SAP S/4 HANA MASTER DATA GOVERNANCE

2021-02

MASTER DATA GOVERNANCE, MATERIAL

DEMO EXPERIENCE
RULE CONTEXT BADI
Chris Kavanagh





Table of Contents

В	susiness Scenario	3
	tep By Step Procedure	
	Create a Change Request	
	Define Service	
	Create Enhancement Implementation	
	Create Badi Implementation	
	Create Filter	
	Customizing BRF+ Tables	
	Testing	



Background

A Badi is used to get additional parameters to the BRF+ user decision table.

You can use this Badi to implement preparation of the BRF rule context in the rule-based workflow. This Badi uses the method PREPARE_RULE_CONTEXT to get specific BRF+ rule context values from the workflow generic-context table and from change request data. The input is the change request number. The method uses the change request number to retrieve data from the change request. It then fills the BRF+ rule context table with specific values from the change Request.

In MDG Change requests can be created and then processed my multiple people. The Function of Rule Context badi is to route that CR at a certain step to a specific User/group/role.

Eg: If a company has placed all responsibilities on one person to be the processor of a specific material group as they are the expert on that material group; I can use the rule context badi to route all change requests of that material to be processed by that expert, ensuring any change request made containing that material will be processed by that expert and only that expert.

Business Scenario

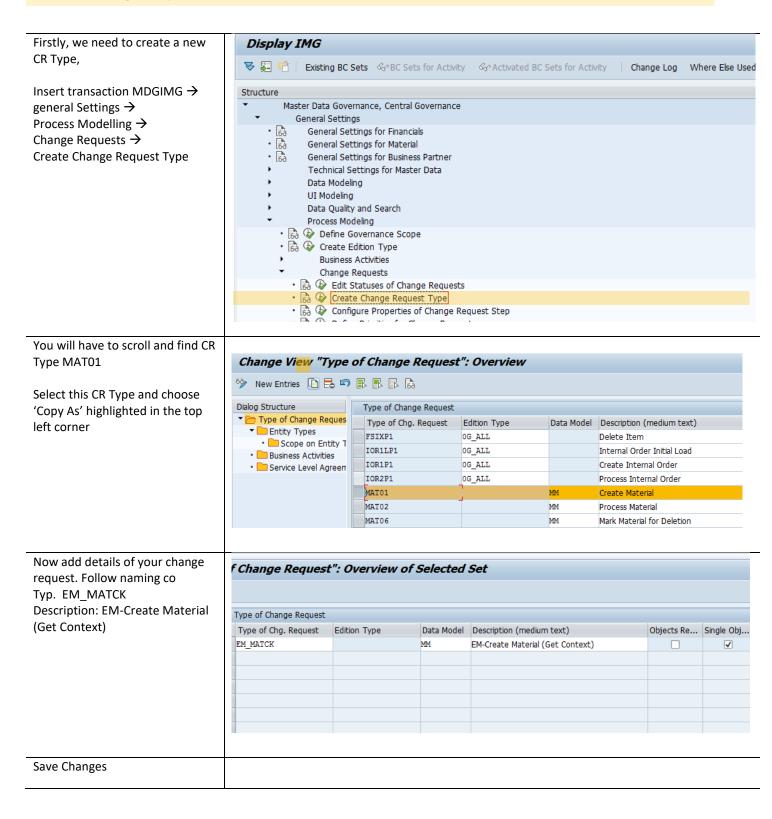
SAP MDG for Material provides business processes to find, create, change, and mark material master data for deletion. It supports the governance of material master data in a central hub and the distribution to connected operational and business intelligence systems.

This scenario addresses the customer requirement to have more process options dependent on additional fields from the data model MM. In this example we show how to determine either user 01 or 02 dependent on the value from field LABOR.



Step By Step Procedure

Create a Change Request

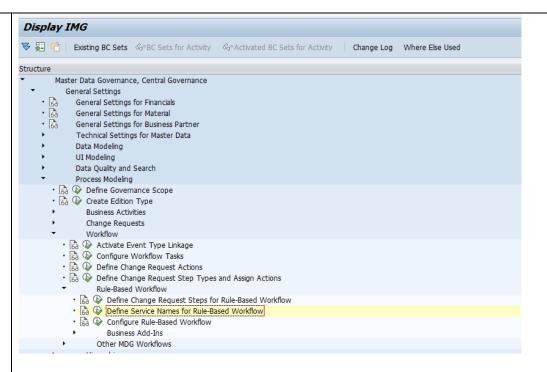




Define Service

We now must define a service

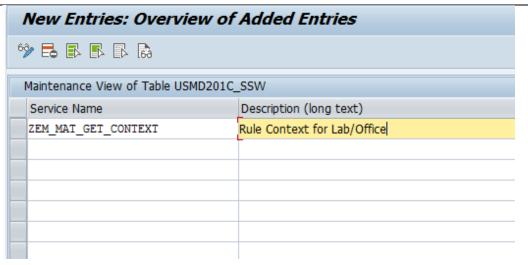
general Settings →
Process Modelling →
Workflow →
Rule-Based Workflow →
Define Service Names



Define the service name as follows

Service Name: ZEM_MAT_GET_CONTEXT

Desciption: Rule Context For Lab/Office





Create Enhancement Implementation

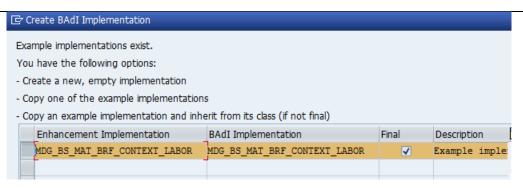
BAdI Builder: Initial Screen for Definitions We now need to create an enhancement Implementation. 🖆 🚭 | 奤 🗀 🕪 | 🗓 Enter transaction se18 for **Enhancement Spot** Use Enhancement Spot: USMD SSW SERVICE PROCESSOR Enhancement Spot USMD_SSW_SERVICE_PROCESSOR BAdI Name Click display 80 0 Display Change Create Enhancement Spot USMD_SSW_SERVICE_PROCESSOR Display Choose Badi definition USMD_SSW_RULE_CONTEXT_ \$\rightarrow\$ \int \frac{1}{9} \cdot \frac{1}{9} \cdot \frac{1}{1} \rightarrow \tilde{P} \rightarrow \tilde{P} \t **PREPARE** USMD SSW SERVICE PROCESSOR Active Enhancement Spot Attributes Enhancem. Implementations Technical Details Enh. Spot Element Definitions Right click on Implementations and click create BADI Implementation BAdI Definitions Description ▶ TUSMD_SSW_CHECK_AGENT_TABLE Rule Based Workflow: Check User Agent/Non-User ... ▶ ☐ USMD_SSW_DYNAMIC_AGENT_SELECT Rule Based Workflow - Dynamic Agent Selection ▶ 📰 USMD_SSW_PARA_RESULT_HANDLER Rule Based Workflow - Handler for Parallel Result Me... ▼ SMD_SSW_RULE_CONTEXT_PREPARE Rule Based Workflow - Specific Rule Context Value ...
 Interface
 • 🕝 Filter • O Implementations ▶ WUSMD SSW SYSTEM METHOD CALLER Rule-Based Workflow - Call System Method

Create Badi Implementation

당 Select or Create Enhancement Implementation When presented with this screen choose to create: MDG_BS_MAT_BRF_CONTEXT Enhancement Implementation Package SW Comp. Description MDG_BS_MAT_BRF_CONTEXT_LABOR MDG_BS_MAT_WF_CR MDG_APPL Example implementation: Add MARA-LABOR to BRF+ context _LABOR MDG_BS_MAT_SELECT_AGENT MDG_BS_MAT_WF_CR MDG_APPL Example implementation: Dynamic agent selection MDG_BS_MAT_PARALLEL_WF MDG_BS_MAT_WF_CR MDG_APPL Example implementation: Parallel rule-based WF branches MDG_BS_MAT_CREATE_SUCCESSOR... MDG_BS_MAT_WF_CR | MDG_APPL | Example implementation:Create successor change request for Select Ok Fill in the details of the BADI 🕏 Create BAdI Implementation Implementation as Shown: BAdI Implementation ZMDG BS MAT BRF CONTEXT LABOR ZMDG_BS_MAT_BRF_CONTEXT_LABOR Description ZL MDG BS MAT BRF CONTEXT LABO Implementing Class



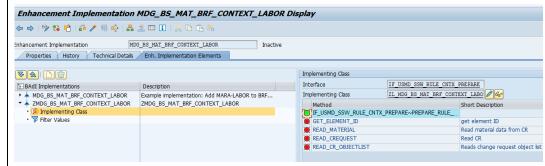
Select the Enhancement Implementation and click copy Sample Class



Select your new BADI Implementation: ZMDG_BS_MAT_BRF_CONTEX T LABOR

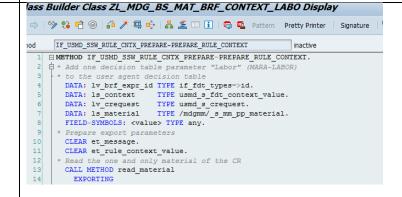
The double click implementing class

Double click on the first method: IF_USMD_SSW_RULE_CNTX_P REPARE



This is the code for your badi.

Scan through it then click save and activate

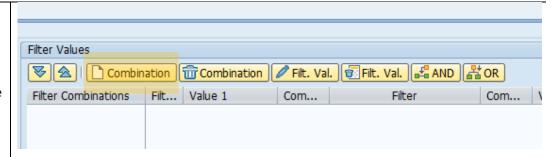


Create Filter

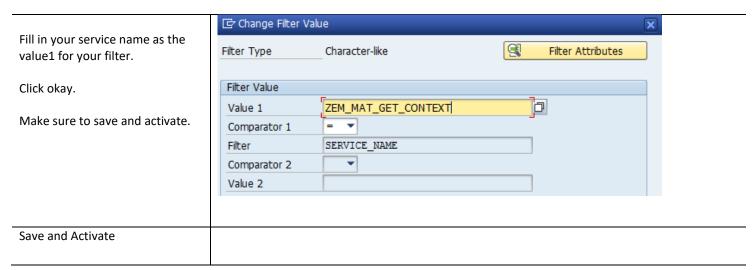
Now we have to create a filter:

Underneath implementing class select 'Filter values'

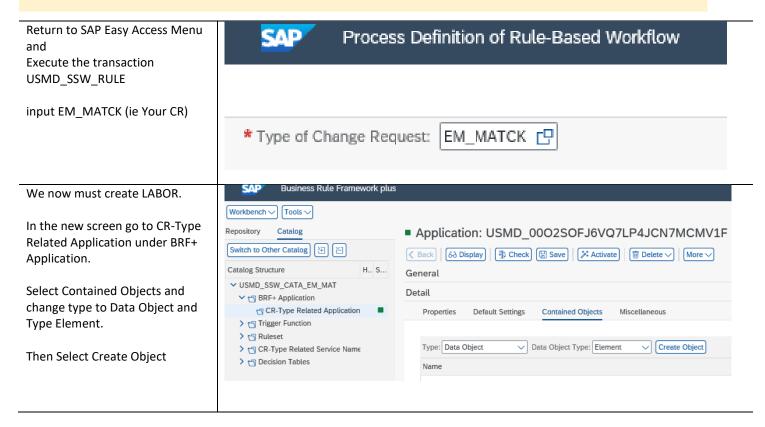
Select combination \rightarrow On the line that pops up double click the yellow page







Customizing BRF+ Tables



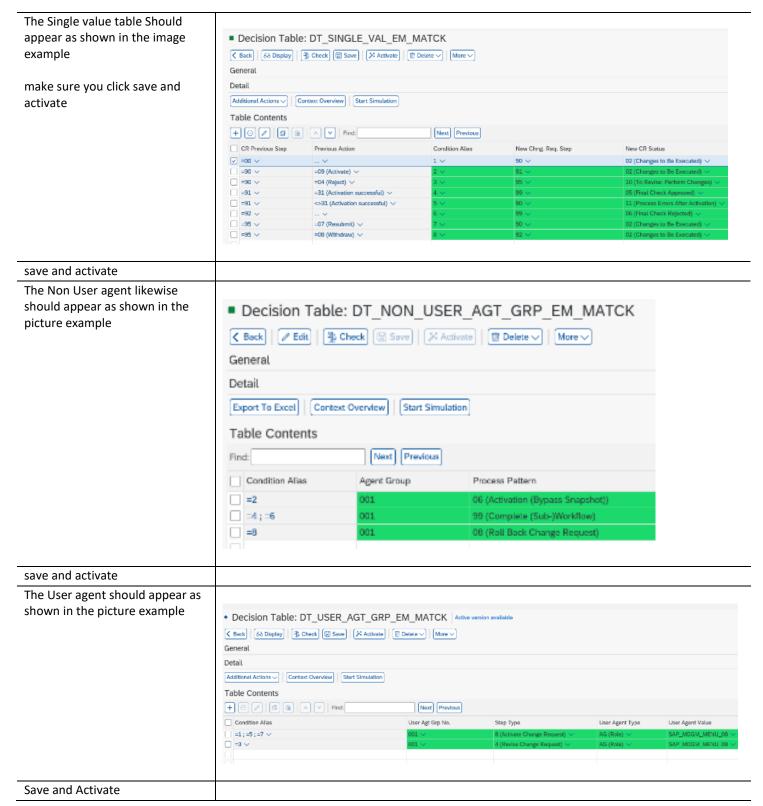


Enter the details as shown in the General data example. Element Type: LABOR * Name: Ensure to bind to ddic and search Laboratory **LABOR** Short Text: Text: Lab/Office Once all details are entered as Application: USMD_0002S0FJ6VQ7LP4JCN7MCMV1F show click create and navigate to Element object. Properties Value Help Element Attributes Define Data Binding 3 Bind to ... 🗸 Refres... Length: Binding Type: DDIC Elem...: LABOR Convert to...: Lab/Office DDIC Desc...: Define Element Properties Text Element Ty ...: Save and Activate Business Rule Framework plus th V Tools V Change Function to Call Ruleset ■ Function: USMD_FN_CALL_DT_RS, Call Decision Table Ruleset Catalog Switch to Other Catalog 【 Back】 6ð Display】 □ Check □ Save □ Activate □ Delete ✓ More ✓ GO to trigger function and select Catalog Structure General Function to Call Ruleset. V USMD_SSW_CATA_EM_MAT Detail ✓ 🗂 BRF+ Application Simulation Click edit and then select Add Mode: Event Mode ▲ Function to Call Ruleset
> ☐ Ruleset existing Data Object. Signature > CR-Type Related Service Name > 🗂 Decision Tables
 Add Existing Data Object
 ↑ Add New Data Object
 ○ Remove
 ١
 In the search write Name is equal Object Query to LABOR. Hide Search Fields Search Criteria The search should display the object you created select this ✓ USMD_0002SOFJ Application ... ✓ is equal to object and click okay. \oplus Data Object is equal to **(+)** Name is equal to **(+)** is equal to Also include objects from default BRFplus application: Maximum Number of Results: Search Clear Reset Result list: 1 objects found Previous Next Show All Objects Swhere Used D Object Status Туре Application RBWF APP EM MATCK ♣ Laboratory Text Save and Activate



In a new GUI Window input transaction: USMD_SSW_RULE Input CR MAT01 and click okay. Decision Table: DT SINGLE VAL MAT01 Click on Decision tables on the bottom of the left Column General Detail Open Single value Decision table Export To Excel Context Overview Start Simulation and click export to excel highlighted in the image. **Table Contents** Next Previous Find: Repeat this for the two other decision tables CR Previous Step Previous Action Chng. Req. Priority Chng. Req. Reason =00 (Processing) =90 (Final Check) =09 (Activate) =90 (Final Check) =04 (Reject) =91 (Activation) =31 (Activation successful) =91 (Activation) 31 (Activation successful) =92 (Revision) =95 (Revision Processing) =07 (Resubmit) =95 (Revision Processing) =08 (Withdraw) Returning to your EM MATCK **Workflow Configuration** Decision Table: DT_NON_USER_AGT_GRP_EM_MATCK Open Decision table like the previous step, you will notice these decision tables are blank. Detail Additional Actions V Context Overview Start Simulation Now we have to import the tables from excel. Next Previous Agent Group Click additional Actions → Import Merge Rows ws. Use "Insert New Row" to add conditions from Excel. Import From Excel ↑ 🕟 > wdflbmt7096 > Downloads ✓ ♂ Search Downloads Do this for the three decision tables. Organize ▼ New folder ₩ • • Date modified * Favorites desktop.ini Desktop 2/1/2021 9:22 AM Configuration sett.. 1 KB Ensure you select the correct 2/3/2021 10:22 AM Microsoft Excel W... DT_NON_USER_AGT_GRP_MAT01.xlsx Downloads 9 KB excel file for each corresponding Recent places DT_SINGLE_VAL_MAT01.xlsx 2/3/2021 10:22 AM Microsoft Excel W... DT USER AGT GRP MAT01.xlsx 2/3/2021 10:22 AM Microsoft Excel W... 9 KB decision table or it will not work № wdflbmt7096

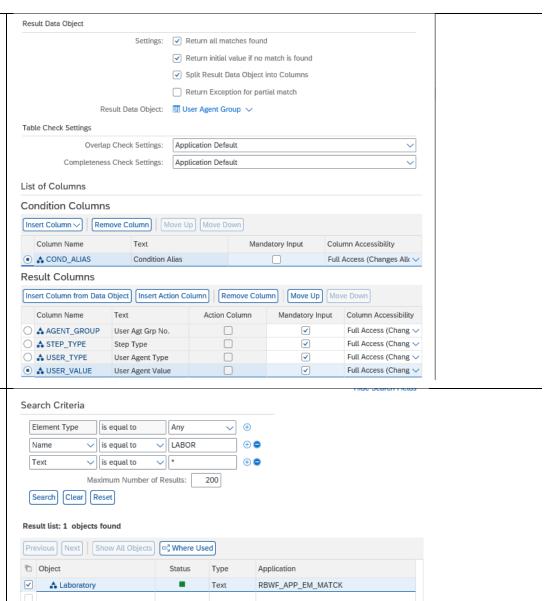






The User Agent table will need to be altered to contain Laboratory. To do this we will need to click edit mode and choose Table settings on the right-hand side above the decision table.

You will now be brought to the screen shown. Click on insert Column → From Context Data Objects



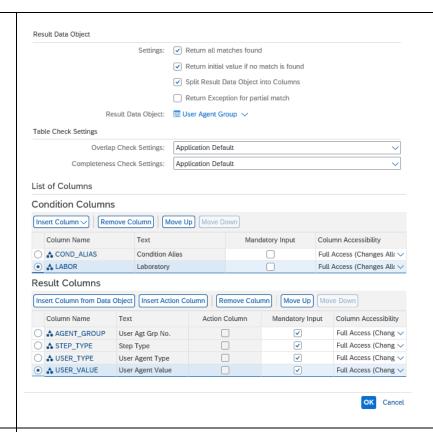
Search for LABOR and select the data object Laboratory that you created.

Click okay



Your condition column should now appear as shown in the example picture.

If so click okay



Your User agent table should appear as follows click save and activate

You will need to modify this decision table.



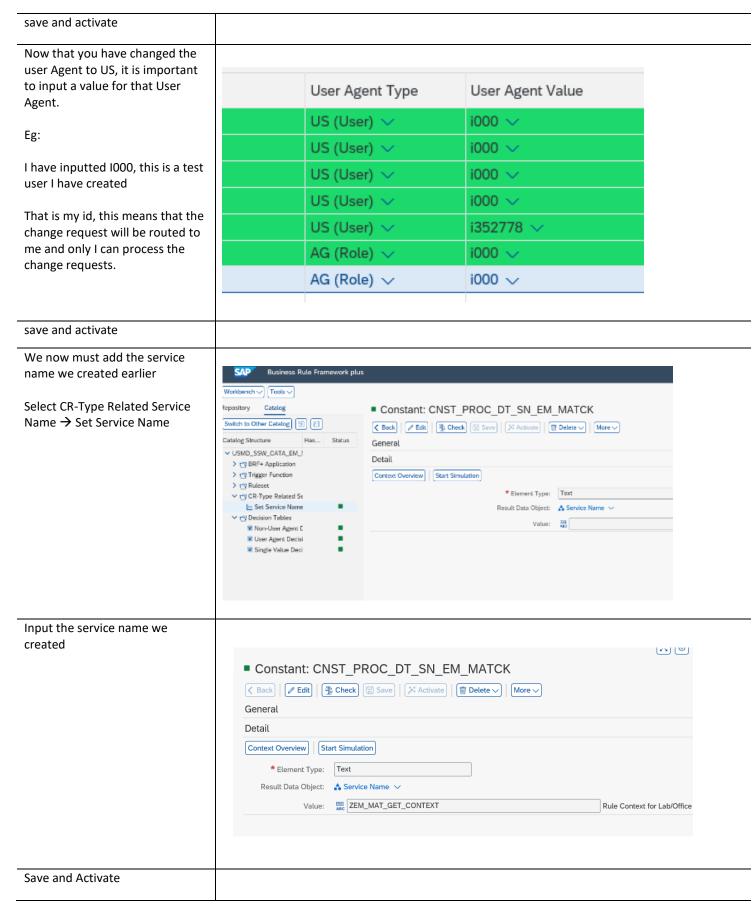
Modify the User decision table so it appears as shown in the picture.

You are creating conditions for Labs :

 $001\,\text{,}\,002\,\text{,}\,\text{E1}\,\text{,}\,\text{E2}$ and E3







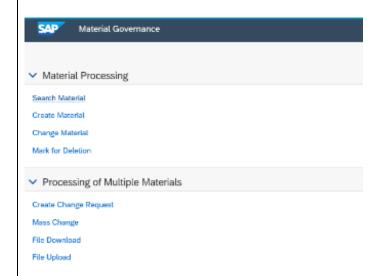


Testing

We now have to test our configurations; we will create a material with the LAB 001 and check if it must be processed by our Test User i000

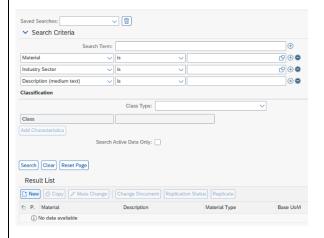
Open NWBC and go to the Material tab.

Select Search Material from the Material processing list



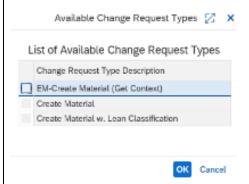
Here we can search for a material. It is recommended to search for the material you are going to create to ensure it is not in the system..

Select new.



Make sure to select the change request you created

'EM-Create Material(Get Context)'



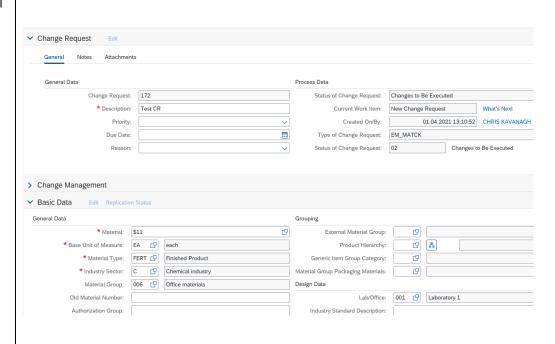


Fill in the details of your material as you please.

Make sure to fill in the Laboratory value as 001

Also make sure to add a description.

Select submit



Afer submitting the system will push this request to the designated processor in our workflow as the lab value was 001...

In the example notice The Requestor is me although the processor is User Test our i000 number.

