Configuring Rules for JIT Component Group Determination

In SAP Business Rules service -
Manage Projects Application

THE BEST RUN **SAP**

TABLE OF CONTENTS

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Overview

During the creation of a summarized or sequenced JIT call, the component group and component group material is determined by default. This default determination substitutes the supplier material from the Sales Scheduling Agreement in both the fields - *Component Group Number* and *Component Group Material*.

To change the above default determination, there are two ways:

- Implementing the BAdI

- Using the SAP Business Rules service - Manage Projects application (Manage Rules Project application)

Both these processes are explained in this document.

Prerequisites

For access to Manage Projects application, use the link provided in the SAP API Business Hub under **Content Types → Digital Content → SAP S/4HANA Just-In-Time Integration with SAP Business Rules service → Details → Documents.** Here open the *SAP Help Portal: Configuration for SAP Business Rules service* link.

After the successful access to Manage Projects application, make sure that the following system configuration has been completed as well:

- Configuration of the system to import project from SAP API Business Hub → Import a Project
- Configuration of the system to integrate with SAP S/4HANA Cloud system → Integrating with an SAP S/4HANA Cloud System (*Configure Inbound Communication* and *Configure Outbound Communication*)
- Configuration of managed system to consume business rules → Configure a Managed System

Implementing the BAdI

You can implement the Business Add-In (BAdI) for Component Group Determination in the Custom Fields and Logic application in the extensibility system. The implementation can be done under the *Custom Logic* tab by creating a new enhancement implementation for *Business Context* as `Logistics Execution: JIT Call Components` and *BAdI Description* as `JIT: Component Group Determination.`

Using the Manage Projects Application

Under this application you can create business rules to determine component group number and component group material based on different fields, which in turn can be deployed to the respective system where these rules will be run instead of the default implementation.

To achieve the above scenario, you must follow the steps mentioned below. The steps have been further divided into sub-steps, which are as follows:

(i)   Import Business Rules Project from SAP API Business Hub

1. Open the Manage Projects application.

2. Choose *Import* button in the top right-hand corner and select *Import Project from SAP API Business Hub*, which must open a dialog box.

3. In the dialog box for the *System* field, select the system already configured for importing the project from SAP API Business Hub from the dropdown.

4. Also select the *Content Package Name* value `SAP S/4HANA Just-In-Time integration with SAP Business Rules service` and choose *Go*.

5. The window with the heading *Choose a Project* now shows two projects, of which you must select the project with *Project Name* value `Component Group Determination` and choose *Import* in the below right corner of the dialog box.

6. The project from SAP API Business Hub is successfully imported and the Manage Projects application now has an entry with the following fields:

    - *Project Name* - `JIT_COMPONENT_GROUP_DETERMINATION`

    - *Project Label* - `JIT Component Group Determination`

7. Choose the project imported above to navigate to within the project.

(ii)   Activating the Business Rules Project

    a. Data Objects:

1. Go to the *Data Objects* tab.

2. Choose the entry with the following fields: *Name* - `COMPONENT_GROUP_INPUT_STRUCTURE` and *Label* - `JIT Call` that navigate you to within that data object.

3. Choose *Edit* and then *Activate*. Then go back by choosing the link on the page *JIT Component Group Determination*.

4. Repeat the steps 2 and 3 for entry with the fields: *Name* -
   `COMPONENT_GROUP_OUTPUT_STRUCTURE` and *Label* - `Component Group`.

- Repeat the steps 2 and 3 for entry with the fields: *Name* - `CREATE_RULE_TABLE` and *Label* -
  `JIT Call Collection`.

5. Repeat the steps 2 and 3 for entry with the fields: *Name* - `SEND_RESULT_TABLE` and *Label* -
   `Component Group Collection`.

b. Rule Services:

1. Go to the *Rule Services* tab.

2. Choose the entry with the following fields: *Name* - `JIT_COMPONENT_GROUP_RSVC` and *Label* -
   `Determine JIT Component Group`, which will navigate you to within that rule service.

3. Choose *Edit* and then *Activate*. Then go back by choosing the link on the page *JIT Component
   Group Determination*.

c. Rules:

1. Go to the *Rules* tab.

2. Choose the entry with the following fields: *Name* -
   `JIT_COMPONENT_GROUP_DETERMINATION_RULES` and *Label* - `Ship To Party based
   classifier rules`, which will navigate you to within that rule.

3. Choose *Edit* and then *Activate*. Then go back by choosing the link on the page *JIT Component
   Group Determination*.

d. Rulesets:

1. Go to the *Rulesets* tab.

2. Choose the entry with the following fields: *Name* - `JIT_COMPONENT_GROUP_RSET` and *Label* -
   `Standard Component Group Classifier`, which will navigate you to within that rule.

3. Choose *Edit* and then *Activate*. Then go back by choosing the link on the page *JIT Component
   Group Determination*.

e. Details:

1. Go to the *Details* tab.

2. Choose *Edit* and then *Activate*.

(iii)   Creating Rules

1. Go to the *Rules* tab.

2. Choose the entry with the following fields: *Name* - `JIT_COMPONENT_GROUP_DETERMINATION_RULES` and *Label* - `Ship To Party based classifier rules`, which will navigate you to within that rule.

3. Choose *Edit* and go to the *Decision Table* tab below.

Before going to the further steps, a short explanation about the Decision Table and rule creation is given below:

The Decision Table contains two parts - the 'If' part and the 'Then' part. The 'If' part contains fields based on which the fields in the 'Then' part get filled. The fields in the 'If' part can be added or removed based on your requirement, whereas the fields in the 'Then' part must not be removed.

By default, the Decision Table contains the field *Ship-To Party* in the 'If' part and fields *Component Group Number* and Component Group Material in the 'Then' part.

To add the fields in the 'If' part from the values in the **Vocabulary** section below, follow the below steps:

i.   Choose *Decision Table Settings* in the lower right corner of the Decision Table, which opens a dialog box.

ii. In the section *Conditions in Decision Table*, choose the *Add Row* button. A new blank row gets added.

iii. Place the cursor inside that row and press keys *Ctrl + Space*. A selection menu gets displayed.

iv. Select *Structure table that defines rules* and again press keys *Ctrl + Space*, which opens the Vocabulary that shows all the fields that can be added.

v.   Select one field and choose *Apply*. The newly selected field gets added in the Decision Table in the 'If' part.

Important Note:

a. Do not use the field *Key* in the Decision Table in the 'If' part. Also do not edit the *Key* field in the *Result Attributes* (which has an *Access* value of Hidden).

b. Do not change any other settings in the *Decision Table Settings* other than adding of new fields in the 'If' part.

To add values to the fields, follow the below mentioned steps:

1. Choose *Add Row* and select *Insert First*, which adds a new row in the Decision Table.

2. To insert values in the fields added in the 'If' part, put the cursor in the field space provided, press keys *Ctrl + Space,* and select *Comparison Operator* as `is equal`.

3. Press keys *Ctrl + Space* and select *Fixed Value*.

4. In the *Fixed Value* field, enter the value you wish to enter inside a single quote and click outside the tab opened until the Decision Table fills the value entered by you.

   Note: If the field in the 'If' part is left blank, this implies that for all the values of that field, the rule will be true.

5. To insert values in the fields added in the 'Then' part, which contains two fields – *Component Group Number* and *Component Group Material* – put the cursor in the field space given and press keys *Ctrl + Space* and select *Fixed Value*.

6. In the *Fixed Value* field, enter the value you wish to enter inside a single quote and click outside the tab opened until the Decision Table fills the value entered by you.

7. If you wish to fill values other than any fixed values, such as plant, unloading point, and so on (in other words, fields in the Vocabulary), which will be filled automatically based on the JIT call (summarized or sequenced), press keys *Ctrl + Space* and select *Structure Table that defines rules*. This opens the Vocabulary from which to select fields.

8. Select a field (other than *Key*) and click outside the tab opened until the Decision Table fills the value entered by you.

   Note: If you do not specify values in any of the *If* fields, all available values for those fields are considered during rule determination.
   If you do not wish to specify values in the Then fields, these can be left blank.

9. After the rules are finalized and created, choose *Activate*.

(iv)   Deploying Rules

   a. Go to the *Details* tab.

   b. Choose *Edit* and then select the system from the menu. (By default, the system is given as Cloud Runtime.) Change this system to the one you have configured as the managed system in the *Prerequisites* section above.

   c. Choose *Activate*.

   d. Go to the *Rule Services* tab.

e. Under the entry with the fields *Name* - `JIT_COMPONENT_GROUP_RSVC` and *Label* - `Determine JIT Component Group`, choose *Deploy*.

f. A dialog box appears, asking for the system to deploy. Select the system here as well.

g. A message for successful deployment appears.

Important Notes:

- You must not create any new rule service nor make any changes in existing ones.

- You must not edit any Data Objects or Rulesets, nor create any new ones.

- Any new entry for Rules must also not be created.

- The Decision Table must not be deleted.

Important Note: The rules once deployed successfully will be active in the respective system till a new rule is deployed. **In case you want to stop using the deployed rules**, follow the below steps:

1. Go to the *Rules* tab.

2. Choose the entry with the following fields: *Name* - `JIT_COMPONENT_GROUP_DETERMINATION_RULES` and *Label* - `Ship To Party based classifier rules`, which will navigate you to within that rule.

3. Choose *Edit* and change the rules such that these do not fit any criteria, hence returning no results. Then choose *Activate* and then go back by choosing the link on the page *JIT Component Group Determination*.

4. Deploy these rules by following the ***Deploying Rules*** steps mentioned above.

   As there are no rules that match the criteria of a JIT call (summarized or sequenced), the rules will not work, and the default implementation will work again.

   Alternatively, delete the configuration of the system to integrate with SAP S/4HANA Cloud System (Inbound and Outbound scenarios). As the communication arrangement is now lost, the rules will not be called, and the default implementation will work again.

Important Note:

In the scenarios mentioned below, the component group number and component group material are determined by either default implementation (DI) or BAdI or SAP Business Rules service.

If BAdI is…	And SAP Business Rules service is…	Determined by
Implemented	Not Implemented	BAdI
Not Implemented	Implemented	SAP Business Rules service
Implemented	Implemented	SAP Business Rules service
Not Implemented	Not Implemented	DI

Vocabulary:

COMPGRPMATL - Customer Components Group Material

COMPGRPNUMBER - Component Group Number

CUSTASSEMBLYLOC - Assembly Location at Customer Site

CUSTCOMPGRPMATL - Component Group Material

CUSTSUPPLYAREA - Customer Supply Area

EXTCOMPGRPNUMBER - External Component Group Number

EXTJITCALLITEMNUMBER - External Call Item Number

JITCALLTYPE - Call Type (0 – Summarized JIT Call and 1 – Sequenced JIT Call)

KEY - Key

MATERIAL - Material Number

MATERIALBYCUSTOMER - Customer Material

PLANT - Plant

PRODUCTNAME - Product Description

SHIPPINGPOINT - Shipping Point or Receiving Point

SHIPTOPARTY - Ship-To Party

STORAGELOCATION - Storage Location

UNLOADINGPOINTNAME - Unloading Point

REORDER - Reorder

Relevant Components for Customer Incidents

In case of errors with the content, open a customer ticket in component `LE-JIT-S2C`.