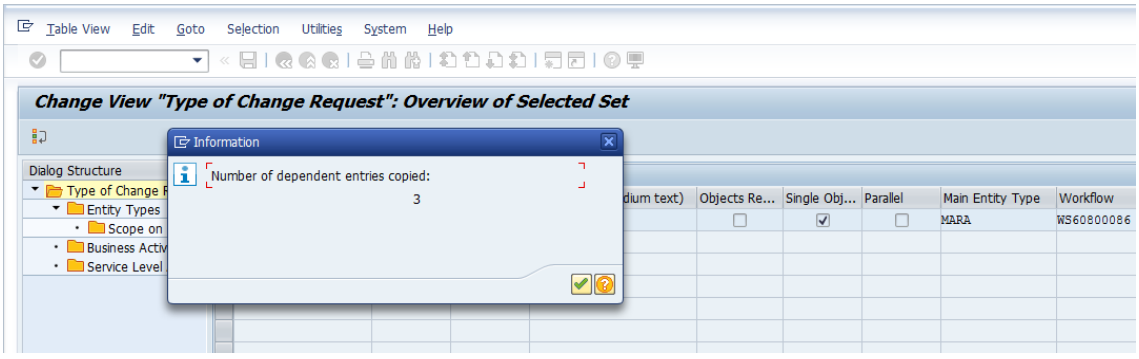
Note

Workflow template WS60800086 is assigned to the newly created Change Request type which is designed to work only with Business Rule Framework (BRF+) and handles Serial approval of technical objects within MOCR.

5. Select ‘copy all’ button in the pop-up window.



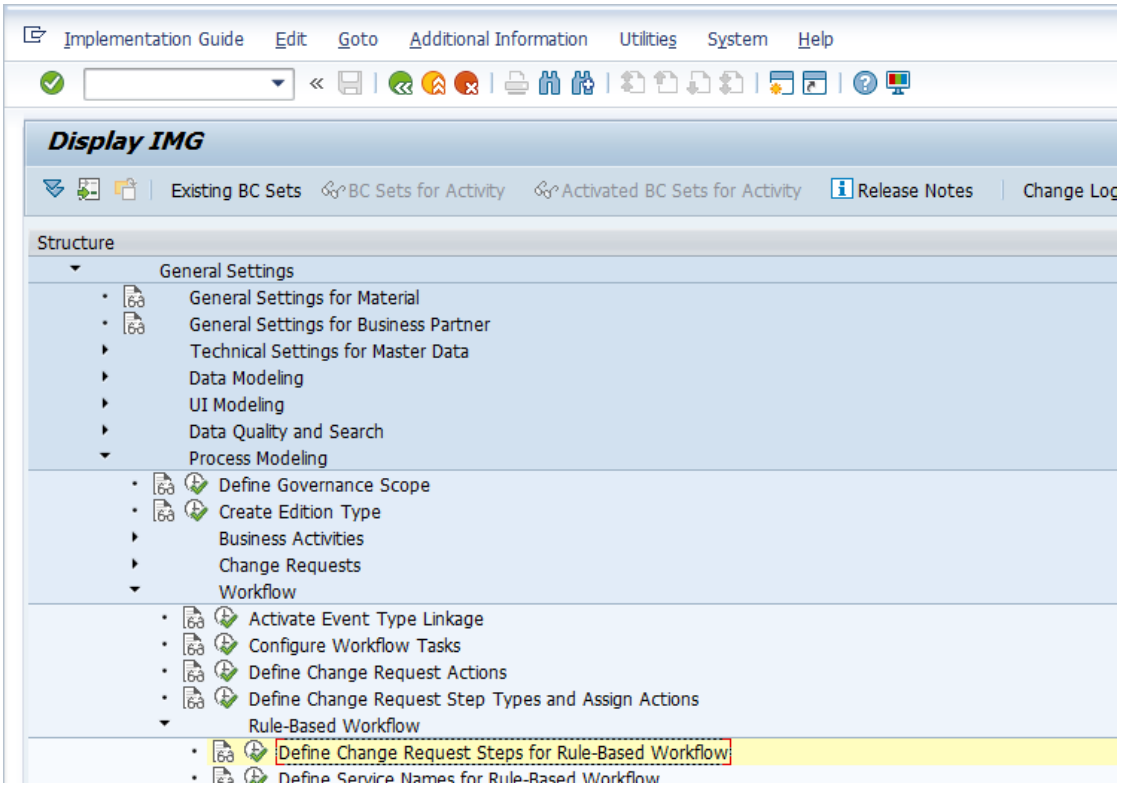
The following screen is displayed where the number of dependent entries copied are displayed.

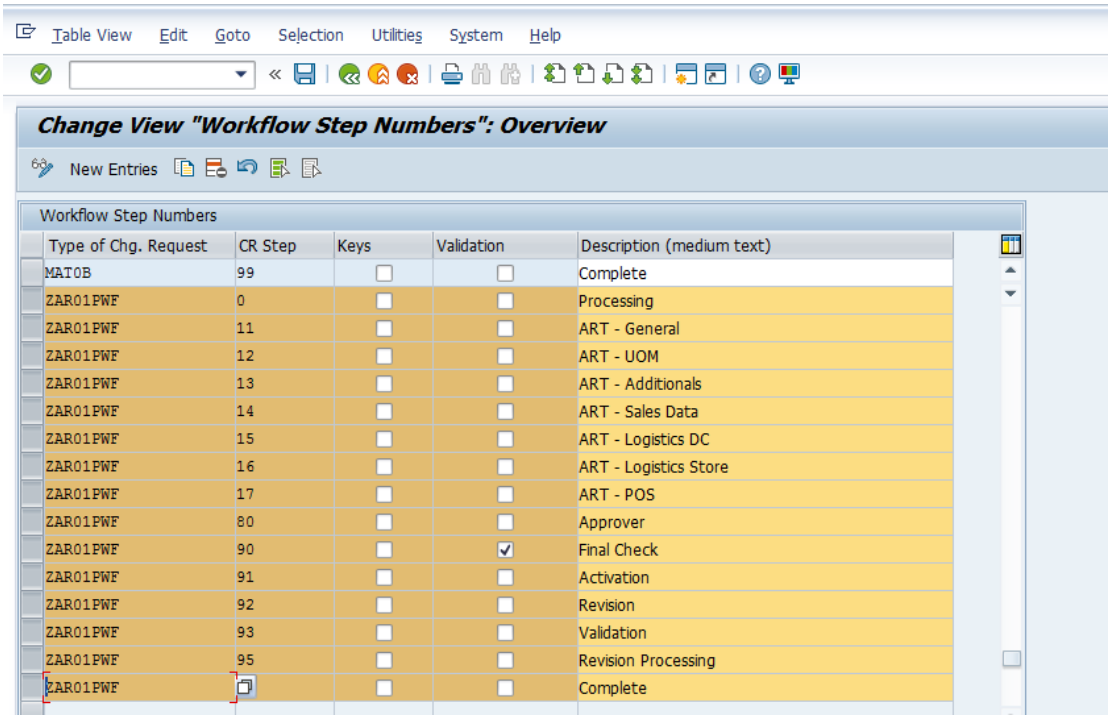


6. Select  to continue.
7. Enter the Customizing request and save the changes.

Define Change Request Steps for Rule-Based Workflow

1. Go to “Define Change Request Steps for Rule-Based Workflow” and create the following steps.

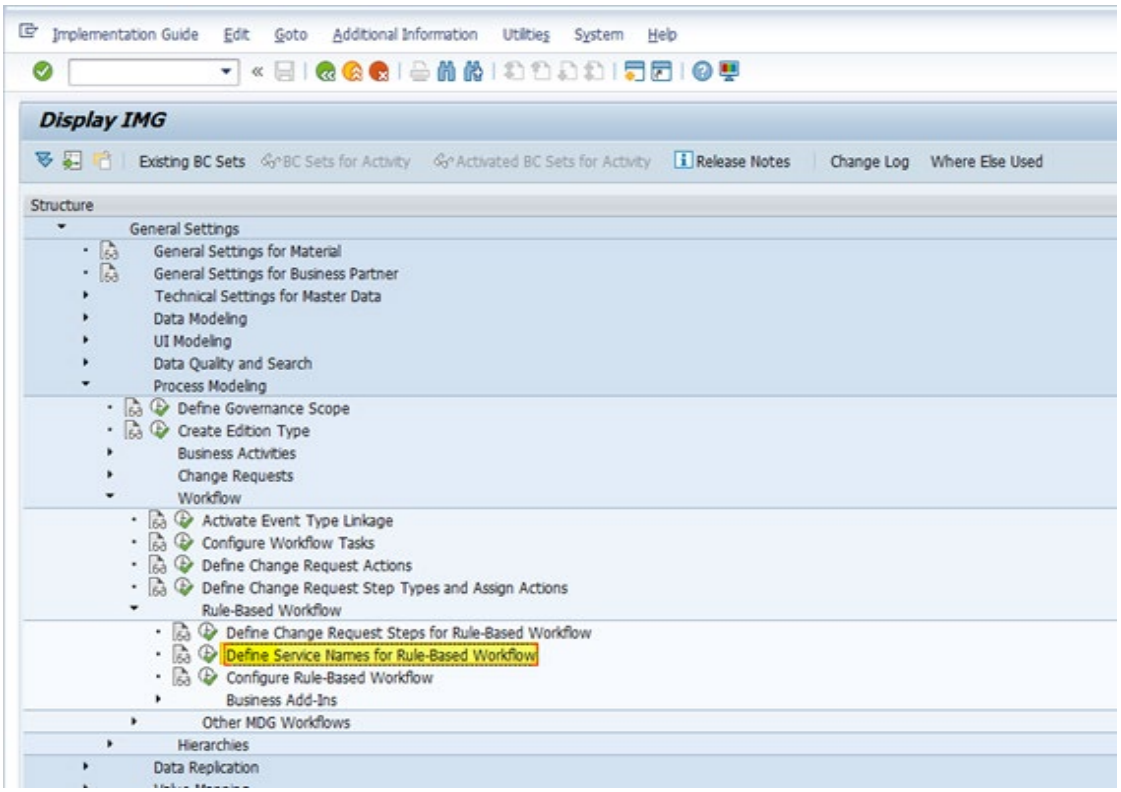




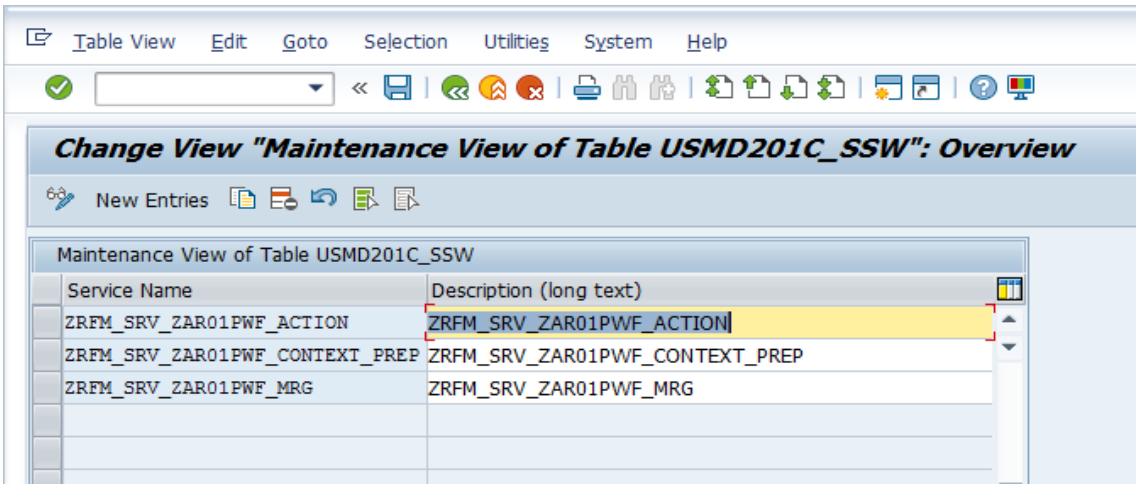
Type of Chg. Request	CR Step	Keys	Validation	Description (medium text)
MAT0B	99	☐	☐	Complete
ZAR01PWF	0	☐	☐	Processing
ZAR01PWF	11	☐	☐	ART - General
ZAR01PWF	12	☐	☐	ART - UOM
ZAR01PWF	13	☐	☐	ART - Additionals
ZAR01PWF	14	☐	☐	ART - Sales Data
ZAR01PWF	15	☐	☐	ART - Logistics DC
ZAR01PWF	16	☐	☐	ART - Logistics Store
ZAR01PWF	17	☐	☐	ART - POS
ZAR01PWF	80	☐	☐	Approver
ZAR01PWF	90	☐	☑	Final Check
ZAR01PWF	91	☐	☐	Activation
ZAR01PWF	92	☐	☐	Revision
ZAR01PWF	93	☐	☐	Validation
ZAR01PWF	95	☐	☐	Revision Processing
ZAR01PWF		☐	☐	Complete

Define Services

1. Define Service. (Required during the implementation of the BAdIs).

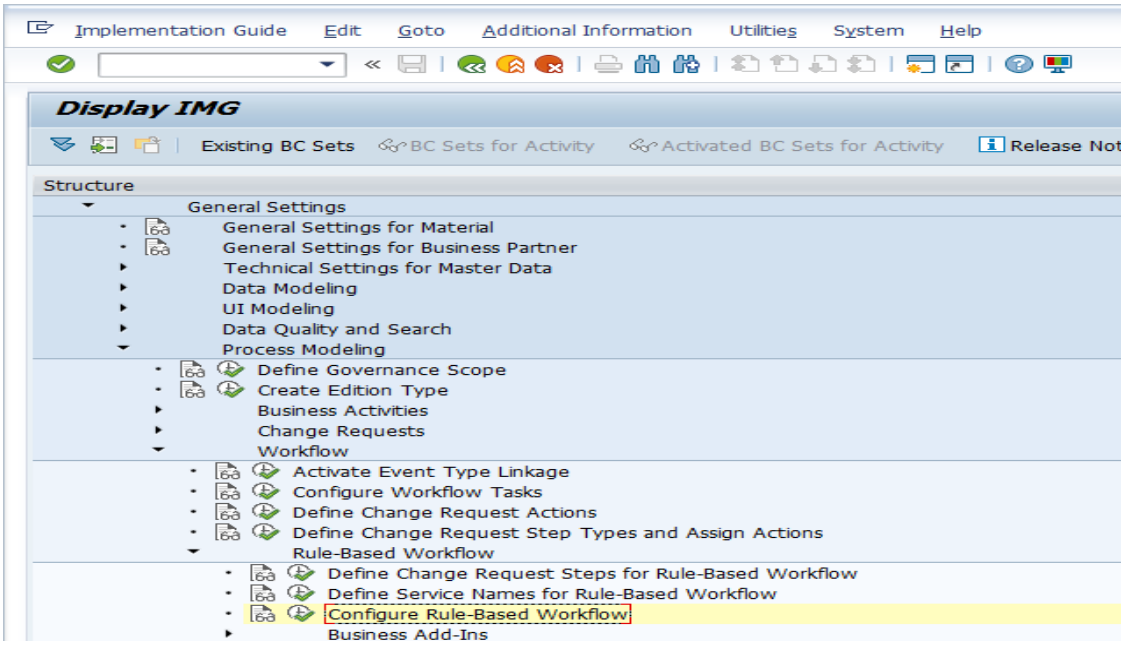


2. Define the following services.

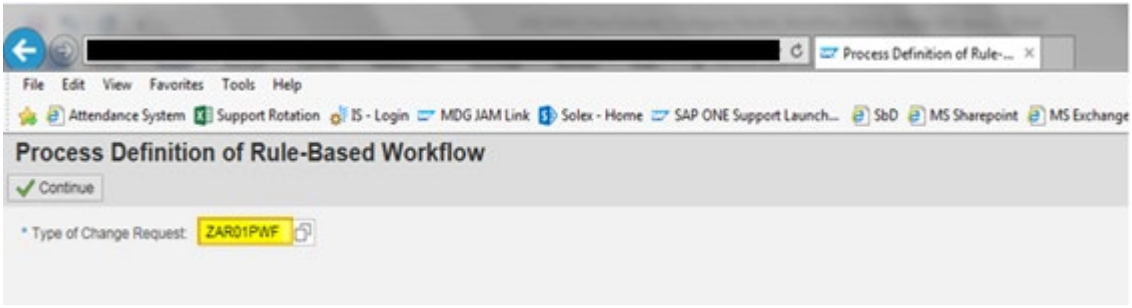


Configure Rule-Based Workflow

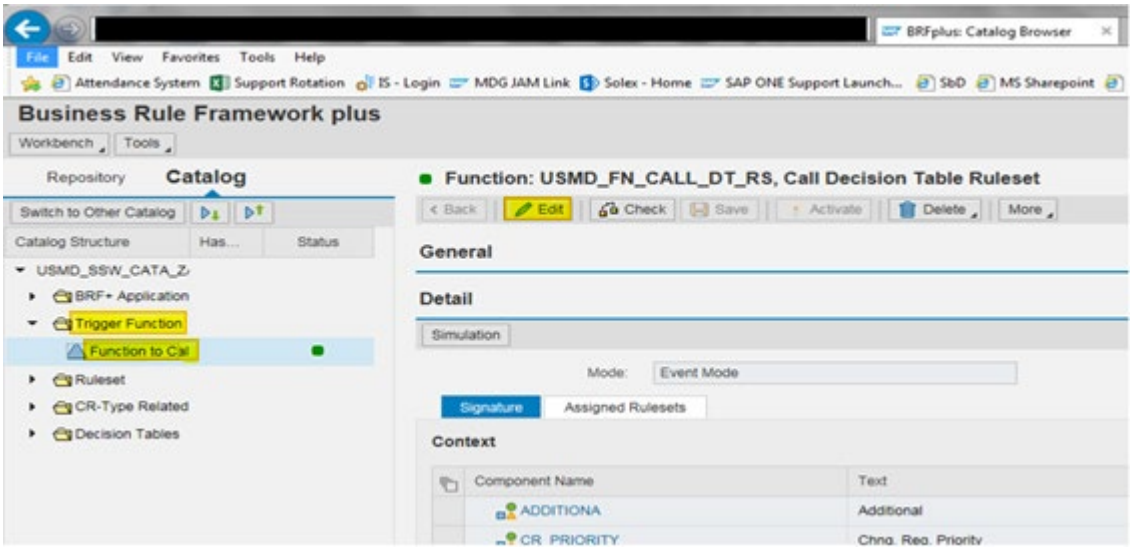
1. In the MDGIMG, go to “Configure Rule-Based Workflow”.



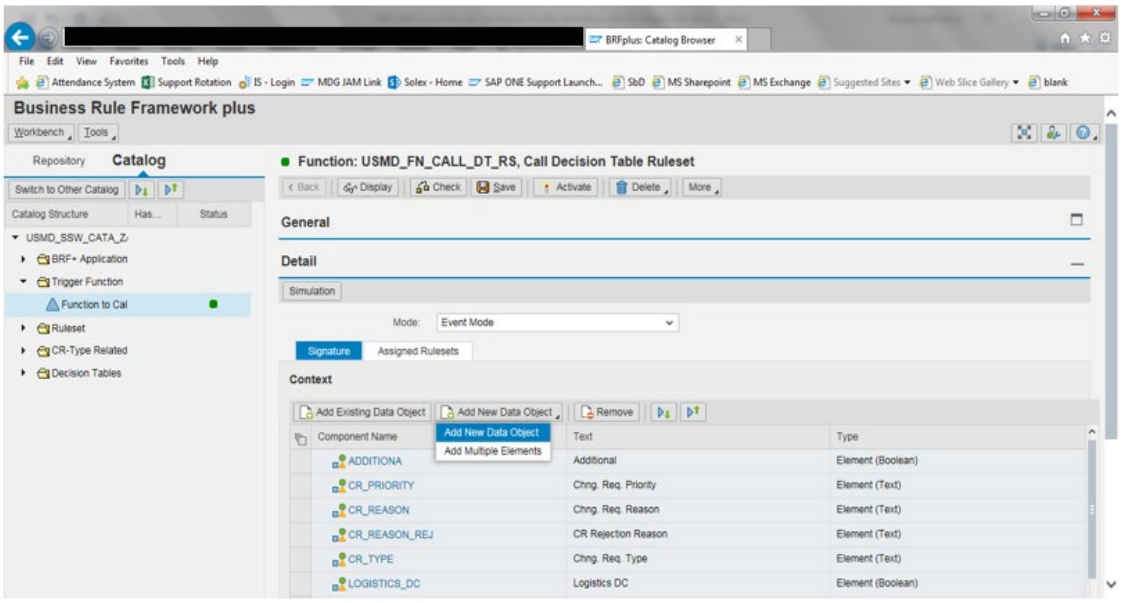
The following screen is displayed:



2. Enter the newly created CR type and press Continue.
3. On the next screen, choose “Trigger Function”. Go to Edit mode.

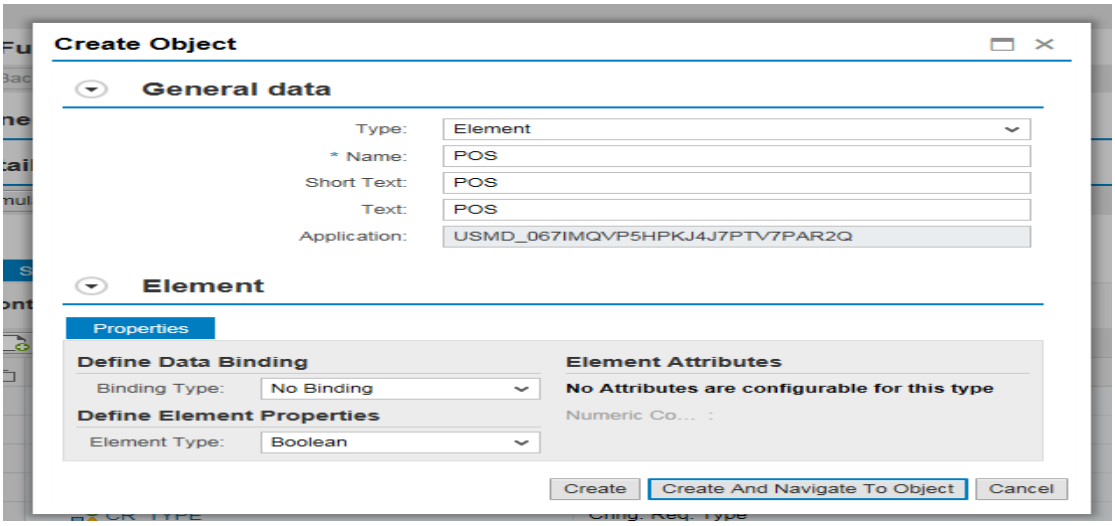


4. In Edit mode add, Data Objects.

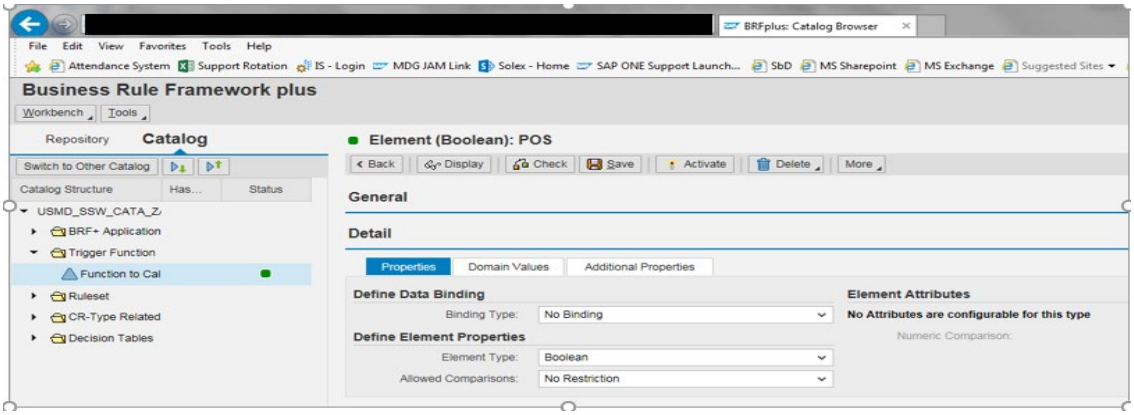


It is required to add one Data Object of “Boolean” type for each type 4 entity. This Data Object acts as a flag, based on which we will create a parallel branch.

If the data exists in the type 4 entity, the corresponding flag will be set as “ABAP_TRUE”.Create all the flags as mentioned in the trailing screens.

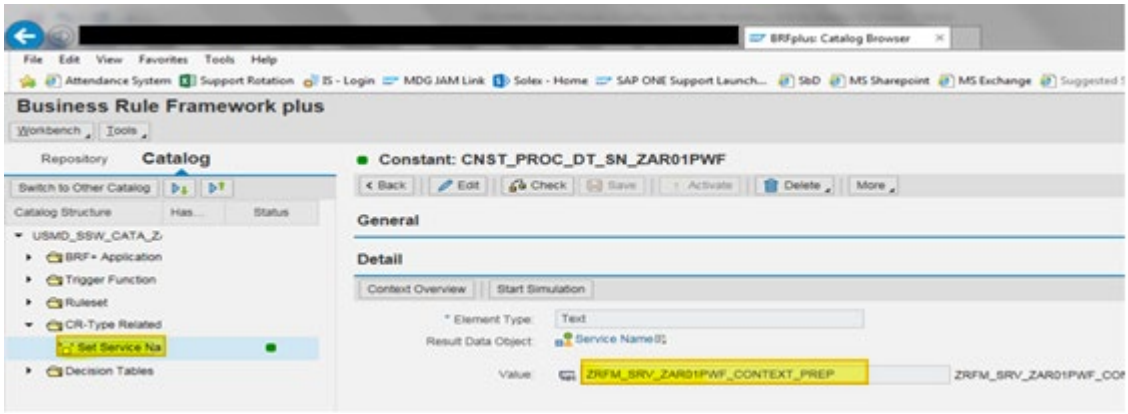


Make sure you maintain the following properties for all the flags.

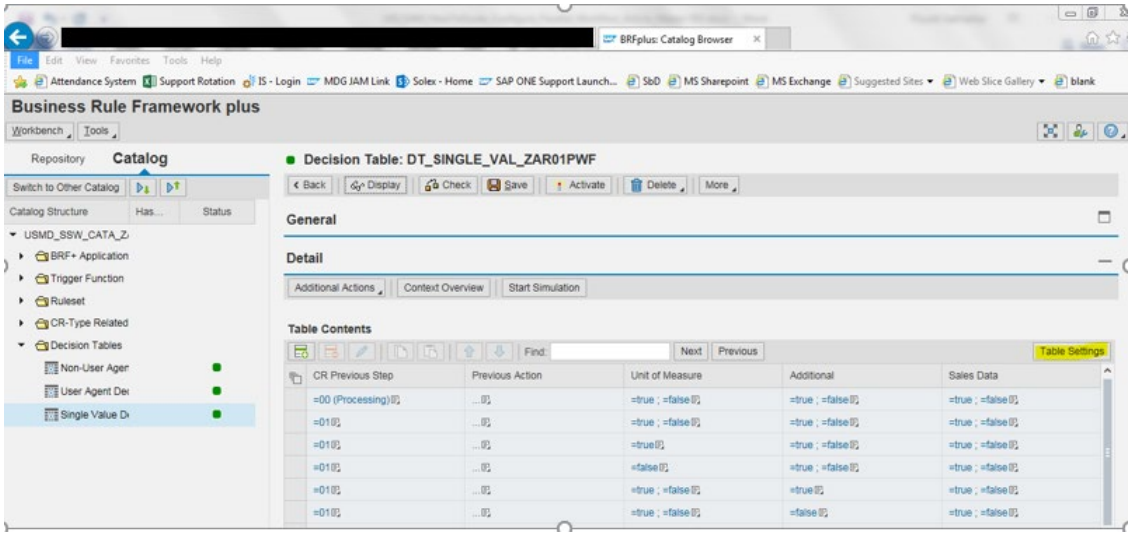


The values of these flags will be set in “USMD_SSW_RULE_CONTEXT_PREPARE”. (Details are mentioned in the following sections).

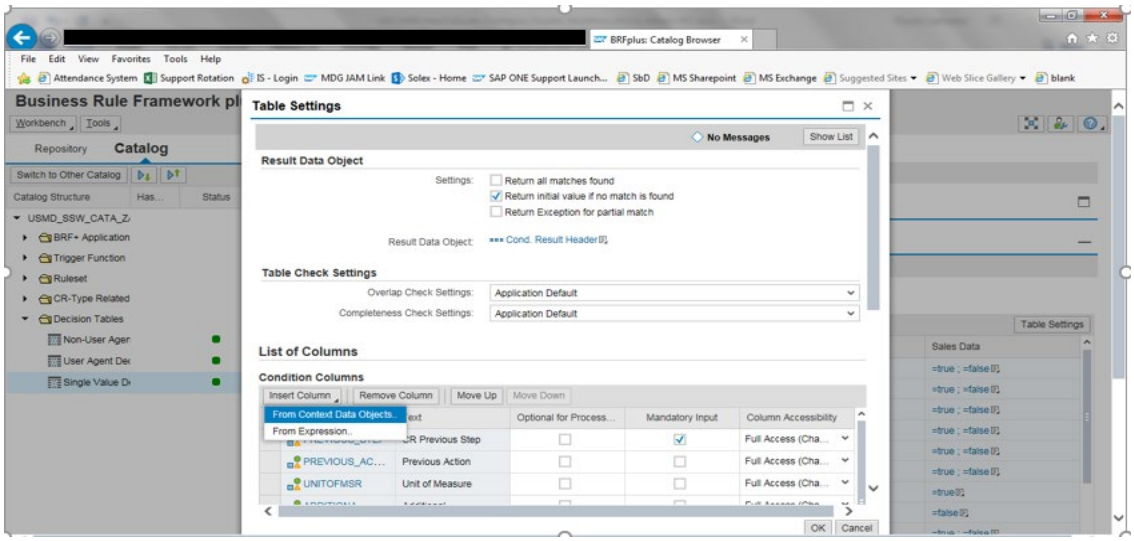
5. Mention the name of the service that we create for “context preparation” here.



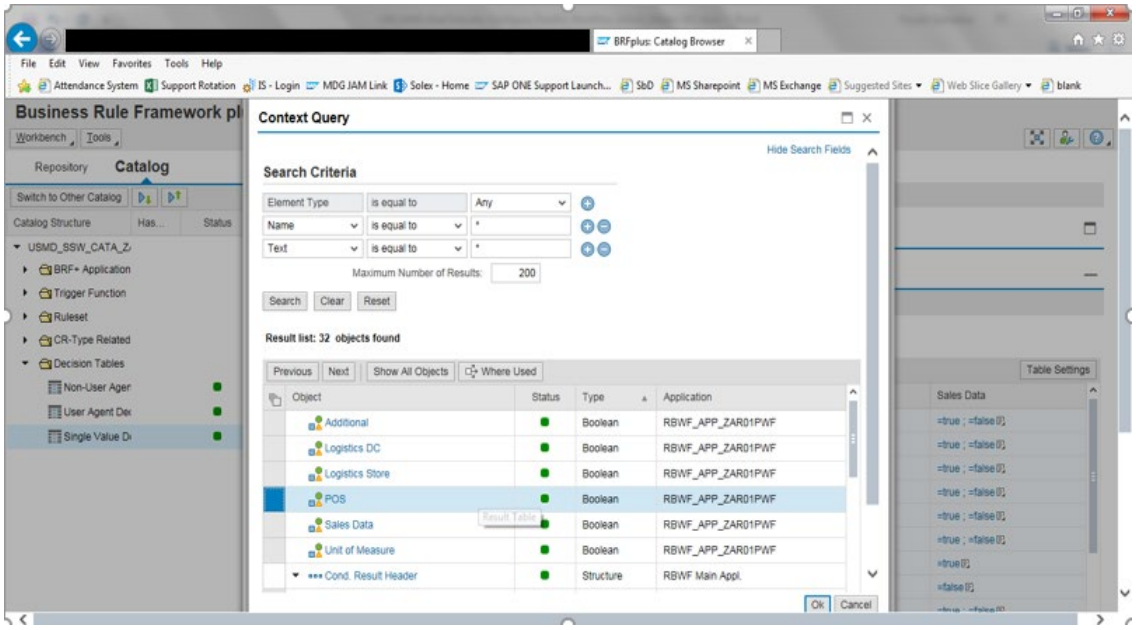
6. Navigate to the “Single value decision table” in edit mode.
Go to table settings shown in the screens.



7. On the next screen, select “Insert Column” > “From Context Data Object”.



8. On the following screen, find the new Boolean Data Objects that is created and add them to the output.



The flags that are added for the exercise are:

- Unit of Measure
- Additional
- Sales Data
- Logistics DC
- Logistics Store
- POS

9. Once all the Data Objects are added, fill the BRF+ decision table.

You can directly import the Excel files attached below.

- Single Value Decision Table.

DT_SINGLE_VAL_ZAR01PWF.xlsx

- User Agent Table

DT_USER_AGT_GRP_ZAR01PWF.xlsx

Note

The User agent type and User agent value can be set as per requirement. For example, Organization Unit position or a security role as the recipient has been used.

The SAP user IDs are used in this example.

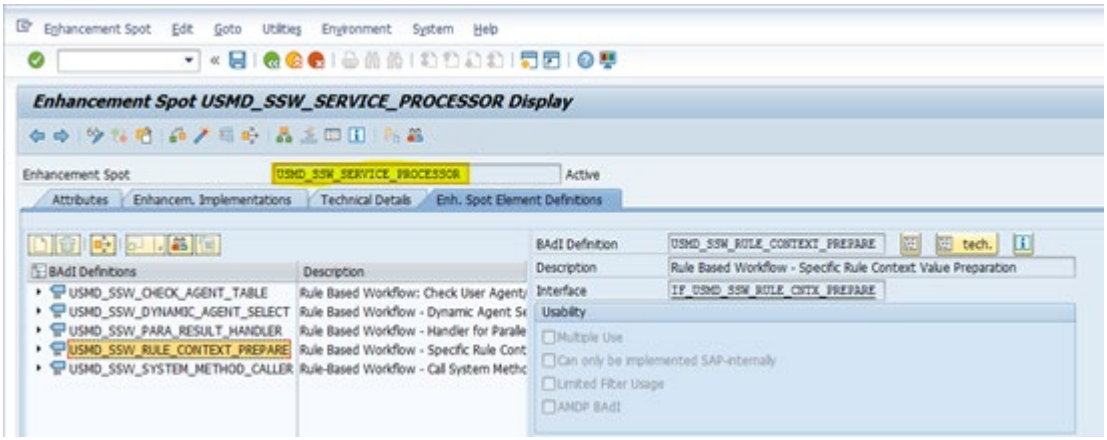
- Non- User Agent

DT_NON_USER_AGT_GRP_ZAR01PWF.xls

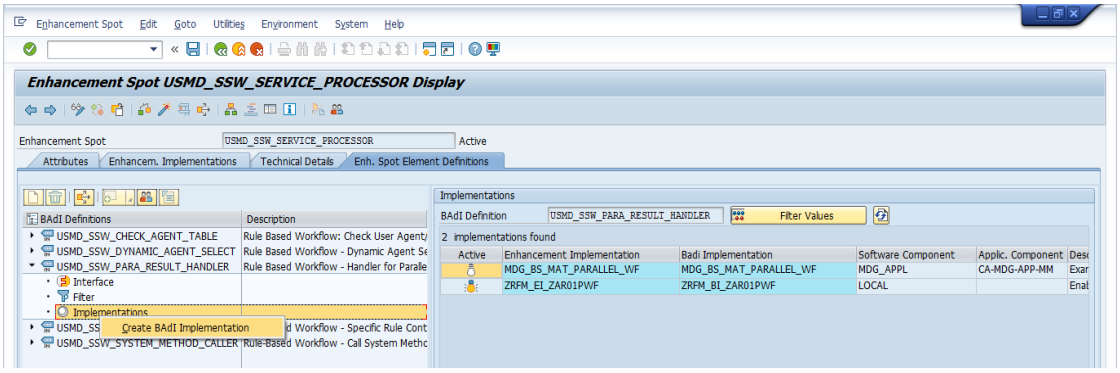
Implementation of the BAdIs

Use the following steps for implementation of BAdIs:

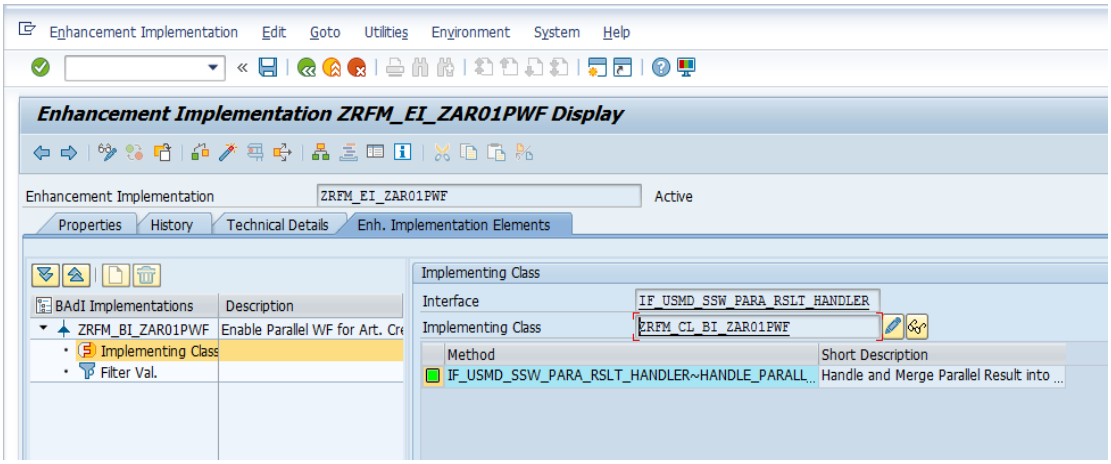
1. Run t-code (t-code) SE18 display enhancement Spot USMD_SSW_SERVICE_PROCESSOR



2. Create Enhancement Implementation for USMD_SSW_PARA_RESULT_HANDLER.
   - Display – Select BADI DEFINITION > USMD_SSW_PARA_RESULT_HANDLER
   - Right click on Implementation, and click on Create BADI Implementation
   - Create Enhancement Implementation: ZRFM_EI_ZAR01PWF

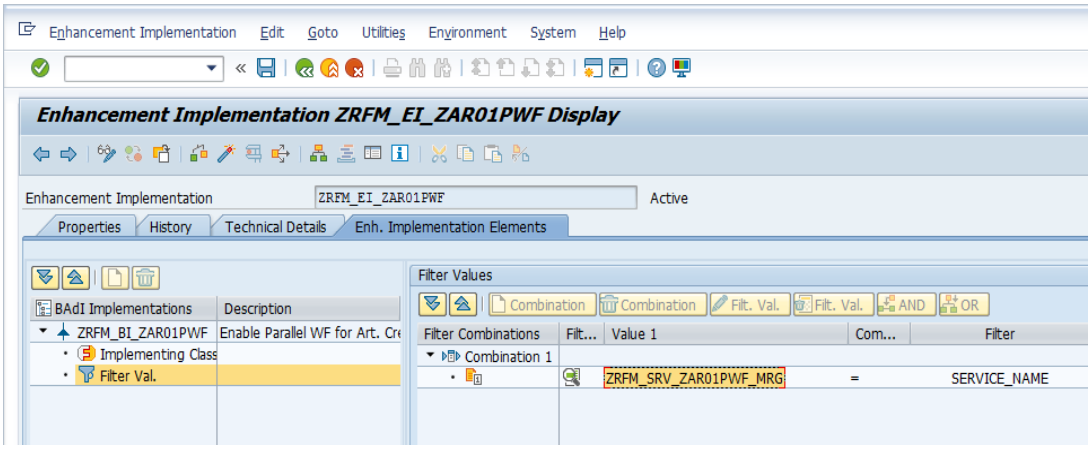


3. Create BAdI Implementation.
   - BAdI Implementation: ZRFM_BI_ZAR01PWF
   - Implementing Class: ZRFM_CL_BI_ZAR01PWF

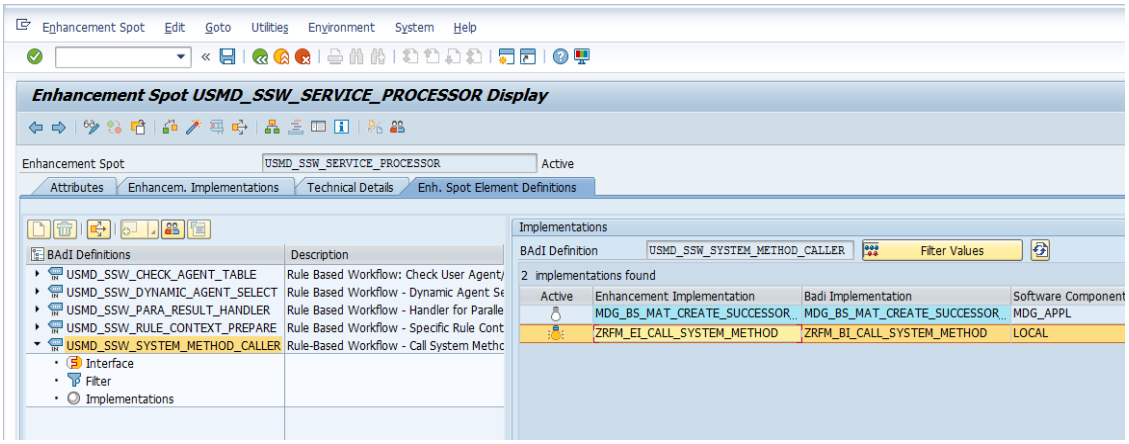


4. Save and activate.

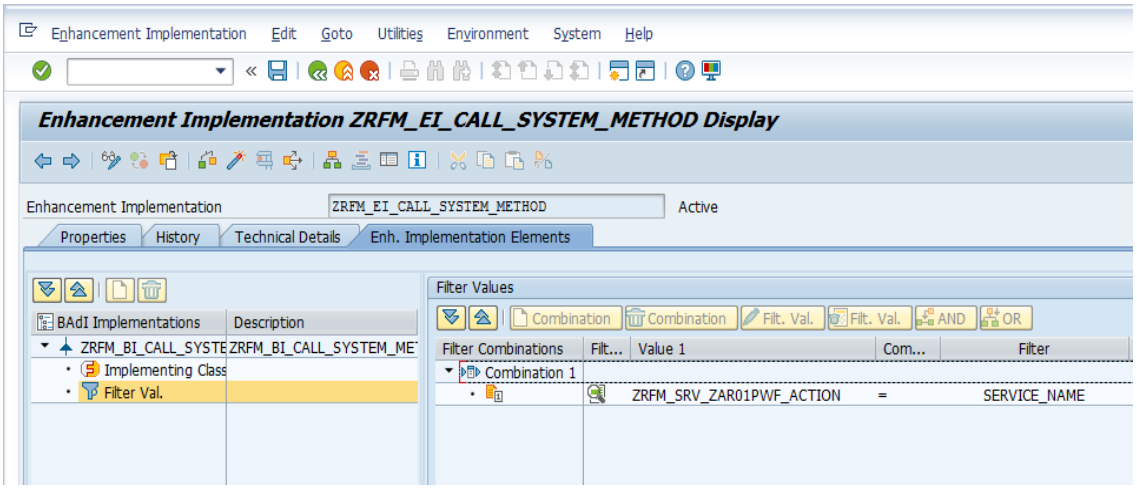
5. Double click on method:
   IF_USMD_SSW_PARA_RSLT_HANDLER~HANDLE_PARALLEL_RESULT.
   For the interface method, you can use the default coding from Example Enhancement Implementation MDG_BS_MAT_PARALLEL_WF (Parallel rule-based WF branches) and Implementing Class CL_MDG_BS_MAT_PARALLEL_WF. Save and activate.
6. Create Filter.



7. Create Enhancement Implementation for USMD_SSW_SYSTEM_METHOD_CALLER.
   - BAdI Implementation: ZRFM_BI_CALL_SYSTEM_METHOD
   - Implementing Class: ZRFM_CL_CALL_SYSTEM_METHOD



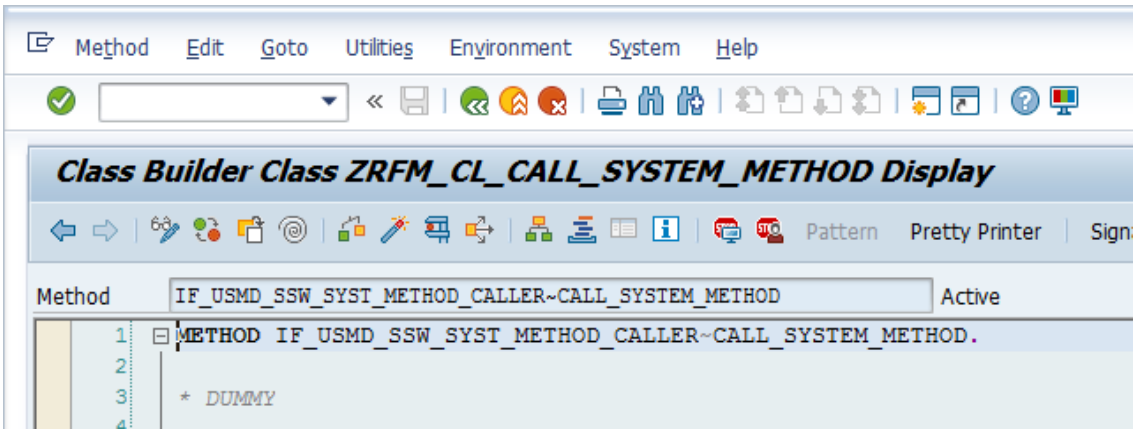
8. Create Filter



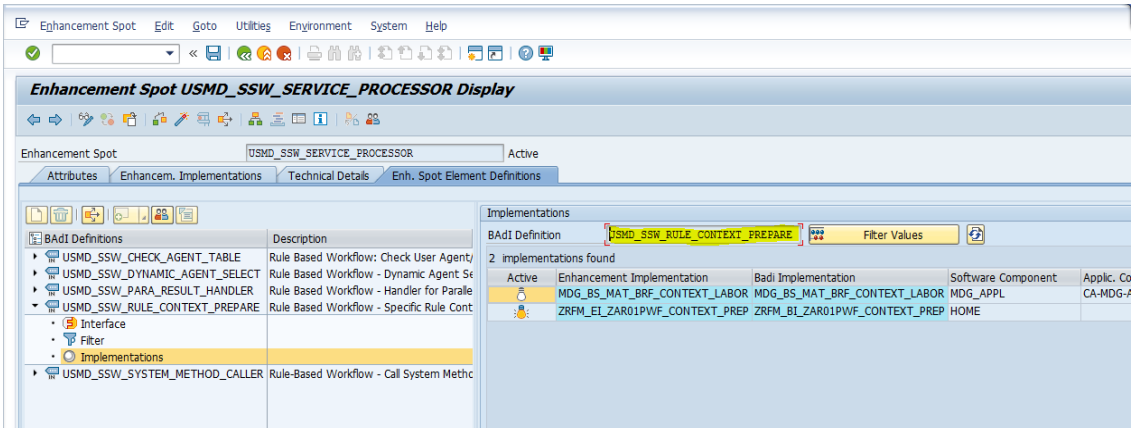
9. Save and activate.

Double click on method and enter * DUMMY".

10. Save and activate.



11. Create Enhancement Implementation for USMD_SSW_RULE_CONTEXT_PREPARE.

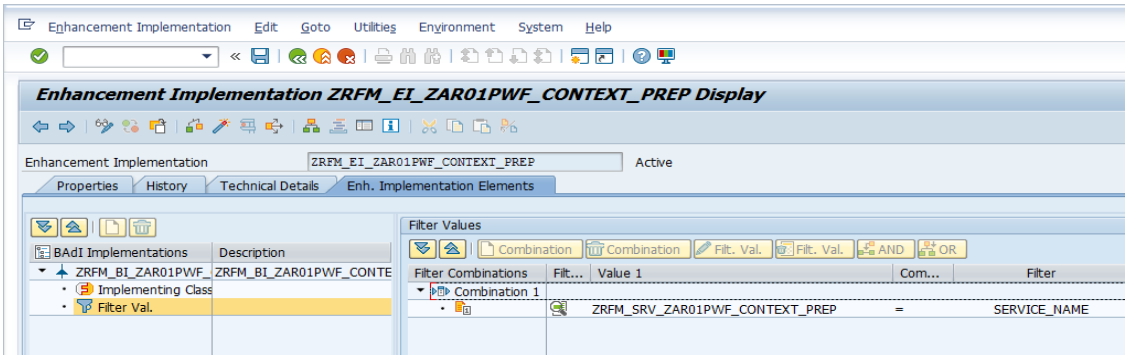


- BAdI Implementation: ZRFM_BI_ZAR01PWF_CONTEXT_PREP
- Implementing Class: ZRFM_CL_ZAR01PWF_CONTEXT_PREP

The source code of the implementation class is:

ZRFM_CL_ZAR01PWF_CONTEXT_PREP.txt

12. Create Filter



Define Change Request with Context Based Adaptation (CBA)

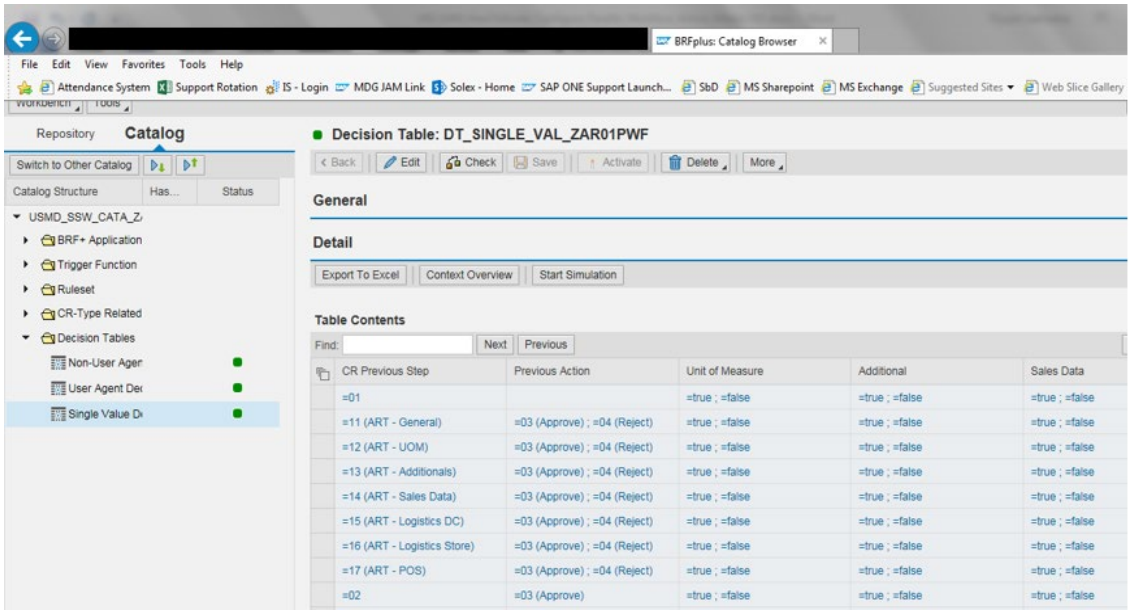
The How-To guide for the CBA is as follows:

UGI_RFM_HowToGuide_ExtendMDGUI

The general CBA steps are mentioned in the attached document. In this example, the required type 4 entity needs to be displayed for the user and hide all others.

Use the following steps:

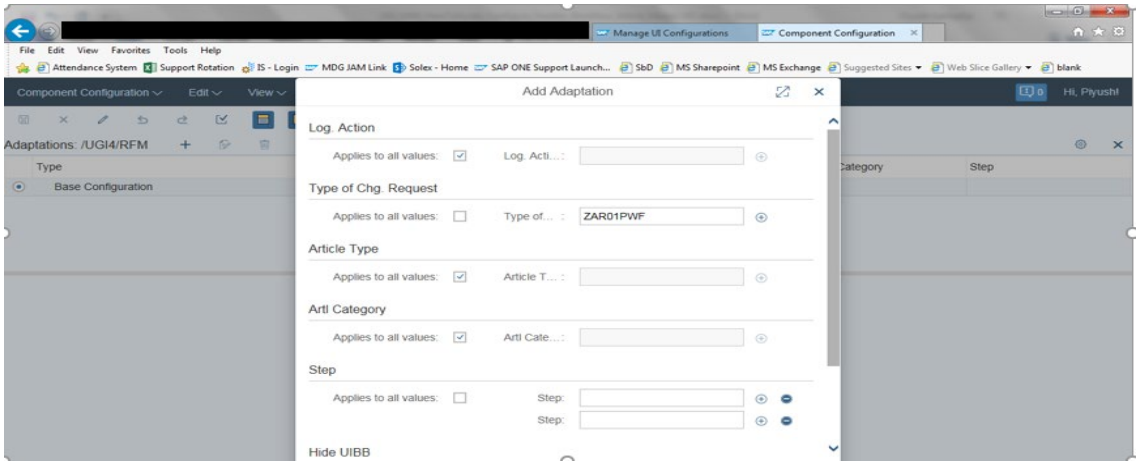
1. The single value BRF+ decision table filled in the previous steps is as follows:

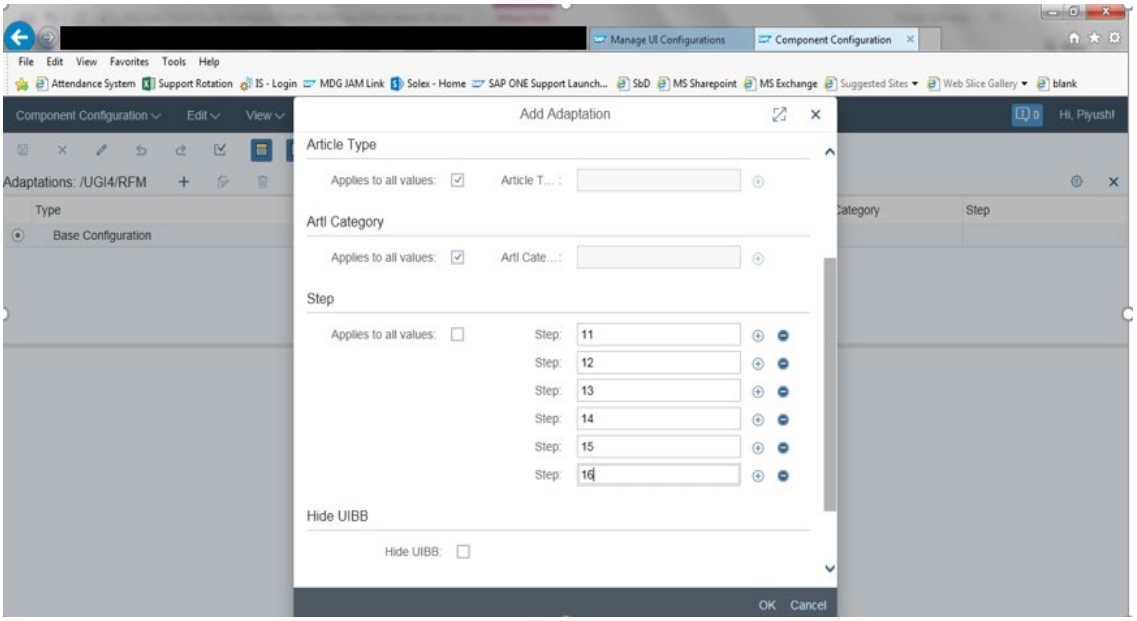


   For the understanding, the step numbers are named as 11 to 17 based on the entities to which those correspond.

   Let's take an example of step 17 – POS.

   For this step 17, only POS tab needs to be displayed and in all other situations where step no is not equal to 17, we will hide the POS UIBB.





The following CBA config hides the POS UIBB, for all the steps from 11 to 16 and will display it when step no. is 17.

The steps need to be repeated to adjust the UIBBs that are to be displayed in each step.

References

- How to Master Data Governance for Material: BAdi USMD_SSW_PARA_RESULT_HANDLER to merge result of parallel workflow tasks
- How to-Master Data Governance for Material: BADI USMD_SSW_RULE_CONTEXT_PREPARE to Enhance User Determination