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Configuring Rules for SAP Transportation Resource Planning Using SAP Business Rules Service



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1 Overview

In SAP Transportation Resource Planning, business rules are used for performing major functions such as determining locations for pick-up and return of transportation resources and triggering alerts based on the supply and demand situation of resources at a particular location.

Template business rules are provided to enable you to define rules depending on your business processes.

1.1 Prerequisites

In your SAP Business Technology Platform (SAP BTP) account, ensure that you have subscribed to SAP Business Rules service.

2 Importing Standard Business Rules from the API Hub

In this procedure, you import the standard business rules for SAP Transportation Resource Planning from the SAP API Business Hub.

1. Open the **Manage Projects** application.
2. Choose the **Import** button in the top right-hand corner and select **Import Project from SAP API Business Hub**.

A dialog box is displayed.
3. In the dialog box, enter the following fields:
 - **System:** Select the system already configured for importing the project from SAP API Business Hub.
 - **Content Package Name:** Select the value **SAP Transportation Resource Planning with SAP Business Rules service**.

4. Choose **Go**.

The **Choose a Project** window shows a list of projects.

5. Select the project with the project name value **SAP_Transportation_Resource_Planning_Rules** and choose **Import**.

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

- **Project Name:** SAP_Transportation_Resource_Planning_Rules
 - **Project Label:** SAP Transportation Resource Planning Rules
6. Choose the project imported above to navigate to the project.

3 Defining Custom Business Rules Using Standard Rules

1. Open the **Manage Projects** application.
2. Create a new project for designing custom business rules based on standard rules.
3. Select the standard base project **SAP Transportation Resource Planning** in the included projects field.
4. Now you can use the included data objects/rules in your custom project and define new data objects and rules.

4 Deploying Rules in SAP Transportation Resource Planning

Note

For more information about deploying the modelled rules, see the documentation for SAP Transportation Resource Planning on SAP Help Portal at <https://help.sap.com/trp>. Select your version, open the Master Guide, and search for **Deploy Business Rules**.

1. Open the rule deployer application at **`https://<host>:<port>/webapp/index.html`**.
2. Choose **Activate Rules** and then select the project name of the project that is available in SAP Business Rules service.
3. Choose **Submit**.
4. Once the rules are activated successfully, choose **Deploy Rules**.
5. Select the Rule Project and Rule ID.
6. To deploy predefined business rules, select the SAP HANA Deployment Infrastructure (HDI) container as the schema name for the SAP Transportation Resource Planning object registration `<SAP_TRP_OREG>`.
7. Choose **Submit**.

5 SAP Transportation Resource Planning Business Rules

The following table provides the list of business rules delivered for various functions in SAP Transportation Resource Planning:

Rule Name	Rule Description
R_DT_PICKUP_TU_EXCLUSIVE	Decision table rule used to exclude transportation units from pick-up rulesets based on criteria such as equipment type and point of loading.
R_DT_RETURN_TU_EXCLUSIVE	Decision table rule used to exclude transportation units from return rulesets based on criteria such as equipment type and point of discharge.
R_DT_PICKUP_BASE_DEFAULT	Decision table rule used to rank locations in pick-up rulesets. The locations can be ranked for different points of loading based on transportation cost, storage cost, and handling cost.
R_DT_RETURN_BASE_DEFAULT	Decision table rule used to rank locations in return rulesets. The locations can be ranked for five different points of discharge based on transportation cost, storage cost, and handling cost.
R_DT_KPI_RATE	Decision table rule used to trigger KPI alerts. The alerts can be triggered based on conditions such as the idle rate of certain location types and equipment types.
R_DT_KPI_QUANTITY	Decision table rule used to trigger KPI alerts. The alerts can be triggered based on conditions such as the quantity of equipment types in certain locations.
R_DT_KPI_QUANTITY_LESSTHANSPECIFICVALUE	Decision table rule used to trigger KPI alerts. The alerts can be triggered based on conditions such as the quantity of equipment types in certain locations.
R_DT_SD_STOCK_DEFAULT	Decision table rule used to trigger alerts for the stock situation in a location if the stock is greater than the maximum safety stock or less than the minimum safety stock for a location and resource combination.
R_DT_SD_SUPPLY_DEFAULT	Decision table rule used to trigger alerts for the supply situation if the supply is less than demand at a location for a resource.
R_DT_SD_DEMAND_DEFAULT	Decision table rule used to trigger alerts for the demand situation if demand is greater than supply at a location for a resource.
R_DT_SD_SUPPLYDEMAND_DEFAULT	Decision table rule used to trigger alerts for the supply and demand situation if the supply and demand balance is less than zero at a location for a resource.

Rule Name	Rule Description
R_DT_AVAILABLECHECK_LEVEL	Decision table rule used to check the availability level depending on the balance stock for supply and demand and requested quantity.
R_DT_AVAILABLECHECK_PLAN	Decision table rule used to check the supply and demand plan corresponding to a location and equipment type.
R_DT_STOCK_ALERTVIEW_DEFAULT	Decision table rule used to trigger alerts based on the resource stock if the stock is less than the minimum safety stock and/or greater than the maximum safety stock.
R_DT_STOCK_BUBBLEVIEW_DEFAULT	Decision table rule used to identify a surplus and deficit based on resource stock if the stock is less than or greater than a provided threshold.
R_DT_SD_KPI_BUBBLE_DEFAULT	Decision table rule used to find the surplus or deficit quantity based on the balance of supply and demand.

In case of errors with the rules content, open a customer ticket in component SCM-TRP.

In case of errors with the SAP Business Rules service, open a customer ticket in component LOD-BPM-RUL.

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