

Rapid Data Governance

User Guide

Version 2.13





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Introduction to RDG

Welcome to Rapid Data Governance

Rapid Data Governance (RDG) is an SAP UI5 Cloud-based application that builds on SAP Business Technology Platform to automate MDG customizing and enhancement through standard APIs. It provides an elegant UI and sensible logic to help users to perform all necessary tasks for a typical SAP MDG implementation. It can also help to empower the business to maintain a deployed SAP MDG solution without the comprehensive technical background.

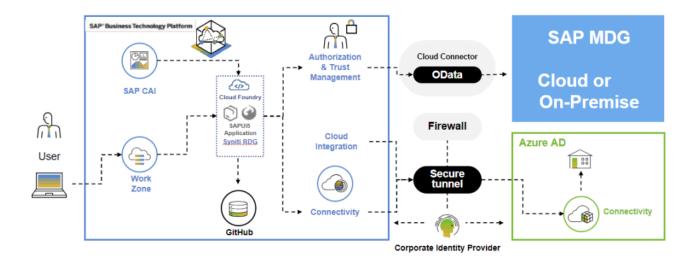
Through intuitive graphical representation of the data model, business rules and workflow RDG increases the adoptability and usability of SAP MDG through an elegant UI. RDG can complement and fast track MDG reducing the cost of implementation by at least 30%.

About this Guide

This guide contains two kinds of information:

- An overview that helps you understand RDG and how it works.
- Step by step information that explains the process and how to perform all necessary tasks of a typical SAP MDG implementation in the RDG application.

RDG Architecture



Prerequisites

- HTML5/SAPUI5 Application running on SAP Cloud Platform.
- SAP MDG installed and activated.
- SAP Cloud Connector installed and functioning connection to SAP MDG.



Initial Setup and Configuration

RDG runs as a website on the client's network. Authorized users on the client's domain have access to tools directly or the tools can be accessed remotely from a VPN connection. No other client software installations are required apart from a supported standard web browser such as Google Chrome, Mozilla Firefox or Microsoft Edge. Your local system administrator will provide you with the correct links, user ID and password to access RDG. Prerequisite conditions need to be fulfilled.

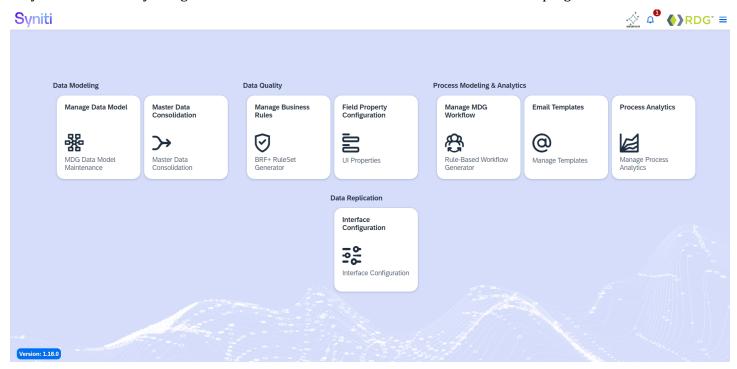
Licensing of This Product

The RDG administrative team will provide the license key file to be imported into your connecting MDG system.

RDG User Interface

Home Screen

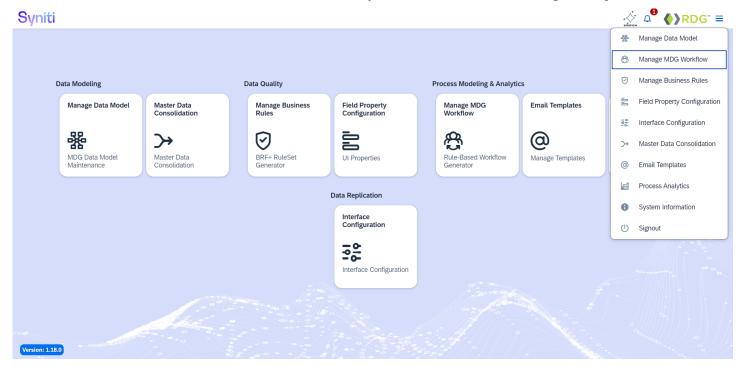
After logging into RDG, the user will see the RDG Home Screen as shown below. From the home screen, navigate to any of the features by using the tiles in the center or the screen or the menu in the top right corner.





Menu Structure and Navigation

The Menu Structure includes different functional areas, System Information, and the sign-out option.



RDG Navigation

Icon	Name	Use
♦ >RDG [∞]	Home Go back to the Home Screen from any screen in the application	
+ + SUPERNOVA	RDG Support Assistant	Use the RDG Support Assistant which will provide access to user guide information and the support site.
<	Back	The back button helps to navigate to the previous screen or exit from the current screen

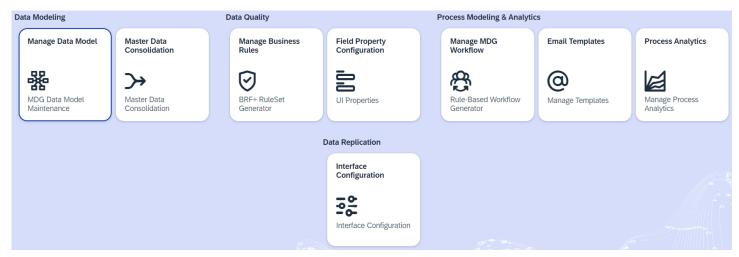


=	Menu	List of all areas of RDG to select from, view system information, or sign out. Manage Data Model Manage MDG Workflow Manage Business Rules Field Property Configuration Interface Configuration Master Data Consolidation Email Templates Process Analytics	
		System Information (1) Signout	
+	Add Custom Data Model Add Entity Add Change Request Type Add Interface Add Email Template	The + icon will open the screen to create a new data model, entity, change request type, interface, or email template, depending on which feature is being used	



Manage Data Model

RDG utilizes APIs to automate many steps that are required to extend a data model. RDG automates the entire process to create domain and elements through the executing of APIs. RDG derives all the necessary relationships when extending the data model with a custom entity and provides a relational model UI to visualize the data model to facilitate maintenance. With RDG you can accomplish the extension with a wizard-based guide on a visualized view of the data model. After Data Model extension RDG enables SMT mapping to map new entities or attributes from the backend tables to the UI.



Data Model Screen Buttons

Icon	Name	Use
+	Add Custom Data Model Add Entity	Create a new custom data model, entity, or attribute, depending on which feature is being used.
87	Edit Data Model	Take the data model out of view mode and into edit mode. While the data model is in edit mode, other users may not edit it.
×	Cancel Data Model Changes	Cancel any un-activated data model changes, Exit edit mode so other users can edit the data model.
>=	Show Messages	Display any messages about the status of the data model and progress of any changes
G	Refresh	Refresh the data model screen. If changes are completed, any success or error messages will be displayed after refresh.



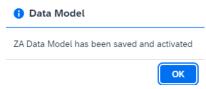
©	Check Data model	Check for any errors or warnings in the data model.	
*	Activate Data Model Activate the data model after changes been made		
0	Edit	Edits the selected entity or attribute. Standard entities and attributes are not editable.	
>>	Create SMT	Initiates process to map from source table to target UI after activation of an attribute	
5	Undo Delete	Undo the delete action of an entity or attribute before activating the data model	
Ф	Notification Bell	Indicates notifications have been received about the status of data model activation and SMT mapping. Available on applications running on cloud platforms only.	
©	View Entity/Attribute	View details for entity/attribute selected	

Create Custom Data Model

- 1. From the home screen, select 'Manage Data Model' and then click the icon
- 2. Enter information:
 - Data Model 2-character name beginning with a 'Z'
 - Description Description of the data model
 - Prefix/Namespace Add the prefix (optional)
 - Package Select a package from the drop-down



- 3. Select \checkmark to save and activate.
- 4. Select Transport. Successful message should appear as shown.





Create Type 1 Entity

- 1. Highlight the Data Model you want to extend and select Show Entities 👪
- Click Edit to put the data model in edit mode. Other users will be locked from editing the data model while
 you have the data model in edit mode. The lock is released when changes are activated or you click Cancel
 Changes to remove the data model from edit mode.
- 3. Expand the data model and highlight a row in the data model tree where your new entity will be created.
- 4. Select Add Entity + Enter Transport Request if prompted.







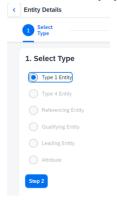




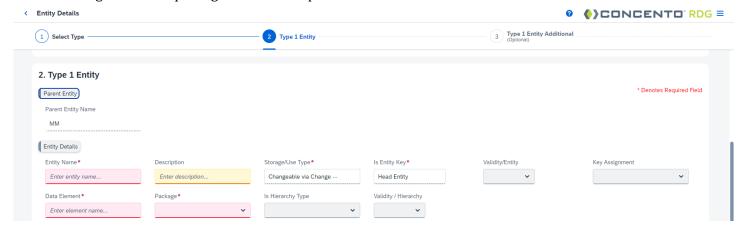




5. Select the Entity type radio button in the Entity Details screen and select next Step.



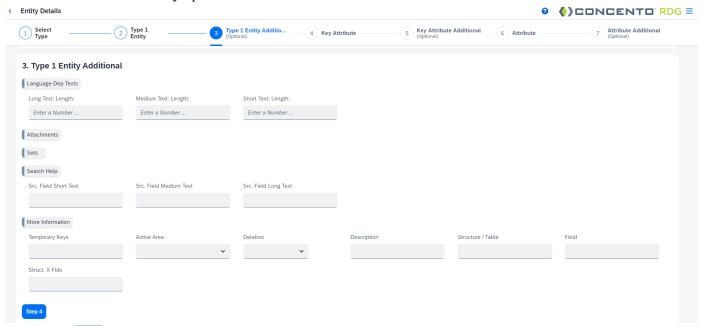
- 6. Enter entity details. This example shows creation of a type 1 entity. Entity details will vary based on the type of entity being created.
 - Entity Name Name of entity
 - Description Description of the entity (recommended but not required)
 - Data Element
 - Package Select a package from the drop-down



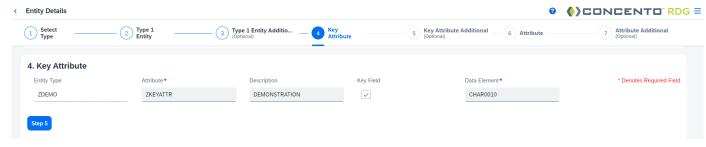


Additional fields are defaulted, but some may still be changed from default values.

- Storage / Use Type Changeable via CR (for all Type 1 entities) and disabled from further selection.
- Is Entity Key Type 1 entity is the head entity and disabled from further selection.
- Validity/Entity No Edition, applicable for Finance domain and data models only
- Key Assignment has a default value that can be changed
- Is Hierarchy Type has a default value that can be changed
- Validity/Hierarchy has a default value that can be changed
- 7. Select next Step to enter any optional details.

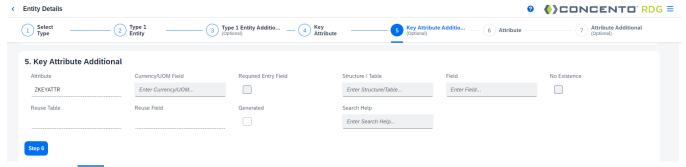


8. Select next step to add the Key Attribute. Choose a data element from the list, or enter a custom name to create a new custom data element.

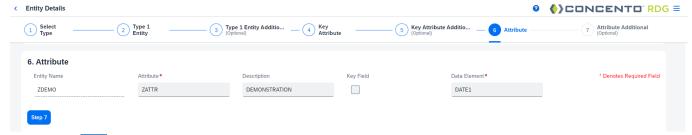




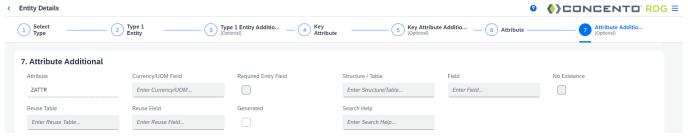
9. Select next step to add any optional details for the Key Attribute.



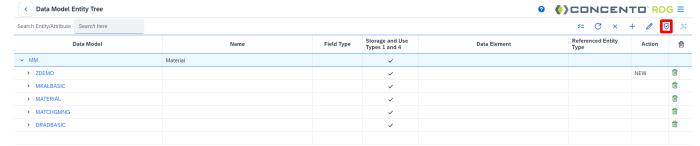
10. Select next Step to add the Attribute.



11. Select next Step to add any optional details for the Attribute.

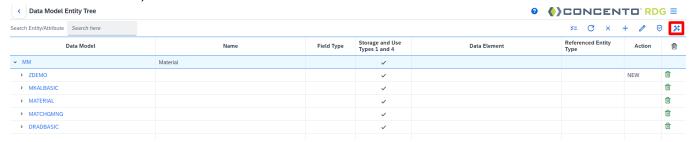


- 12. Click Insert.
- 13. Click the Check Data Model button.

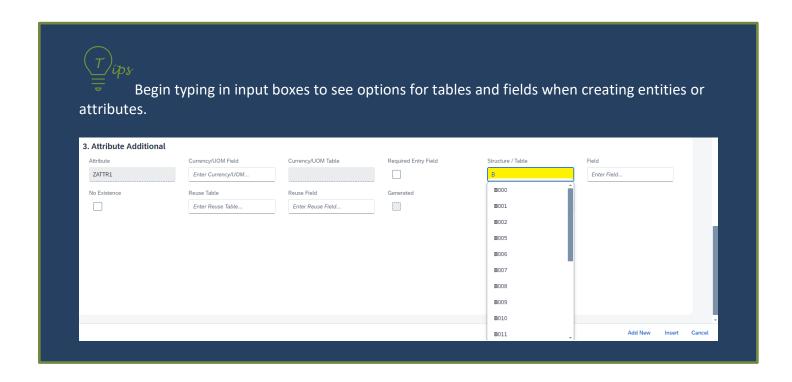




14. If there are no errors, click the Activate Data Model button.



15. Activation may take a few minutes. Click Refresh \bigcirc to get the status or click Show Messages $\stackrel{\checkmark}{=}$.

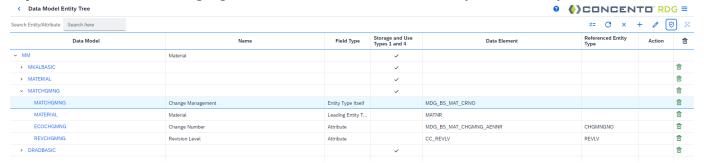




Create Type 4 (Child) Entity

A type 4 entity can be created as a child entity of a type 1 entity or another type 4 entity.

- 1. Click Edit to put the data model in edit mode. Other users will be locked from editing the data model while you have the data model in edit mode. The lock is released when changes are activated or you click Cancel Changes to remove the data model from edit mode.
- 2. Expand the data model and highlight a row in the data model tree where your new entity will be created.



3. Select Add Entity + Enter Transport Request if prompted.







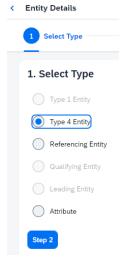








4. Select the Type 4 Entity radio button in the Entity Details screen and select next Step.



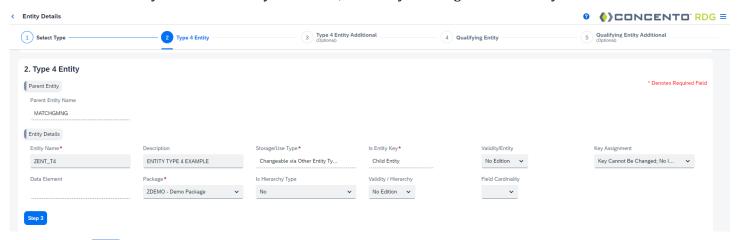
- 5. RDG automatically populates the following fields according to the properties of a Type 4 Entity
 - Storage/Use Type Changeable via Other Entity Type
 - Is Entity Key Child Entity
 - Key Assignment Key Cannot Be Changed

Enter required information

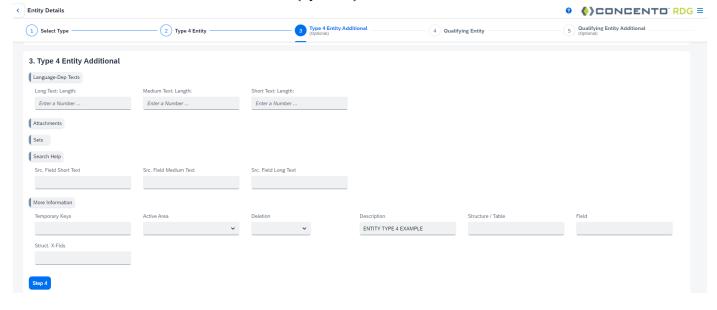
• Entity Name - Name of entity



- Description Description of the entity
- Package Select a package
- Field Cardinality if no cardinality is selected, the entity will be given cardinality 1:N

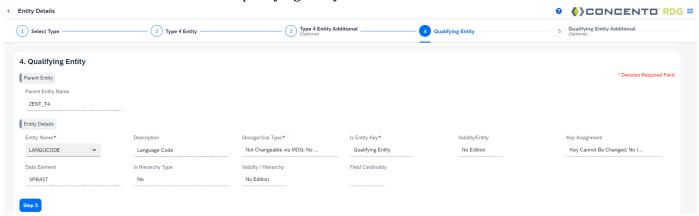


6. Click next step to add additional information (optional).

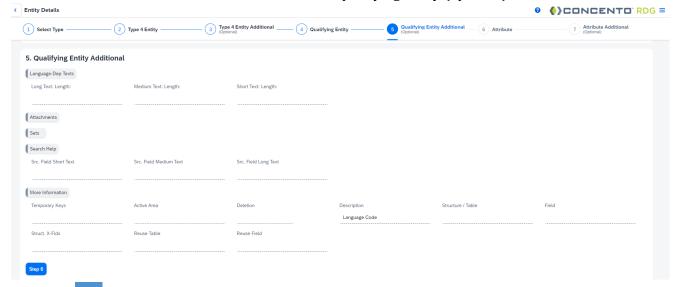




7. Click next Step to add a qualifying entity (not required if cardinality is 1:1). Select an entity name from the list or enter a new name to add a custom qualifying entity.



8. Click next step to add additional information for the qualifying entity (optional).

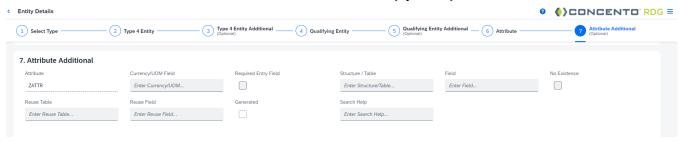


9. Click next step to add the attribute.





10. Click next Step to add additional information for the attribute (optional).



- 11. Click Insert.
- 12. Click Check Data Model
- 13. If there are no errors, click Activate Data Model to activate the data model and generate structures.
- 14. Activation may take a few minutes. Click Refresh C to get the status or click Show Messages $\overset{\checkmark}{=}$.

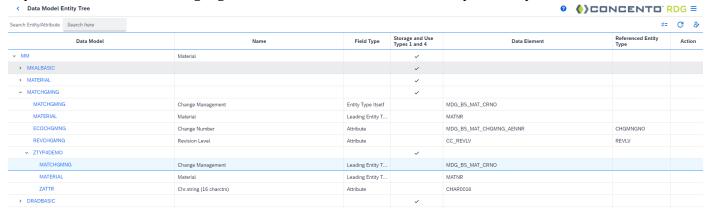


Qualifying, Leading, and Referencing Entities

A standard or custom entity made be added as a standard, leading, or qualifying entity. The process for each is similar. RDG restricts the addition of these entities to valid places in the data model tree. For example, a qualifying entity may only be added to a custom type 4 entity. A referencing entity may be added to either a type 1 or a type 4 entity. A leading relationship can be created between a custom type 1 entity and another custom or standard type 1 entity. RDG guides the user through the requirements to add each kind of relationship.

Create a Qualifying Relationship

- 1. Click Edit to put the data model in edit mode. Other users will be locked from editing the data model while you have the data model in edit mode. The lock is released when changes are activated or you click Cancel Changes to remove the data model from edit mode.
- 2. Expand the data model and highlight a row in the data model tree where your entity will be added.



3. Select Add Entity +. Enter Transport Request if prompted.







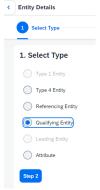






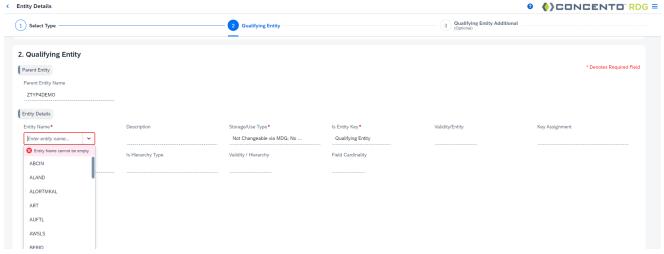


4. Select the Qualifying Entity radio button in the Entity Details screen and select next Step.

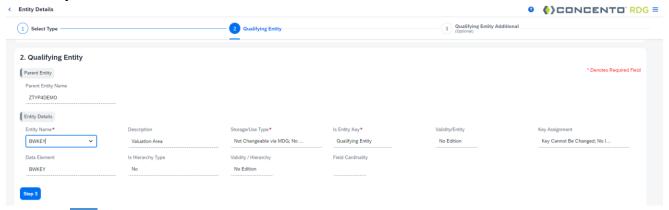




5. Choose an entity name from the list or enter a new name to add a new custom entity.



6. If you select an existing entity from the list, the information about the entity will be populated. If you entered a new entity name, fill in these details.



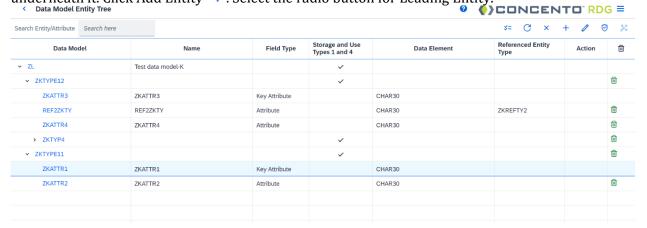
- 7. Click next Step to add additional information (optional).
- 8. Click Insert.
- 9. Click Check Data Model 🕏.
- 10. If there are no errors, click Activate Data Model to activate the data model and generate structures.
- 11. Activation may take a few minutes. Click Refresh \overline{C} to get the status or click Show Messages $\stackrel{\checkmark=}{=}$.



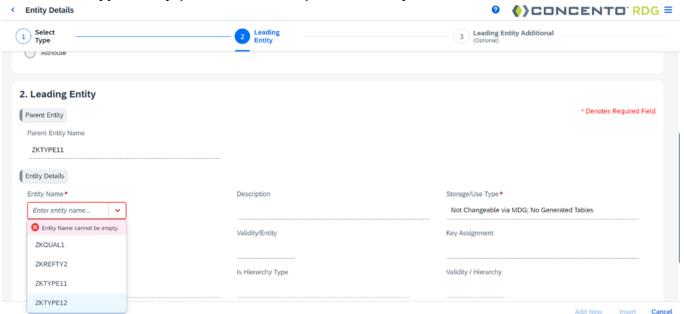
Create a Leading Relationship

A leading relationship can be created between two type 1 entities in the data model.

1. Choose a custom type 1 entity for which the leading relationship should be added and highlight a row underneath it. Click Add Entity +. Select the radio button for Leading Entity.



2. Select another type 1 entity (custom or standard) from the Entity Name list. Click Insert.





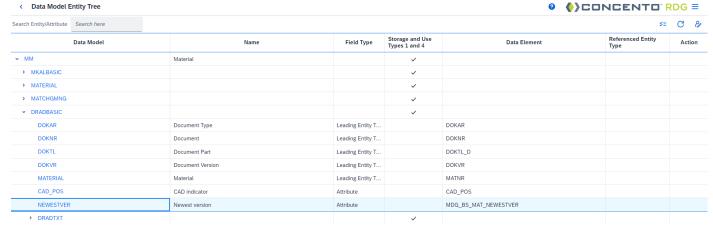
3. A leading relationship is created between the two type 1 entities.



- 4. Click Check Data Model ♥.
- 5. If there are no errors, click Activate Data Model to activate the data model and generate structures.
- 6. Activation may take a few minutes. Click Refresh \bigcirc to get the status or click Show Messages $\stackrel{\checkmark}{=}$.

Create an Attribute

1. Highlight the row in the data model tree where your custom attribute should be added.



- 2. Click Edit to put the data model in edit mode. Other users will be locked from editing the data model while you have the data model in edit mode. The lock is released when changes are activated or you click Cancel Changes to remove the data model from edit mode.
- 3. Select Add Entity + . Enter Transport Request if prompted.









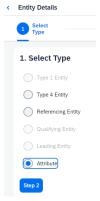




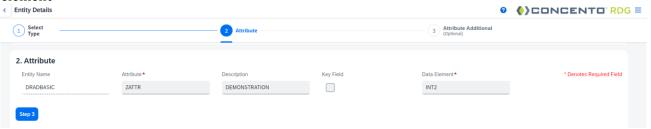




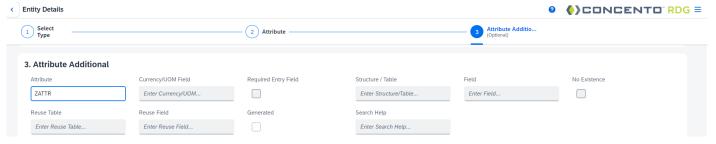
4. Select the Attribute radio button in the Entity Details screen and select next Step.



- 5. Enter attribute details:
 - Attribute Key Attribute or additional attributes begin with a 'Z'
 - Description Description of attribute
 - Data Element Choose a data element from the list, or enter a custom name to create a new custom data element



6. Select next step to enter additional details for the attribute (optional).



- 7. Click Insert.
- 8. Click Check Data Model 🕏
- 9. If there are no errors, click Activate Data Model 🥻 to activate the data model and generate structures.
- 10. Activation may take a few minutes. Click Refresh C to get the status or click Show Messages F .
- 11. If SMT mapping is applicable for the attribute you created, complete the SMT mapping process after activation.



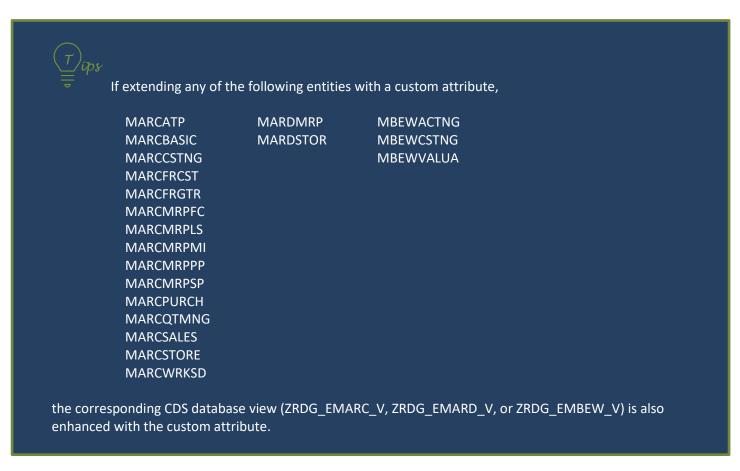
SMT Mapping

After a custom attribute for a standard entity is created and activated in either Business Partner or Material data models, a table for SMT mapping will be shown if applicable. (SMT mapping is not relevant for attributes created under all entities.) An SMT mapping table will also be shown for attributes created under custom type 4 entities that have SMT relevant parent entities.

- 1. After activation is complete, choose a package.
- 2. Complete the mapping table by selecting a mapping step and structure to extend for each row. Source and Target will automatically populate. Click → at the end of each row.



3. Click Done. Processing may take some time to complete. Click Refresh ^ℂ when ready and receive success messages. If running the application using a cloud platform, additional notifications will be given to help you track the process.





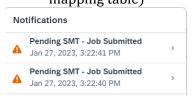
Data Model and SMT Notifications on Cloud Platforms

When running the application on a cloud platform, additional notifications will be shown to help you track the progress of data model activation and SMT mapping. A notification bell at the top of the screen shows the number of any unread messages.

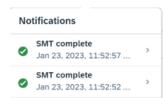
Types of Notifications

Data model activation initiated Notifications Pending activation Data Model BP activation request by TBATTAGLIN and can take time to complete.

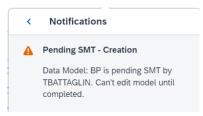
SMT mapping has been submitted (one notification for each row of the mapping table)



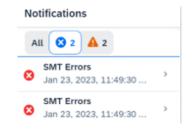
SMT mapping complete success message (one notification for each row of the mapping table)



SMT mapping creation is pending



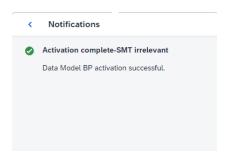
Errors in the SMT mapping process

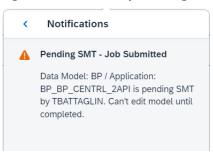


Data model activation success message for changes not relevant to SMT mapping

<	Notifications
>	Activation complete-SMT irrelevant
	Data Model BP activation successful.

Detailed information for each message can be viewed by clicking the arrow.



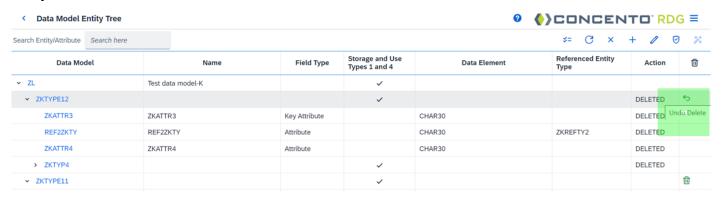




Undo Delete

If an entity or attribute is selected for deletion, the user may undo this action so that the entity or attribute will not be deleted when the data model is activated with other changes. To undo the delete, click on the "Undo Delete" option available against the Deleted Action.

Undo delete can be performed at the main entity level or attribute level. Performing undo delete at main/parent entity level cancels the Deleted Action for all of its child entities and attributes.



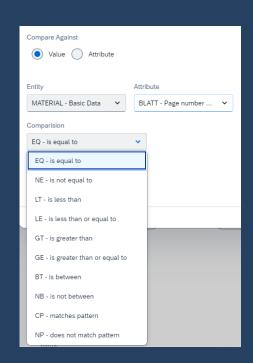




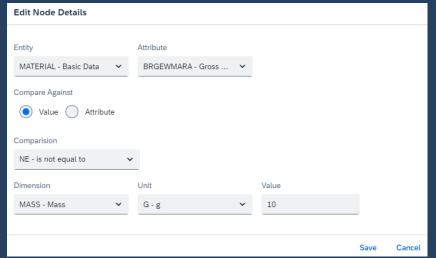
Comparison operators can be used in Parallel/Dynamic Workflow, Business Rules, and Field Properties to set conditions based on attribute values.

Comparison operators LT, LE, GT, GE, BT, and NB for validating attributes are applicable to attributes with numerical values only.

For CP – matches pattern or NP – does not match pattern, use * as a wildcard character.



When creating single value rules where the attributes used in the conditions involve units, such as



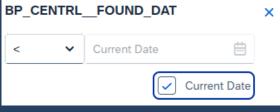
the only valid comparisons are

LT – is less than

NE - is not equal to

LE – is less than or equal to

Comparisons are also valid for dates, including Current Date.

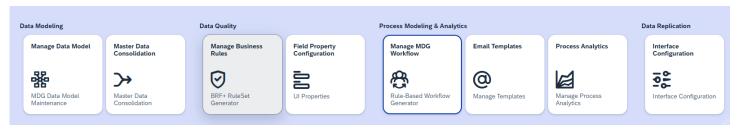




Manage MDG Workflow

RDG provides the solution to bridge the gap with a visualization of the BRF+ workflow into an intuitive graphical format. The application allows the users to easily create, maintain and copy change request types and corresponding workflows which will in turn translate to BRF+ table through APIs.

Users can implement sequential, dynamic, parallel, and follow-up workflow steps for complex scenarios in RDG. eliminating the otherwise tedious steps of workflow maintenance. Users having no prior experience in BRF+ application, Decision Tables and ABAP programming can easily handle the steps included in the guide as RDG automates the entire implementation of BAdIs and rule-based workflow in BRF+ to handle Dynamic and Parallel workflow steps and other specialized scenarios in a simple and intuitive screen.



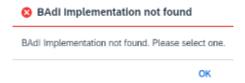
RDG provides the following features and functions.

Feature/Function	Description	
Standard Workflow	Single user/approver nodes	
Dynamic Workflow	User/approver condition-based routings	
Parallel Workflow	User/approver condition-based routings requiring parallel	
	processing	
Reroute Revision	Rerouting processing directly back to rejecting	
	user/approver	
Skip Approver	Condition-based routing allowing to skip the approval	
	process within a Dynamic node	
Follow-up Change Request	Automatic creation of a change request for a subsequent	
	task that is required to complete the business process	
Copy Change Request Type and Workflow	Create change request type by copying from another	
	change request type and import a workflow for reuse	
Enforce 4 Eyes Principle	Prevent user submitting a request from approving the	
	request	

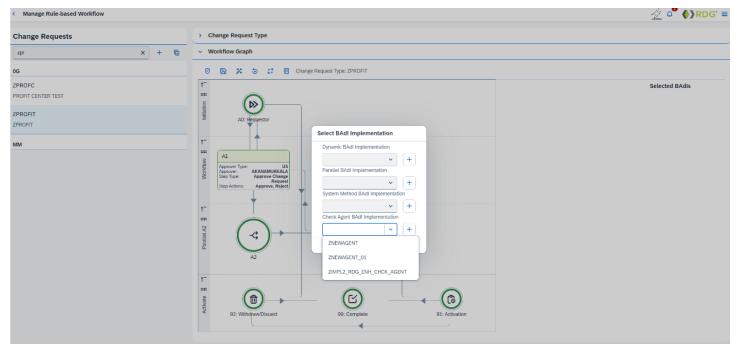


BAdi Implementations in Workflows

Some features used in workflows require associated BAdi implementations. When activating any workflow, if BAdi implementation(s) are required and have not previously been created/selected for that workflow, a message box will appear to create/select the necessary BAdis.



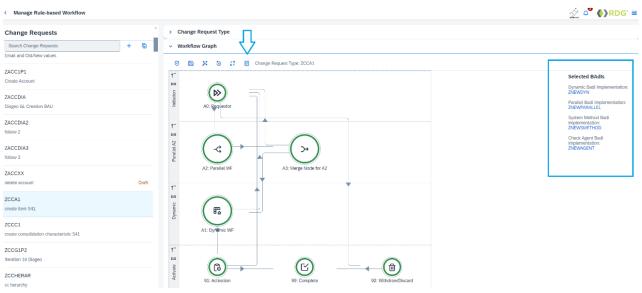
Use the drop-down box to select an existing BAdi, or click the + button to create a new BAdi. BAdi names must start with Y or Z.





BAdis Required for Workflow Features					
	Dynamic BAdI Implementation	Parallel BAdI Implementation	System Method BAdI Implementation	Check Agent BAdI Implementation	USMD_RULE_SERVICE
Parallel	Х	Х	Х		
Dynamic	X				
No Approval Required (in dynamic workflow)	Х		Х		
Reroute Revision			Х		
Follow-up Change Request			Х		
System Method			Х		
Email Template				Х	
Four Eyes Principle					Х

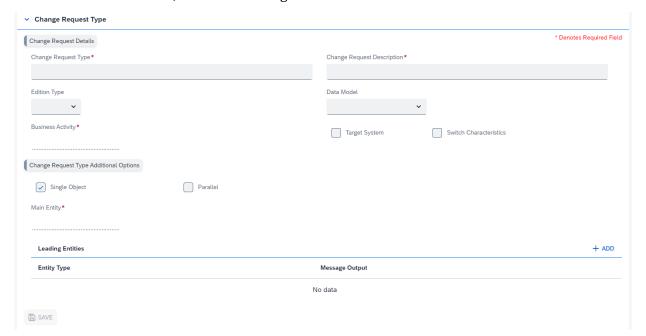
To view BAdis used in a workflow that has already been activated, select Show/Hide BAdis list.





Create a CR Type

1. From the home screen, select the 'Manage MDG Workflow' tile and then click the | + | ico



- 2. Enter the required details and select
 - CR Type
 - Description
 - Data Model
 - Edition Type (for FI data models)
 - Business Activity
 - Choose Single Object/Parallel
 - Main Entity
 - Leading Entities (for change request types in Business Partner and Material data models, leading entities will default from the selected Data Model. For other data models, add leading entities as required.
- 3. Create or select transport request.
- 4. Confirmation message for the CR will be displayed. Select OK to continue.
- 5. A workflow template will be displayed for the CR.



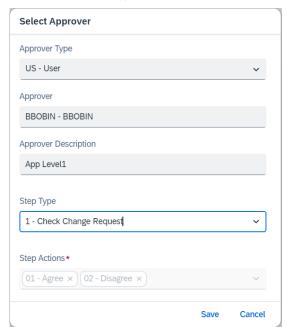


Create a Standard Workflow

1. Select Requestor icon, then Add 🛨.



- 2. Select add Approver Approver to add the necessary workflow approver details and save:
 - Approver Type
 - Approver
 - Approver Description (optional). If entered, the description will be included with the name of the workflow step for use in business rules and field properties.
 - Step Type (Step Actions defaults from Step Type selection)



3. Select Edit Connection by clicking on the





4. Add the necessary Action Targets details and save. Repeat the process for all approval nodes.

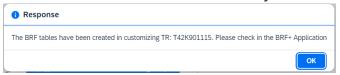
Edit Action Targets



5. Select Validate Workflow button to validate the workflow. A validation message will be displayed if the work flow path is complete.



6. Save to complete the workflow creation and BRF table generation. A confirmation message will be displayed once BRF tables have been successfully created.



7. Repeat the steps above for additional approval levels as needed.



Parallel Workflow

In a parallel workflow, a change request is sent to multiple approvers parallelly in order to be approved. All approvers must approve the change request for the process to be completed. The approvers the change request is sent to are based on meeting whatever conditions are selected in the table in the opening parallel node. These conditions can be based on attribute values or attribute changes.

Create Opening Parallel Node

A parallel workflow may have additional approvers inserted into the process. For this reason, it has opening and closing nodes, to allow for additional approvers to be added between them if required.

1. From the Change Request select the workflow position and Parallel Flow

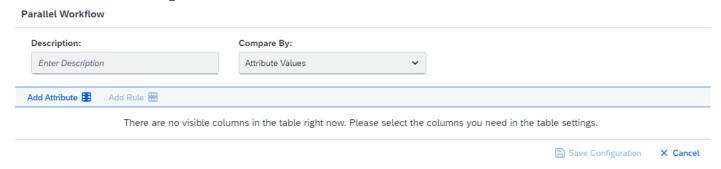


2. Enter Description for the Parallel Workflow (optional). If entered, the description will be included with the name of the workflow step for use in business rules and field properties.

Parallel Workflow Based on Attribute Values

The workflow may be configured to compare by attribute values *or* compare by attribute changes. If comparison by attribute values is required, follow these steps.

1. Compare by Attribute Values will already be selected as the default option. After attributes are added, this selection cannot be changed.



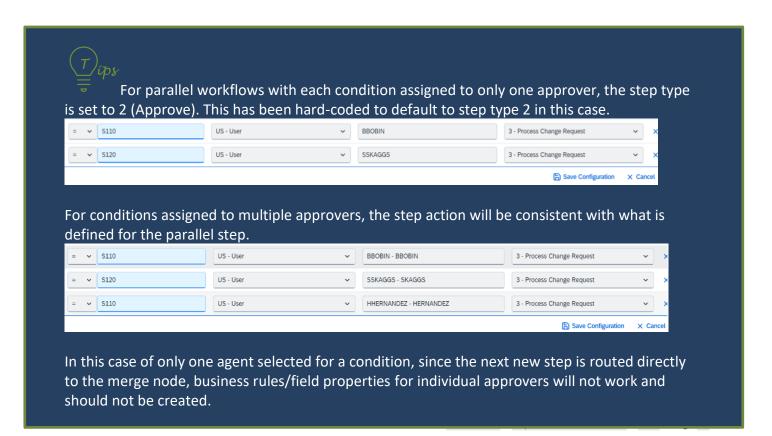


- 2. Add Attribute Add Attribute and Entity/Attribute to be used as the condition for the Parallel workflow. Select Add Column.
- 3. Select Add Rule Add Rule Enter details for rule. Select Add Rule to add additional rules. Enter the required information for each row.



For this Parallel workflow scenario, for each state selected, the change request will go to both approvers listed. Additional states and approvers may be added as required. If the value of the attribute RFE_POST in the change request is not given in the table, an error in the workflow process will result, so it is imperative that all possible values are included in the table.

Select Save Configuration , then select TR and Package to store the changes

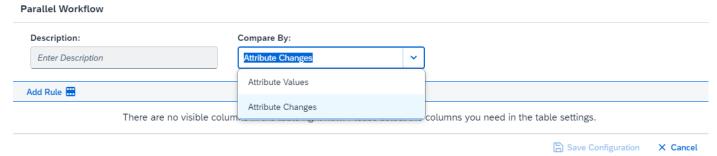




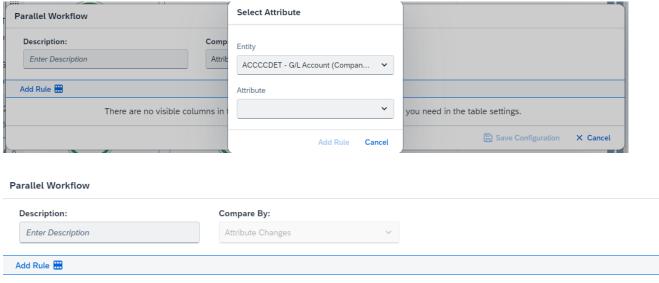
Parallel Workflow Based on Attribute Changes

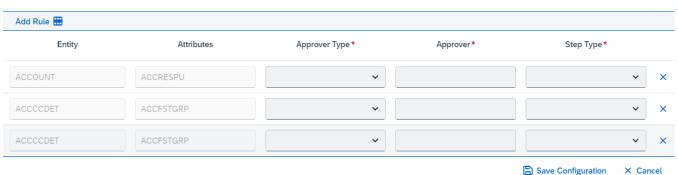
If comparison by attribute changes is required, follow these steps.

1. Select Attribute Changes from the Compare By box. After attributes are added, this selection cannot be changed.



2. Add Rule Add Rule and select Entity/Attribute to be used as the condition for the Parallel workflow. Repeat to add as many attributes as required. Enter the same attribute multiple times if multiple approvers are required for that condition.







3. Enter Approver Type, Approver, and Step Type for each row.

Parallel Workflow Description: Compare By: Enter Description Add Rule # Entity Attributes Approver Type * Approver* Step Type 50000076 - RDG LVL1 DAT... S - Position 2 - Approve Change R. ACCCCDET ACCFSTGRP C - Job 50000113 - VALIDATOR JO ... 2 - Approve Change R.. ACCCCDET ACCESTGRE AG - Security Role /AIF/DATA FIXER - ROLE: ... 2 - Approve Change R. Save Configuration X Cancel

For this parallel workflow scenario, if the value of ACCRESPU changes before this point in the approval process, the change request will be routed to the approver in the first row. If the value of ACCFSTGRP changes, the change request will be routed to both of the approvers in the last two rows.

Select Save Configuration , then select TR and Package to store the changes.

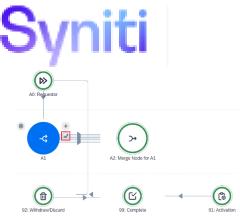
Connect to the Closing Parallel Node

1. After saving the conditions, both the opening and closing nodes of the parallel workflow can be seen (here shown as A1 and A2). If required, additional approvers may be added from A1. The workflow will merge together at A2.



- 2. Connections from the Requestor node can be defined as described in the previous Standard Workflow.
- 3. Add connections from the opening parallel node (A1) to any additional approvers between A1 and A2, or directly to A2 if there are no other approvers between them.

In this case there are no additional approvers, so connections are made directly from A1 to A2. Select to create the parallel node connections.



Edit Action Targets:

- Assign a sign and status for each step sign, in this case
 - Positive for CR approvals
 - o Negative for rejections that can be sent back to the Requestor for revision
- Select Save

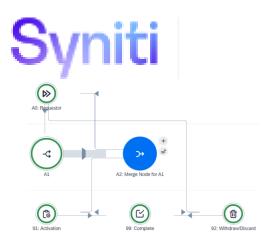
Edit Action Targets



Edit Merge Node Action Targets:

- Assign a sign and status for each step sign, in this case
 - Positive for CR approvals
 - Negative for rejections that can be sent back to the Requestor for revision
- Select Save





- 4. Create connections between the parallel merge node (A2) and any additional approvers, or to Activation. In this case there are no additional approvers.
- 5. Validate the workflow [♥] . A confirmation message will be displayed if a successful workflow path has been created.



6. Save to complete the workflow and generate BRF tables. Assign the TR and package to save the changes and activate the workflow.

Dynamic Rules

In a dynamic workflow, a change request is sent to an approver based on whatever conditions are selected in the table for the dynamic node. These conditions can be based on attribute values or attribute changes. If the data in the change request meets more than one condition in the table, the change request will be routed to the approver given first in the table, so the conditions should be arranged according to priority. If none of the conditions in the table are met, the change request will be routed to the approver in the default row, the first row in the table.

1. On the Requestor node select + then by Dynamic Rules to add node for Dynamic Rules



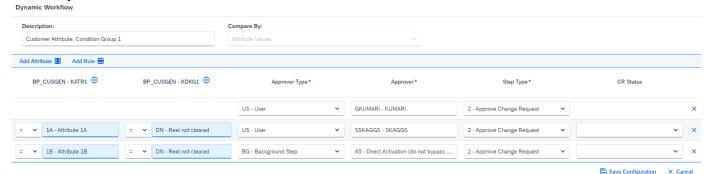
2. Enter Description (optional). If entered, the description will be included with the name of the workflow step for use in business rules and field properties.



Dynamic Workflow Based on Attribute Values

The workflow may be configured to compare by attribute values *or* compare by attribute changes. If comparison by attribute values is required, follow these steps.

- 1. Compare by Attribute Values will already be selected as the default option. After attributes are added, this selection cannot be changed.
- 2. Add Attribute and Entity/Attribute to be used as the condition for the workflow. Select Add additional attributes as required.
- 3. Select Add Rule Add Rule for each row required and enter details for each row. The first row is called the default row and does not contain any attribute values. It is used if the change request does not meet any of the other conditions.
 - Attribute Values
 - Approver Type
 - Approver
 - Step Type
 - CR Status (optional). If a CR status is selected here, it will override any values selected in the Connections table for this node. CR Status is not selectable here for the default row of the table, so if a particular status is required for the default row, it should be selected in the Connections table.



Select Save Configuration . Then choose a transport request and package to save the changes.

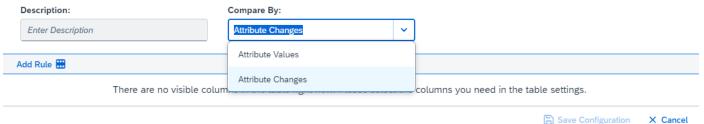
- 4. Edit connections from each node as described in standard workflow section.
- 5. Validate other dynamic workflow and then Save
- 6. Once the workflow is saved, BRF decision tables are created and populated automatically. Decision tables are populated for Rule Based Workflow allowing maintenance even for complex scenarios in RDG with no prior knowledge in ABAP, BRF+ configuration and BAdI implementations.



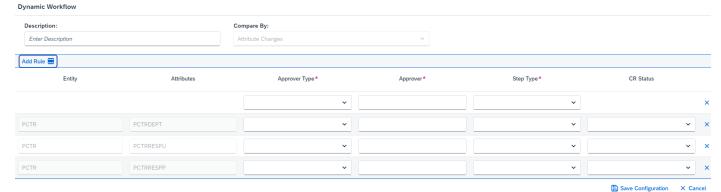
Dynamic Workflow Based on Attribute Changes

The workflow may be configured to compare by attribute values *or* compare by attribute changes. If comparison by attribute changes is required, follow these steps.

1. Select Attribute Changes from the Compare By box. After attributes are added, this selection cannot be changed.

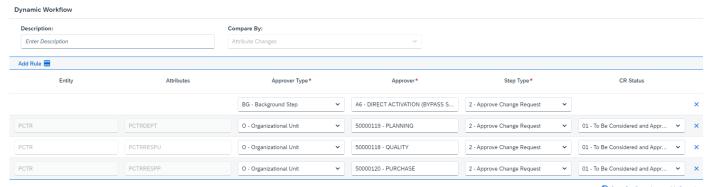


2. Select Add Rule Add Rule for each row required. Choose entity/attribute and click Add Column. Add as many rows as required.



- 3. Enter details for each row. The first row is called the default row and does not contain any attribute values. It is used if the change request does not meet any of the other conditions.
 - Approver Type
 - Approver
 - Step Type
 - CR Status (optional). If a CR status is selected here, it will override any values selected in the Connections table for this node. CR Status is not selectable here for the default row of the table, so if a particular status is required for the default row, it should be selected in the Connections table.





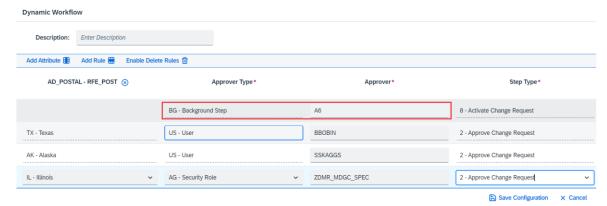
In this workflow, if the value of PCTRDEPT, PCRTRESPU, or PCTRRESPP has changed, the change request will be routed to the approver in that row. (It will only be routed to one approver: the first match that is found in the table. For this reason, it is important to list the attributes in order of priority in the table). If none of these attributes were changed, the change request will be routed to the approver in the first, default row.

- 4. Select $\stackrel{igspace}{\Box}$ Save Configuration . Then choose a transport request and package to save the changes.
- 5. Edit connections from each node as described in standard workflow section.
- 6. Validate the dynamic workflow then Save
- 7. Once the workflow is saved, BRF decision tables are created and populated automatically. Decision tables are populated for Rule Based Workflow allowing maintenance even for complex scenarios in RDG with no prior knowledge in ABAP, BRF+ configuration and BAdI implementations.

Background Step

In a dynamic rule, a background step may be selected for a condition related to selected attribute(s). An example of this would be to automatically approve a change request for a default or specific value.

- 1. Create a dynamic workflow as previously described.
- 2. To create a Background Step, default action in the follow case:
 - a. Approver Type: select BG Background Step
 - b. Approver: enter/select a value
 - c. Select a Step Type for the Background Step

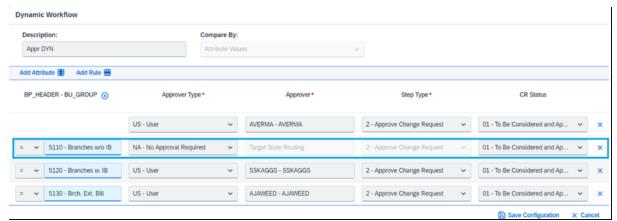




- 3. If Background Step is selected, there will be three options for Approver.
 - a. A5 Direct Activation (do not bypass snapshot)
 - b. A6 Direct Activation (bypass snapshot)
 - c. R8 Rollback
- 4. Save Configuration, validate the workflow, and then save the changes to complete the workflow creation process.

No Approval Required (Skip Approver)

In the dynamic node of a workflow, if an approver needs to be skipped or bypassed in the approval process based on a predetermined condition, the skip functionality can be used for that particular conditional approval. This bypass feature can be enabled by selecting the User Type as NA - No Approval Required during the dynamic node definition step in conjunction with the driving attribute value to enforce the bypass. This option can be used for workflows that compare by attribute values or attribute changes.



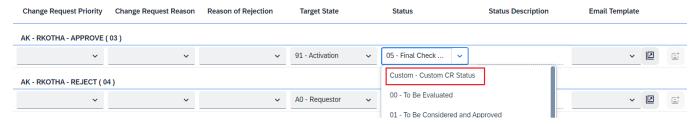
If NA – No Approval Required is selected, Approver and Step Type values will be defaulted. CR Status is always optional.

Click to save the workflow as a draft, then click to activate it.



Custom Status

A custom status can be created and assigned to a workflow step to make the workflow step more meaningful.



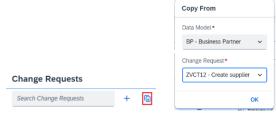
- 1. Select Custom Custom CR Status in the Status column
- 2. Enter details for the Custom Status:
 - Status: 2 characters
 - Status Description
 - Assign action for status



Copy Change Request

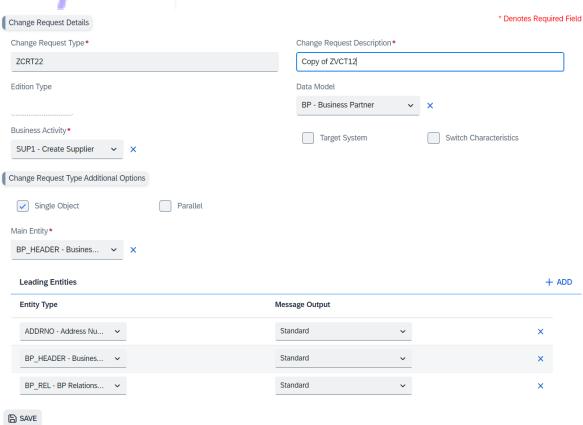
Change Request creation can be accelerated using a reference CR Type along with the associated workflow.

1. Select the copy button. Then select the Entity Type and CR Type from which to copy from.



2. Enter the change request type name and Description and Save. Other details are copied from the reference change request type.





3. Select TR and package to save changes. If successful a confirmation message will be displayed.



4. The Workflow Graph will also be copied and displayed. The BRF workflow tables are also updated with the settings from reference CR Type.

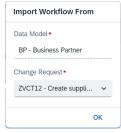




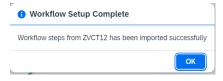
Import Workflow

Instead of copying an entire change request type, alternatively just a workflow graph can be imported. Workflows can be imported from a reference CR Types to accelerate the workflow creation and avoid tedious process of manually updating BRF decision tables to accomplish the same goal.

- 1. Create a new CR Type as described in the Standard Workflow process previously.
- 2. Once the new CR Type is created, select the Import Workflow button
- 3. Select the Data Model and reference CR Type from which the workflow will be imported.



4. Select a TR and package to save the changes. A confirmation message will be displayed upon successful import of the workflow.



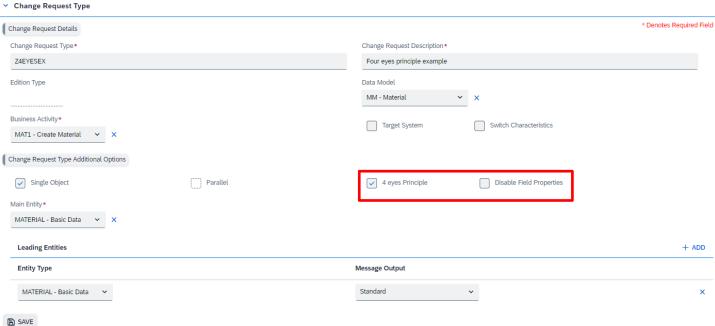
Four Eyes Principle

The four eyes principle prevents a requestor from processing or self-approving a change request that they have submitted. It works by removing the requestor from the set of possible authorized users. The requestor is also removed from the group of authorized users in

- A role
- An organizational unit
- A job
- A position

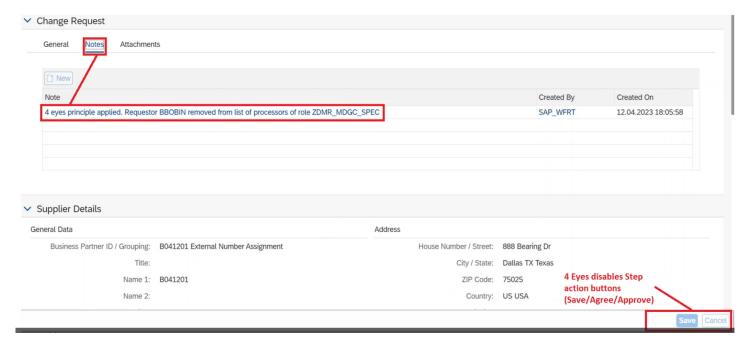
Four eyes principle can be applied to any change request type if selected at the time the change request type is created by selecting the check-box. If the check-box for four eyes principle is selected, the option to disable field properties for this change request type is offered.





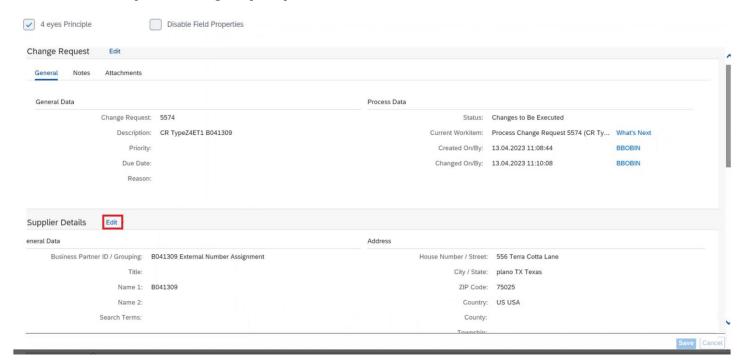
The workflow graph can be completed using any configuration of approvers and approver types, including parallel and dynamic nodes.

If the four eyes principle has been enabled, there will be a note in the change request header that the requestor is not able to approve the change request. Any buttons for Save/Agree/Approve will be disabled for the requestor.

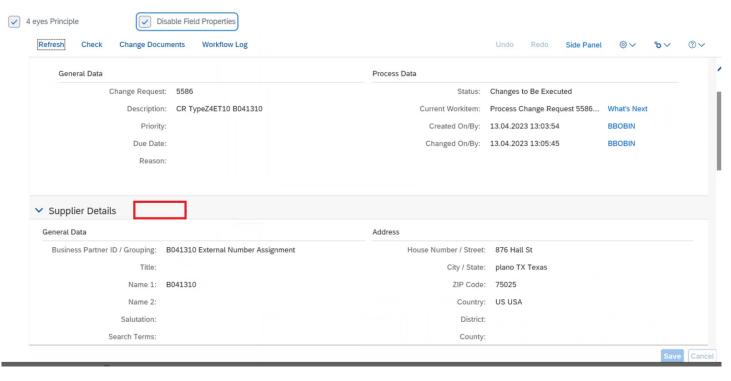




If Disable Field Properties has not been selected, the Requestor is able to edit the change request if that option is available at that step of the change request process.



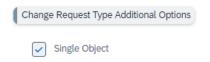
If Disable Field Properties has been selected, the Requestor will not able to edit the change request even if that option is available at that step of the change request process for other users.



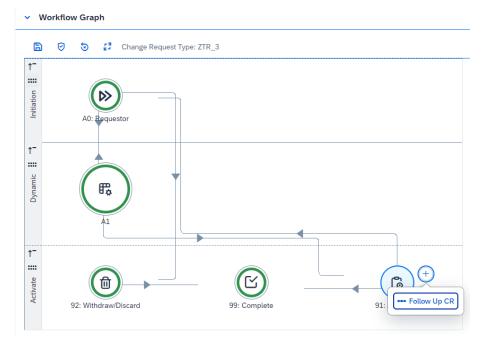


Follow Up Change Request

To add a follow change request to a workflow, the change request type must be Single Object. Ensure that the Single Object box is checked in the Change Request Details.

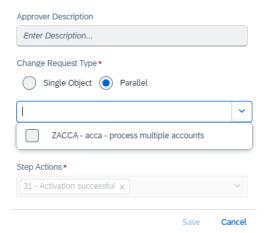


In the workflow graph, choose the Activation node and click the 🛨 button. Select Follow Up CR.



In the dialogue box, a description for the follow up change request is optional.

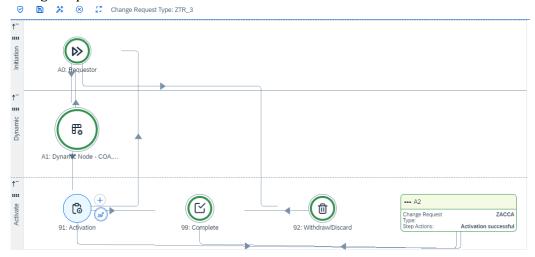
Choose whether your follow up change request type is a Single Object or Parallel change request type. Choices will be listed based on your selection.



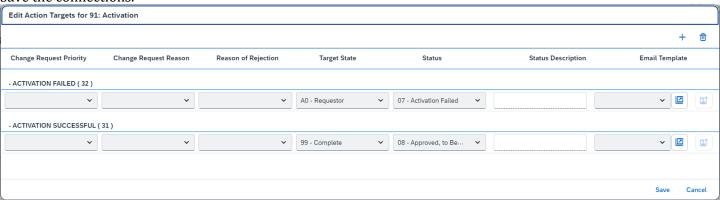


Click Save. A node for the follow up change request will be added to the workflow graph.

At the Activation node, click the button to edit the connection between the Activation node and the follow up change request.



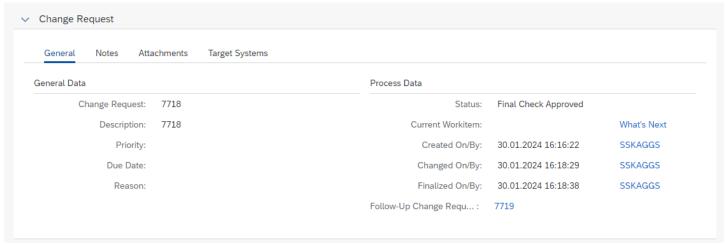
Save the connections.



Click to save the workflow graph. Then click to Activate it.

When the change request has been activated, a link to the follow-up change request will be shown in the change request header information.

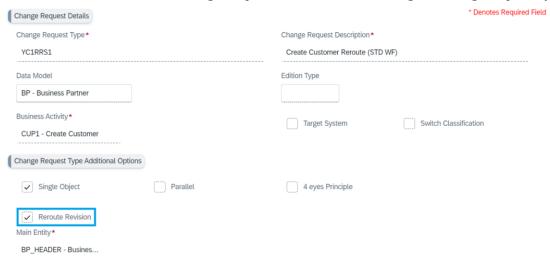




Reroute Change Request

When processing a change request, an approver may reject the request and send back for revision. After the change request is revised, it can be sent directly back to the approver who rejected the request by bypassing any intermediate users/approvers in the workflow.

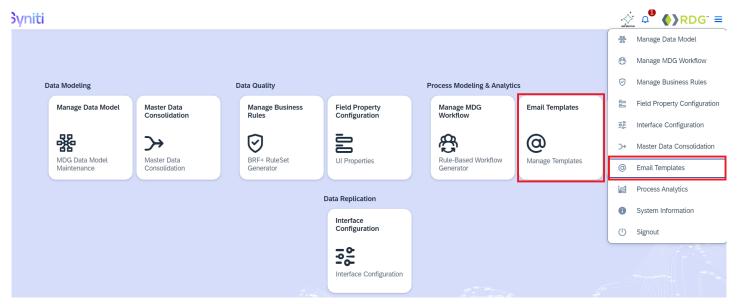
In order to enable a workflow to be rerouted to the approver who rejected a change request, check the checkbox for Reroute Revision in the Change Request Details when creating the change request type.



Click to save the workflow as a draft, then click to activate it.



Email Templates



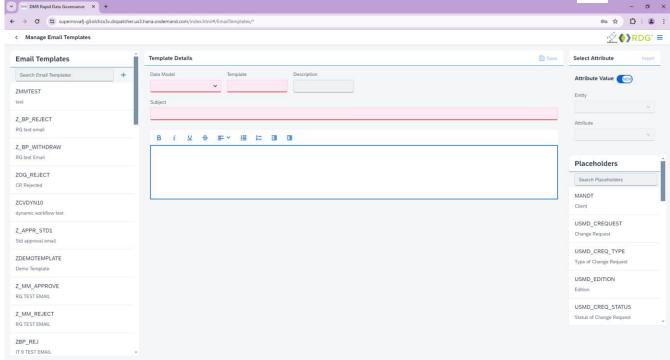
Email templates can be created and added to any workflow wherever required in the approval process. By creating an email template and including it in a change request type workflow, an email will automatically be generated and sent to the appropriate person(s) when a change request is created or at any point designated in the workflow.

Go to Open Application Menu and select Email Templates or choose the Email Templates tile from the Home page.

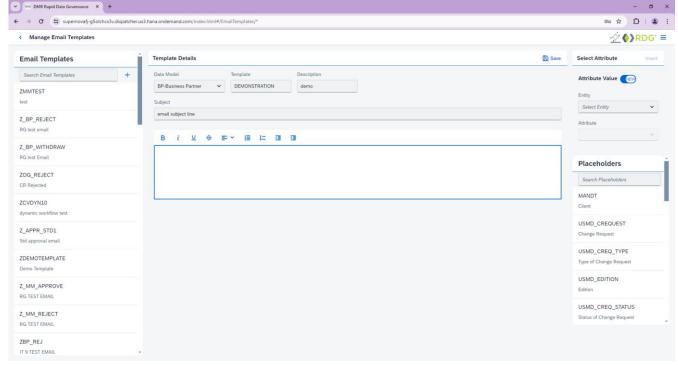


Create a New Email Template

1. Existing templates will appear in the column on the left. To create a new template, click the |+| button.



Required information for a new template includes Data Model, Template name (not required to begin with Y or Z), and Subject (of email). Description is optional. Fill in these fields at the top of the template.

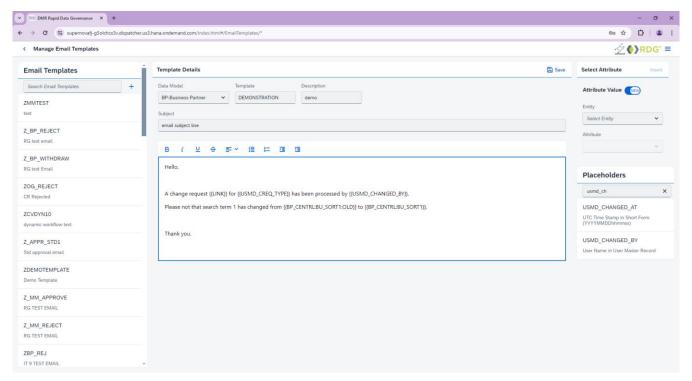




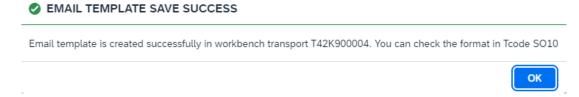
3. Write the text of the email in the editor below the template details.

A variety of placeholders are available on the right side of the screen to customize the email with the header data of the change request. A link to the change request can also be provided to the recipient for easier approval. If NOTES is selected, text from all of the notes that have been added to the change request will be included in the email. Alternatively, if LAST_NOTE is selected, only the most recent note added to the change request will be included in the email.

Any attribute's value may also be included. Attribute values may be old or new. If Old is selected in the toggle when adding the attribute, the previous value of the attribute will be included in the email if the attribute value was changed. If New is selected in the toggle when adding the attribute, the updated value of the attribute will be included in the email.



4. Click the Save button in the top right above the template details to save the new template. Choose an appropriate Transport Request. After saving, use Tcode SO10 to view the format of the text in SAP.



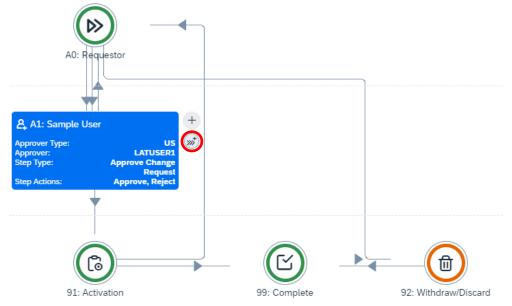


Use an Email Template in a Workflow

Choose the Manage MDG Workflow tile from the RDG home screen.



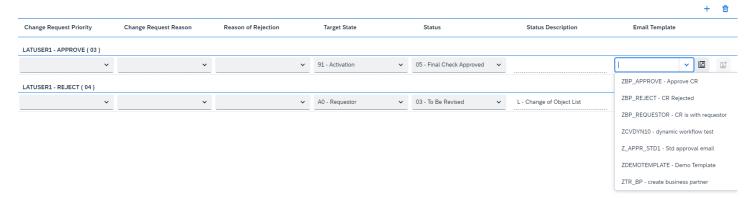
2. Choose an existing change request type or create a new one. Click the Edit Connections icon in the Workflow Graph at whatever point an automatically generated email is desired.



3. At each action where an email is desired, click the Email Template drop-down box for that row and choose a template. Clicking the Manage Email Templates icon next to this drop-down box will display the selected template details.

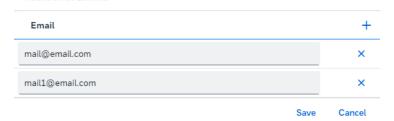


Edit Action Targets



4. Click Add Email to add email addresses. Add as many addresses as required.

Additional Emails



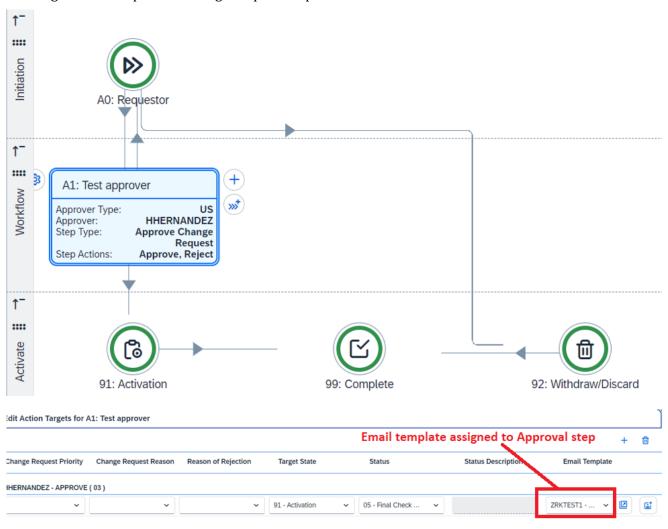
5. Save the workflow.



Adding Change Request Attachment to Email

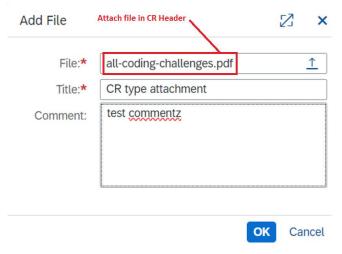
Files attached to a change request can be sent along with an email notification following the completion of a change request step. An email template must be assigned in the connection node triggering the email. The resulting email attachment can be verified in transaction code SOST.

1. Assign Email template to Change Request step

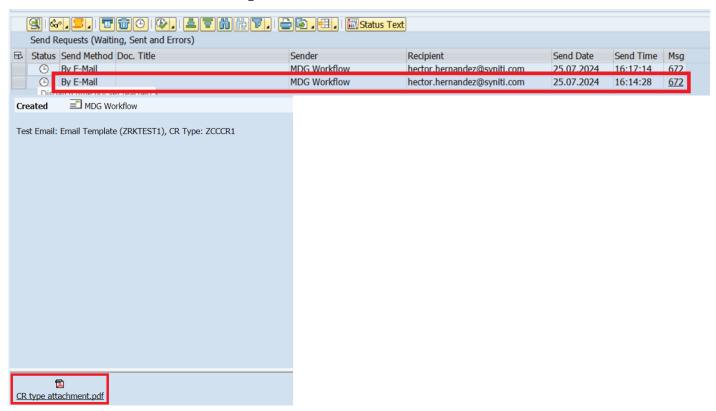




2. Attach file in CR Header



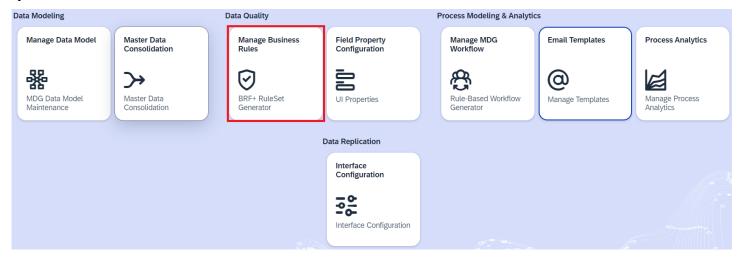
- 3. Approve Change Request to trigger email notification.
- 4. Validate email and attachment using t-code SOST.



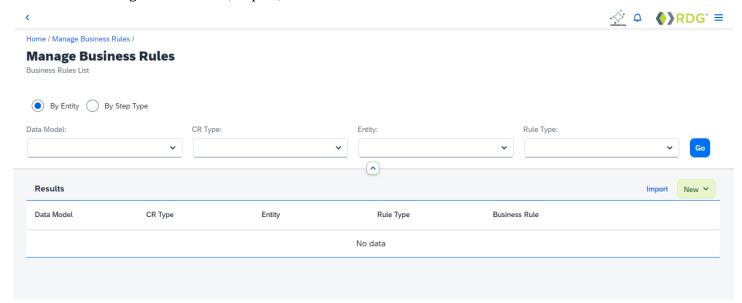


Manage Business Rules

RDG provides breakthrough technology to bridge the gap to the known BRF+ MDG limitation to allow cross-entity checks and enrichment in Business Rule Management. RDG provides simple UI control for users to maintain Business rules, automating configuration steps and executing APIs to create them as BRF+ rules in the MDG system.



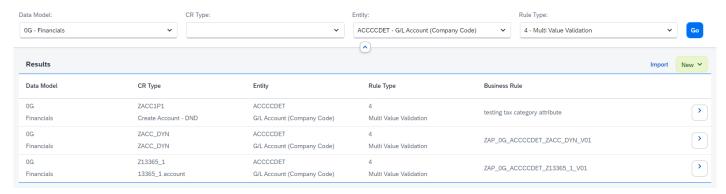
On the main business rules screen, first select By Entity or By Step Type. By Entity is the default selection. Then filter to see existing business rules, import, or create new rules.





Filtering Existing Business Rules

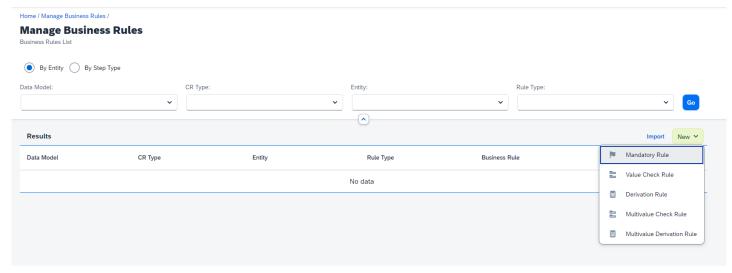
Any combination of the four search filters (Data Model, CR Type, Entity, and Rule Type) can be used to search for existing rules, provided at least one of either Data Model or CR Type is selected. Click Go to see all of the rules created that meet the filter criteria.



Click the arrow at the end of the row to see individual rule details.

Creating New Business Rules by Entity

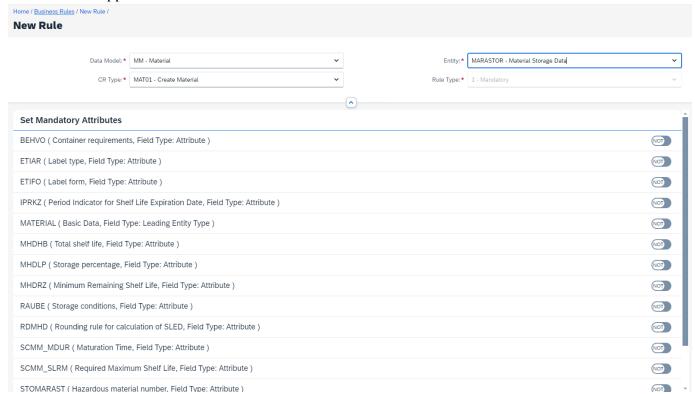
To create a new rule, click the New button on the right side of the screen. Five types of rules can be created by entity. Select the type required.





Mandatory Rule

1. Choose the Data Model, CR Type, and Entity at the top of the screen. After selecting the Entity, a list of attributes will appear at the bottom of the screen.



2. Select the attribute to set as Mandatory. Click the toggle to the right of the attribute.



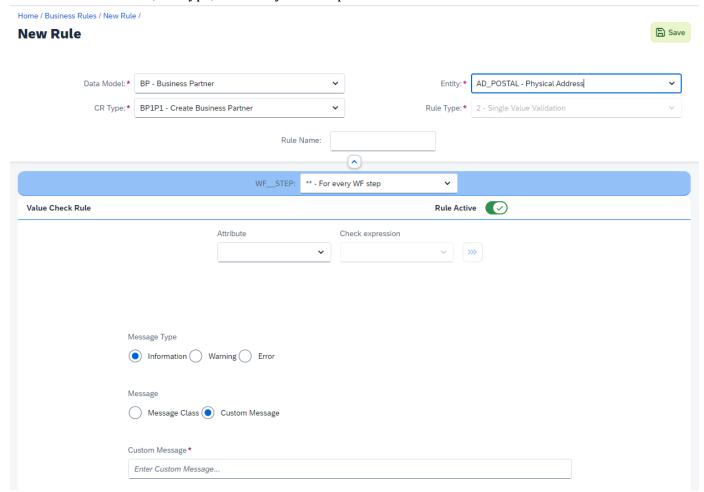
5. BRF+ application will be updated with the rule(s) created.



Value Check Rule

RDG provides the flexibility to apply the business rules with the appropriate messages if conditions do not meet the business rule.

1. Choose the Data Model, CR Type, and Entity at the top of the screen.



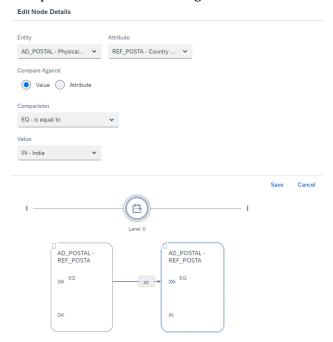
2. Select the attribute for the value check and the expression



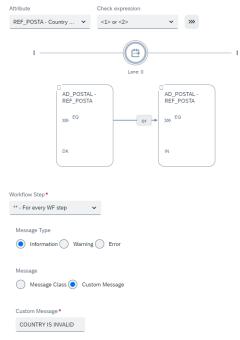
3. Select generate flow



4. Complete the conditions using values or attributes:



- 5. Select the workflow step determining when the rule will be enforced.
- 6. Select the message type details. A preconfigured message class and text or custom message can be used.



If AD_POSTAL-REF_POSTA = "DK" or AD_POSTAL = "IN," then display error message "COUNTRY IS INVALID" for All workflow steps

- 7. Save and select the TR.
- 8. The rule is created in the BRF application, and a successful message should appear.

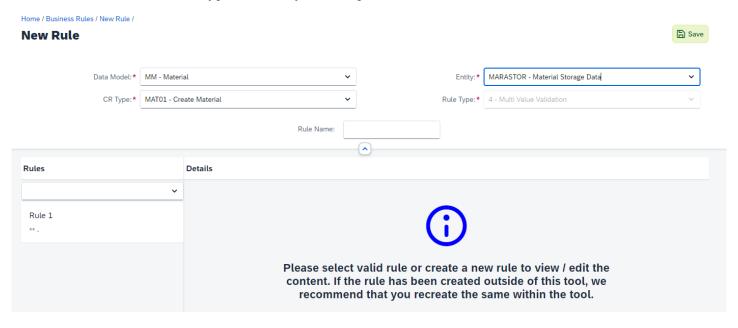


Multi-value Check Rule

Multi validation Rule allows us to create the multiple business rules by adding validating attributes with the appropriate messages if conditions do not meet the business rule.

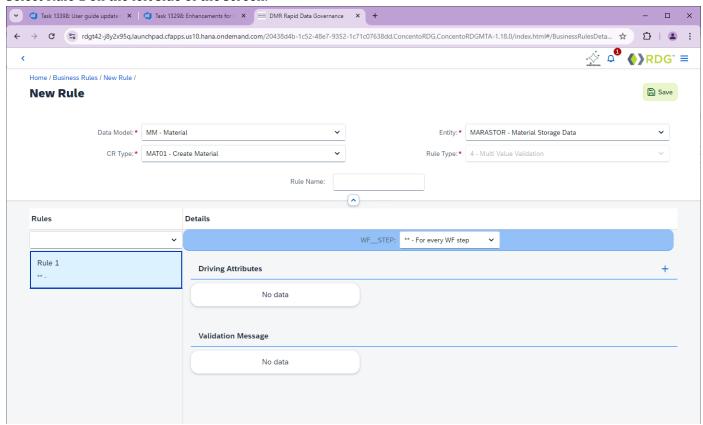
Additionally, it allows us to delete a single Rule from the list of rules or delete rules in their entirety.

1. Choose the Data Model, CR Type, and Entity at the top of the screen.

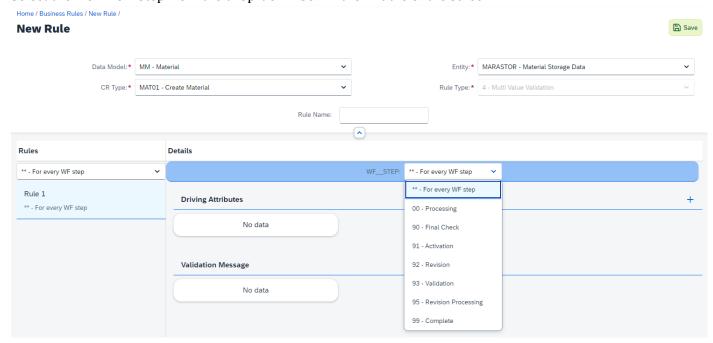




2. Select Rule 1 on the left side of the screen.

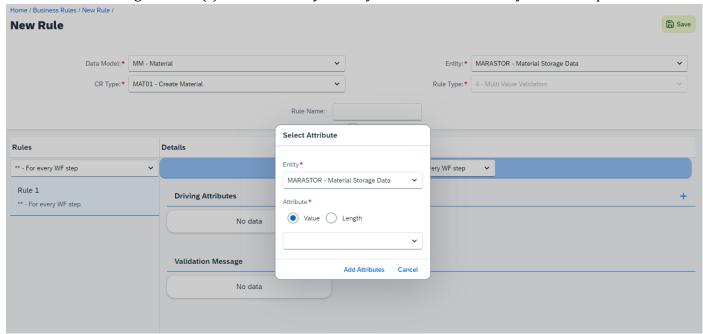


3. Select the workflow step from the drop-down box in the middle of the screen.

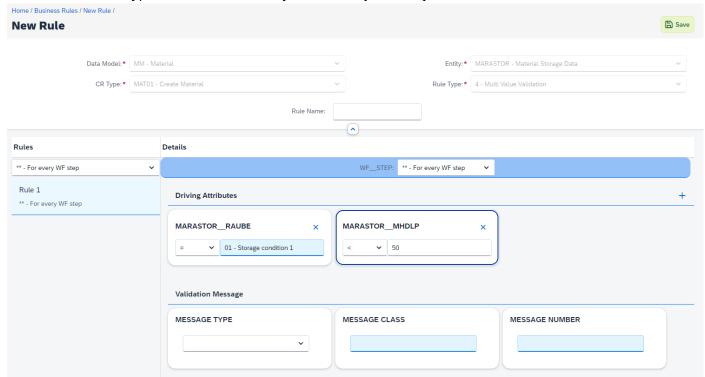




4. Click + to add driving attribute(s). Select an entity and any attributes for the entity that are required.

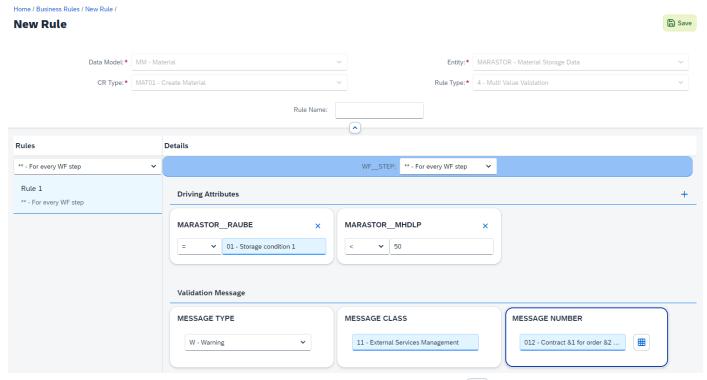


5. Add additional entity/attributes as necessary. Select comparison operators and values for each attribute.

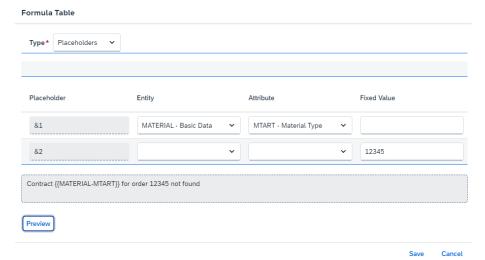




6. After attribute details are added, select a Message Type, Message Class, and Message Number.



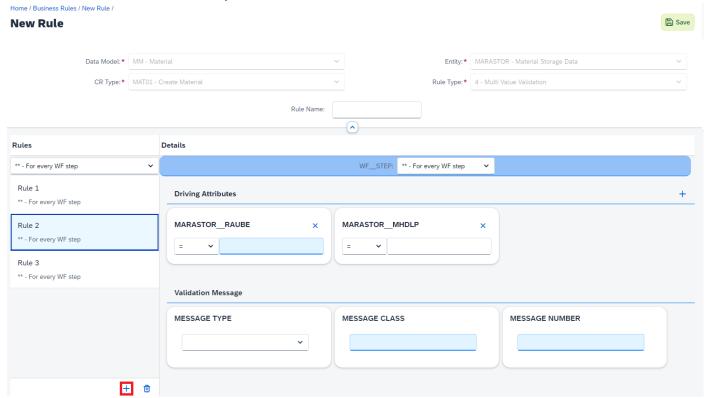
7. If the message text has placeholders, they may be entered by clicking the button next to the Message Number. *Either* an attribute value or a fixed value are valid.



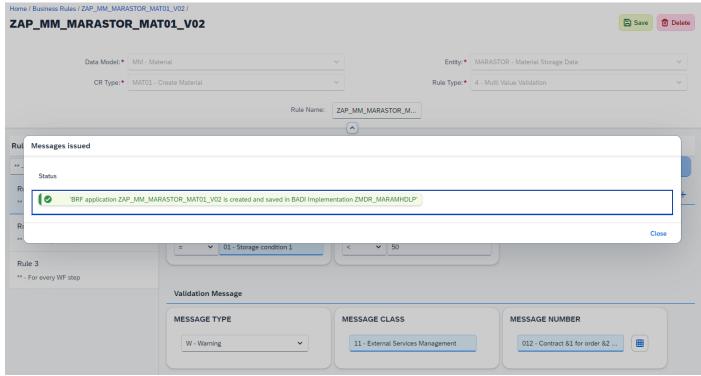
8. Use the + button on the left side of the screen to add additional rules. Attribute values and message information must be entered for each rule added. If an additional attribute is added to one of the rules, the



same attribute will be automatically included in the other rules.



9. Save the Rule Configuration, select TR and Package. Success message should appear.

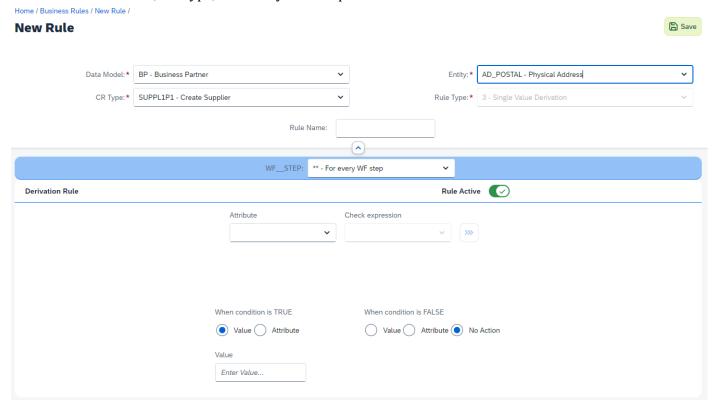




Derivation Rule

RDG Derivation Rule enables the derivation of a single value based on the business conditions for the driving attribute values between the entities.

1. Choose the Data Model, CR Type, and Entity at the top of the screen.



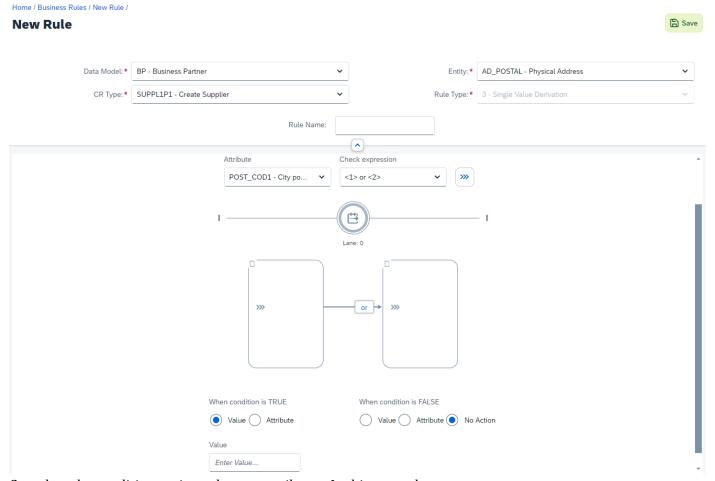


2. Select the workflow step from the drop-down box in the middle of the screen.

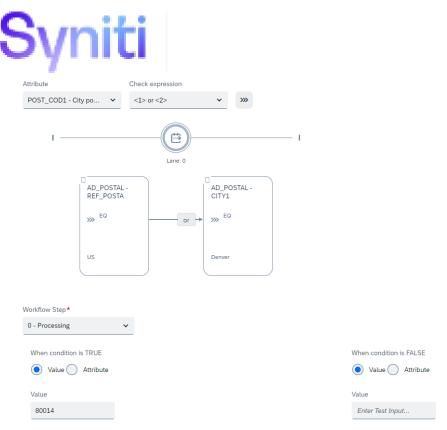
Home / Business Rules / New Rule / Save **New Rule** Data Model: * BP - Business Partner Entity: * AD_POSTAL - Physical Address CR Type: * SUPPL1P1 - Create Supplier Rule Type: * 3 - Single Value Derivation (^) WF__STEP: ** - For every WF step ** - For every WF step \checkmark **Derivation Rule** Active 00 - Processing Attribute 90 - Final Check >>> 91 - Activation 92 - Revision 95 - Revision Processing When condition is TRUE 96 - Processing After Activation Error No Action 99 - Complete Value Enter Value...



3. Select the attribute for the derivation and the expression. User-defined expression allows the creation of any number of conditions with any combination of and/or conditions. Select generate flow.



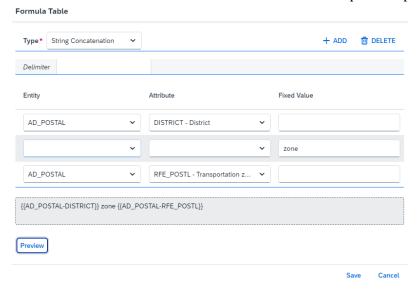
- 4. Complete the conditions using values or attributes. In this example,
 - If AD_POSTAL-REF-POSTA = "US"
 - And AD_POSTAL-CITY1 = "Denver"
 - Then derive the attribute value AD_POSTAL-POST-COD1 = "80014" only for Initial processing step



5. To derive the value of another attribute or combination of attributes, select Attribute.



Click the formula table button. Choose either String Concatenation or Mathematical Formula and enter any combination of attribute values and fixed values as required. Optionally include a delimiter.



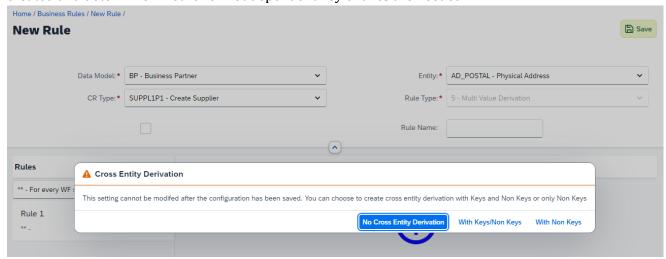
6. Save the Rule Configuration, select TR and Package. Success message should appear.



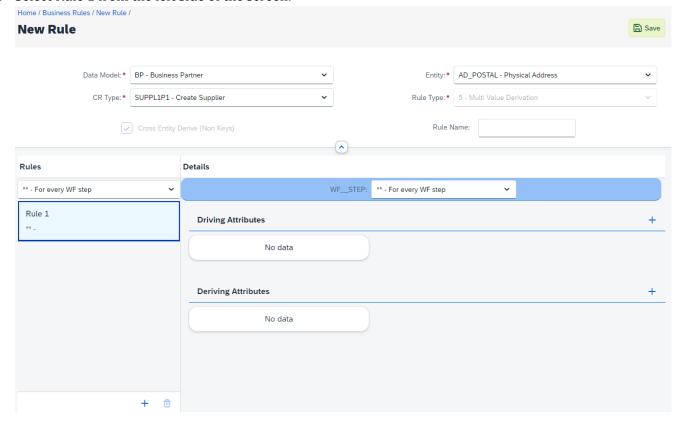
Multi-value Derivation Rule

Allows the addition of multiple derivation rules based on the conditions of the driving attribute values.

1. Choose the Data Model, CR Type, and Entity at the top of the screen. After selecting the entity, a message box for cross-entity option will appear. Choose whether cross entity derivation applies to the rule that will be created and determine whether or not dependent key entries are needed.

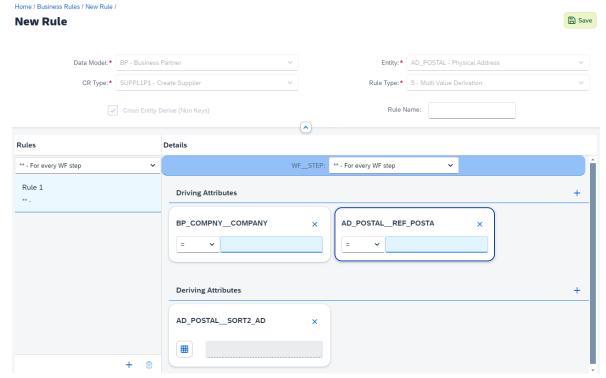


2. Select Rule 1 from the left side of the screen.

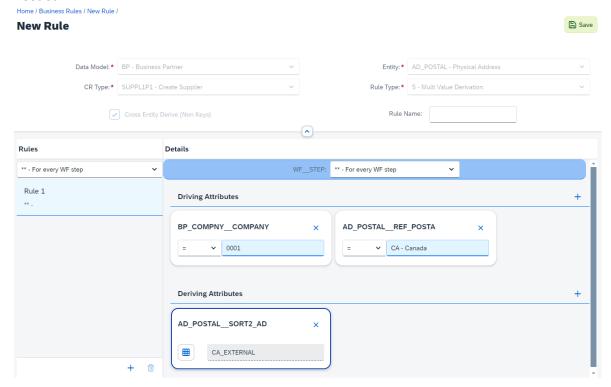




3. Add the Driving and Deriving Attribute by clicking the + button on the right side of the screen.

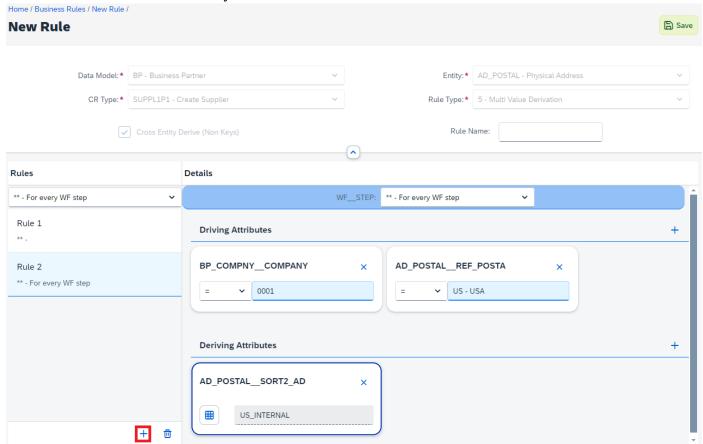


4. Enter values for driving and deriving attributes. Change the comparison operators for the driving attributes if needed.





5. Use the + button on the left side of the screen to add additional rules. Attribute values and message information must be entered for each rule added. If an additional attribute is added to one of the rules, the same attribute will be automatically included in the other rules.



6. Save Configuration, select TR and Package. Successful message should appear.

Single value rules that use short/medium/long texts for driving or deriving attributes are not valid and should not be created. To create rules using these fields, choose multivalue rules instead.



String Concatenation

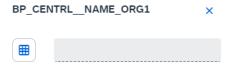
Rules may specify derivations of concatenated String values of attributes or fixed values. String concatenation functionality may be used for single value and multivalue derivation rules.

- Choose Derivation Rule, select the attribute, check expression, and conditions (see <u>Derivation Rule</u>).
 OR
 Choose Multivalue Derivation Rule (see <u>Multivalue Derivation Rule</u>) and add a deriving attribute that has a character String data type.
- 2. For Derivation Rule: When condition is TRUE (or FALSE), select the Attribute radio button. Then click the Formula Table button.

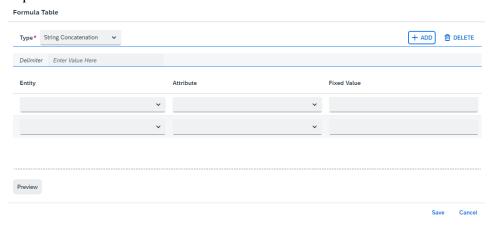


OR

For Multivalue Derivation Rule, click the Formula Table button deriving attribute.



3. In the Formula Table, the type is selected as String Concatenation. Click + ADD to add as many rows as required.



4. Enter any number of characters as a delimiter that will be used between the value generated from each row (optional). Spaces or a combination of other characters and spaces are valid.



- 5. Enter Entity/Attribute and/or Fixed Values in each row. Click Preview to see a preview of the result.
- 6. Save the Formula Table and finish creating and saving your rule.



Derivation Rule with String Concatenation

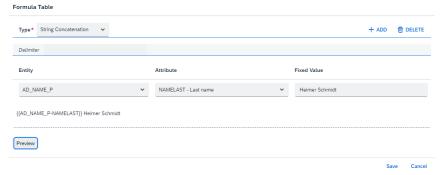
1. Create a rule to derive NAMELAST – Last name.

This rule has two conditions:

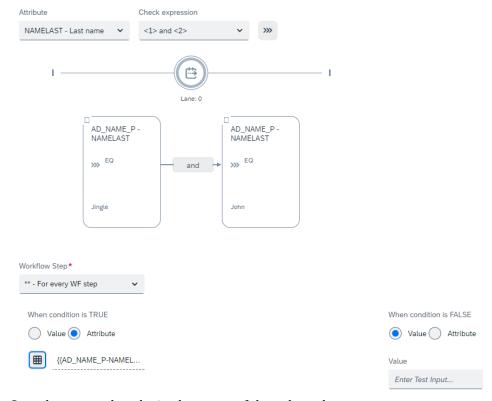
AD_NAME_P - NAMEFIRST = "John"

 $AD_NAME_P - NAMELAST = "Jingle"$

- 2. Under When condition is TRUE, choose the Attribute radio button and click the Formula Table button.
- 3. Add two rows to the formula table. Enter Entity/Attribute and Fixed Values. Click Preview to see the result.



- 4. According to the rule, "John Jingle" derives to "John Jingleheimer Schmidt"
- 5. Save the Formula Table.



6. Complete any other desired aspects of the rule and save.



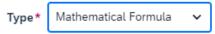
Arithmetic Derivation

Arithmetic derivation may be used with Single Value Derivation or Multivalue Derivation rules.

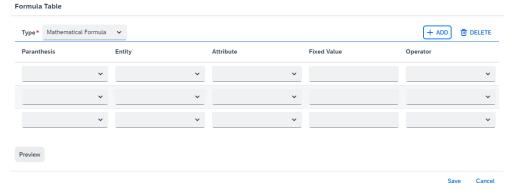
- 1. Choose Derivation Rule, select the attribute, check expression, and conditions (see <u>Derivation Rule</u>).
- 2. When condition is TRUE (or FALSE), select the Attribute radio button. Then click the Formula Table button.



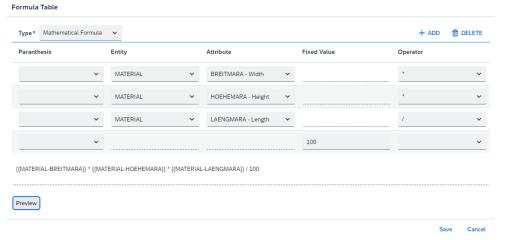
3. In the Formula Table, the Type is selected as String Concatenation as default. Change this selection to Mathematical Formula.



4. Click + ADD to add as many rows as required.



5. Enter either an Entity/Attribute OR a Fixed Value in each row. Choose the operator for each row, including parentheses where necessary. Click Preview to see the formula. Save the Formula Table.



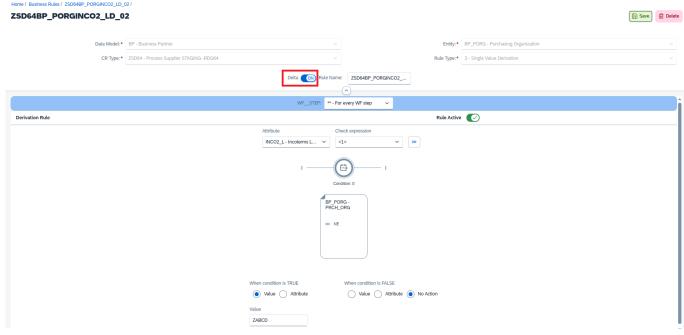
6. Save your rule to complete.



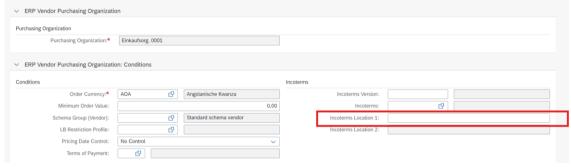
Delta Check

Rules may be applied to staging data only by choosing the Delta option. This option can be used for change/update change request types, such as the Process Supplier example below.

1. Turn on the Delta option at the top of any single or multivalue business rule of a relevant change request type.



2. For this rule, which was created for business activity Process Supplier, the value of Incoterms Location 1 is not derived for the Purchase Organization that already existed.



3. If a new purchase organization is added, the rule is applied and Incoterms Location 1 is derived.

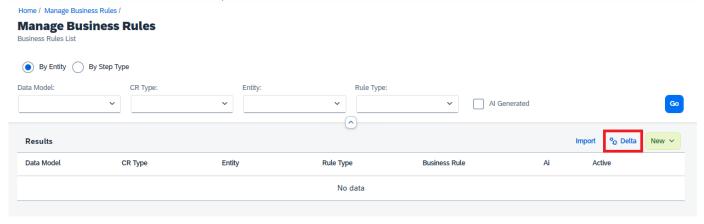




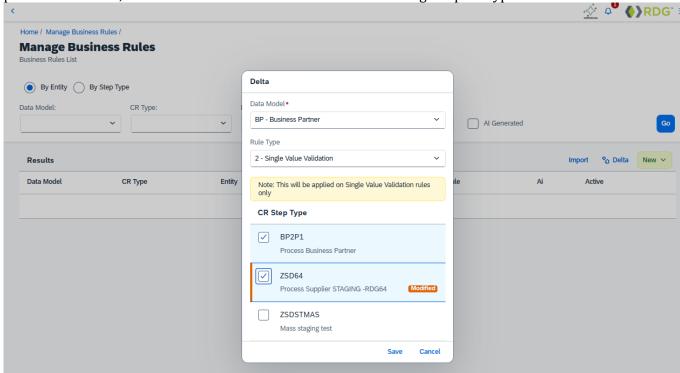
Apply Delta Option to a Group of Rules

The Delta button on the main business rules screen provides the method to turn on the Delta option for all rules in a change request type, or all of one type of rule.

1. On the main business rules screen, click the Delta button.



- 2. Select the data model.
- 3. Filter by type of rule or leave *-All rule types selected.
- 4. Choose the change request type. Any changes will be marked with "Modified" next to the change request type. Click Save. The job will be submitted as a background job and may take a few minutes to complete. Until the process is finished, modification of the business rules for that change request type will be restricted.

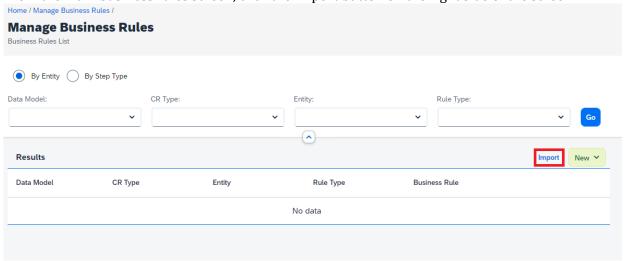




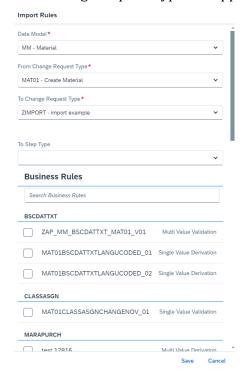
Importing Business Rules

Rules created for one change request type can be imported into another change request type. This functionality applies to all types of business rules. If the change request type the rules are imported from has the same workflow steps as the change request type the rules are being imported to, the imported rules will apply to the same workflow steps as the original rules. If the two change request types do not have the same workflow steps, the imported rules will apply to all workflow steps.

1. From the main business rules screen, click the Import button on the right side of the screen.

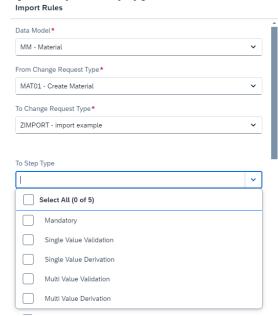


2. Choose the Data Model, From Change Request Type, and To Change Request Type. A list of rules from the From Change Request Type will appear.

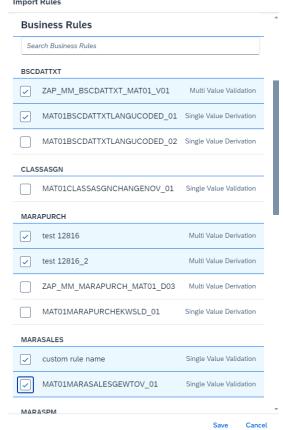




3. Optionally filter by type of rule.



4. Select the rules to be imported into the To Change Request Type. Click Save $\frac{1}{100}$ Import Rules

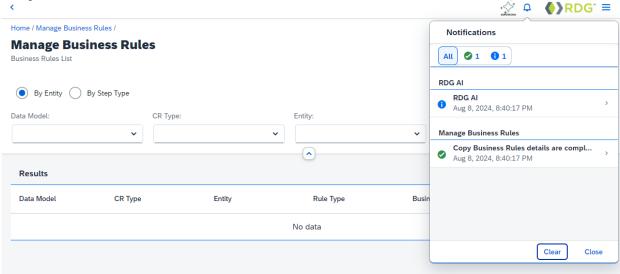




5. Receive a message that the job is submitted.



6. Until the job is completed, rules from the two change request types involved cannot be edited. When the job is completed, a notification will be sent.

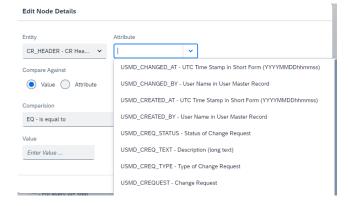


Change Request Header Data in Business Rules

You can use change request header information in conditions or driving values when creating rules.

Value Check or Derivation Rule

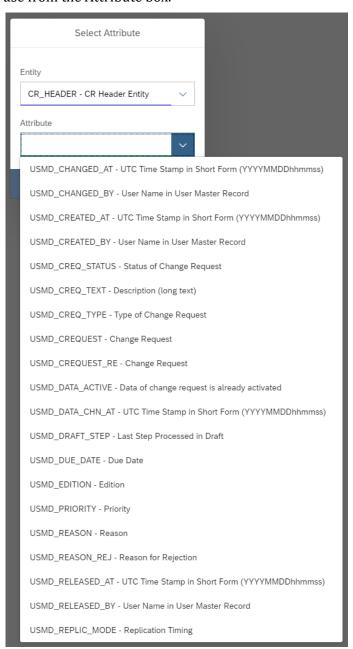
Create the rule according to <u>Value Check Rule</u> or <u>Derivation Rule</u> instructions. When creating the condition, choose CR_HEADER from the Entity box and select which type of information to use from the Attribute box.





Multivalue Validation or Multivalue Derivation Rule

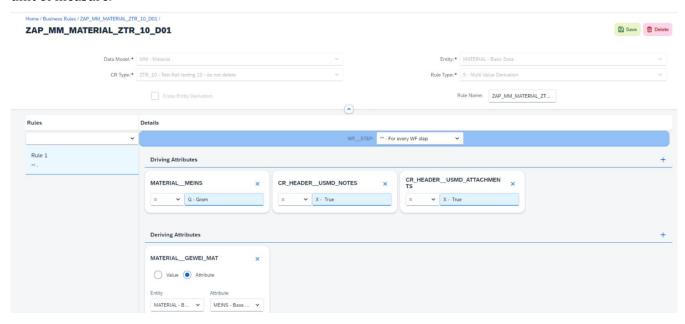
Create the rule according to <u>Multivalue Validation Rule</u> or <u>Mutlivalue Derivation Rule</u> instructions. When adding the validating or driving attribute, choose CR_HEADER from the Entity box and select which type of information to use from the Attribute box.



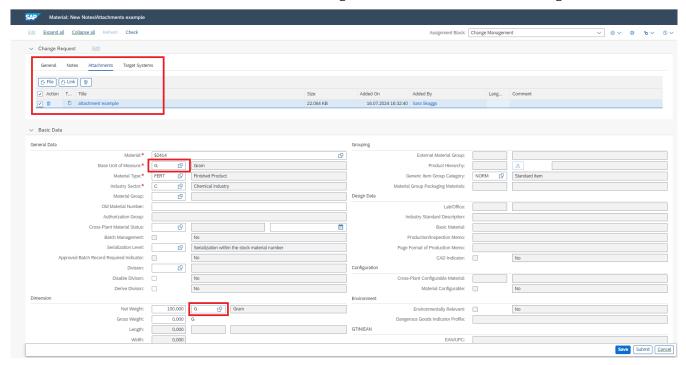


Rules Using Notes/Attachments

The presence (or absence) of Notes/Attachments can be used as conditions in single or multivalue validation and derivation rules. For example, in this rule, if the base unit of measure is G – Gram, and both note(s) and attachment(s) are present in the change request header, the value of weight unit will be derived to be the same as unit of measure.



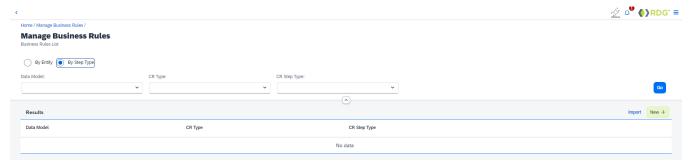
In the change request below, both a note and an attachment have been added to the change request header. The base unit of measure is G – Gram. Therefore, the weight unit has been derived according to the rule.



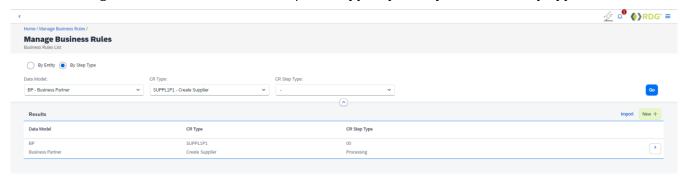


Business Rules by Change Request Step Type (Configure Properties of Change Request Step)

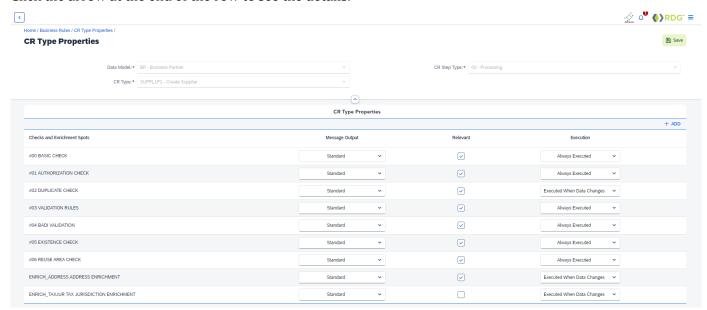
On the main business rules screen, select By Step Type.



To view existing rules, select a Data Model and/or CR Type. Optionally select a CR Step Type. Click Go.



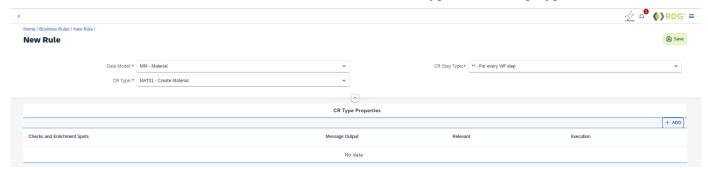
Click the arrow at the end of the row to see the details.



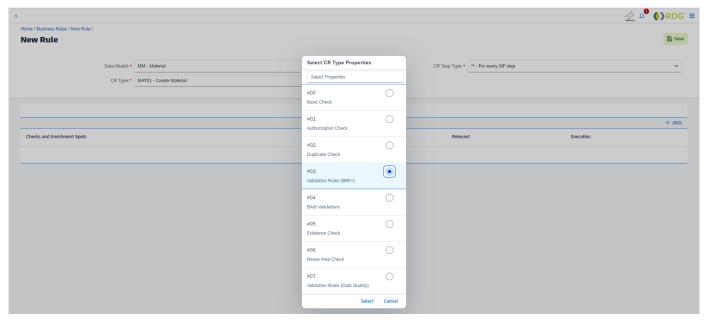
Modify the options as required and click Save.



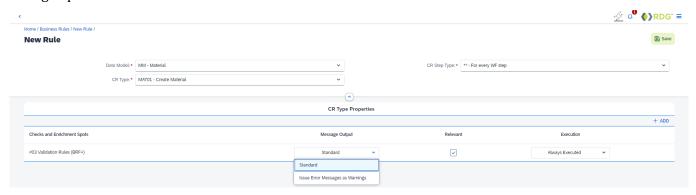
To create a new rule, click the New+ button. Enter Data Model, CR Type, and CR Step Type.



Click +ADD to add a rule for this change request type for the step type selected. Choose the type required.



Change options as needed.



Save.



Field Property Configuration

RDG eases the process of creating a change in any of the fields in the UI by automating the configuration steps.



There are two ways field properties can be configured, by entity or by change request step type.



If there are conflicts between a property rule created by entity and property rule created by change request step type, the property rule by entity will have priority.

Field Properties by Entity

Field properties created by entity change the property of a field based on values of attributes set in the rule. There are four properties that can be applied to the field

C - Optional

R - Read Access Only

M - Required Field

H - Hidden Field

and the property can be applied to a single workflow step or all workflow steps.

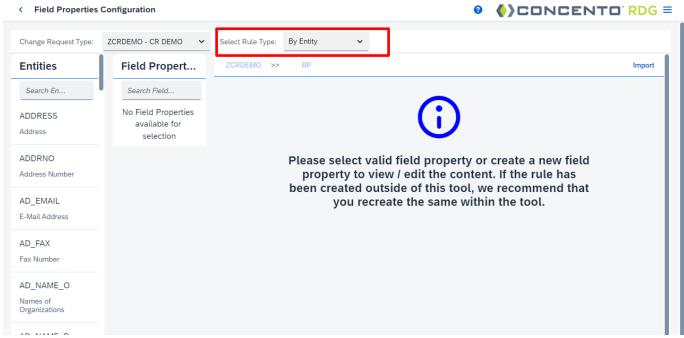


M – Required is not supported for fields in list UIBBs.

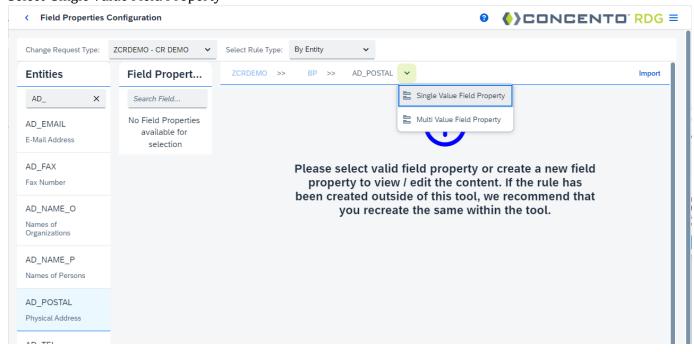


Single Value UI Property

- 1. From the home screen, select 'Field Property Configuration'
- 2. Select the specific Change Request Type for which the enhancement will be applied.
- 3. Notice that the rule type is Entity.

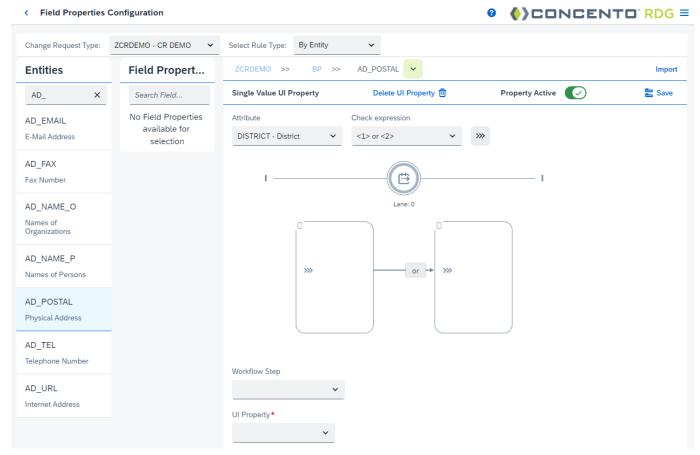


- 4. Select or search for the Entity which contains the field desired.
- 5. Select 'Single Value Field Property'



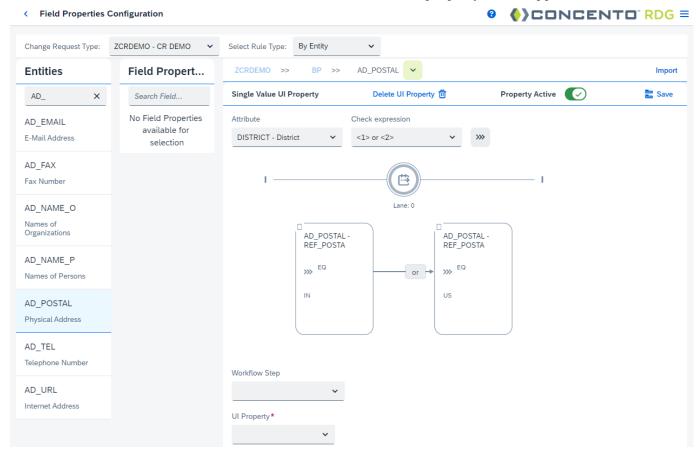


6. Enter the Attribute for the desired field and select the check expression. Click the wbutton.



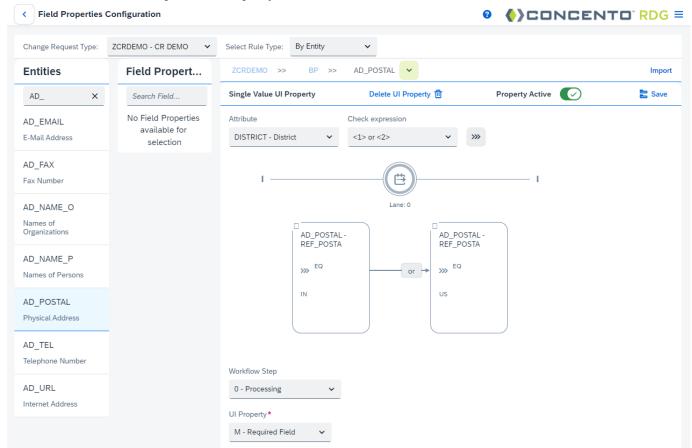


7. In each node, add the desired conditions for which, when true, the property will be applied.





8. Choose the Workflow Step and UI Property.

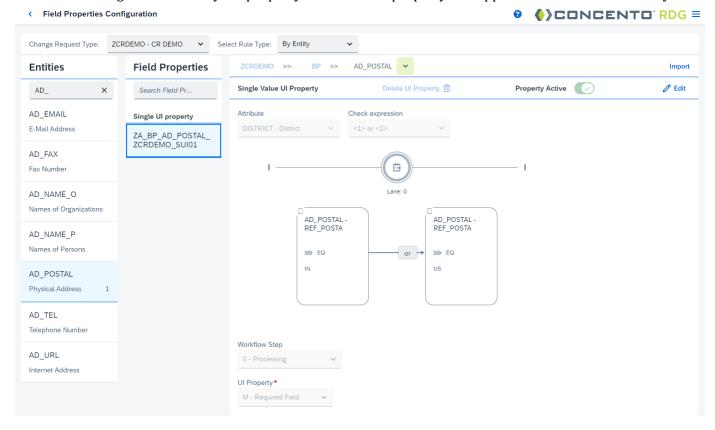


In this example, the field for the District attribute will be mandatory when the country entered is either IN or US during the processing step of the workflow.

9. Click Save. Choose a transport and package.



10. A success message will confirm your property is saved. The property will appear in the list for this entity.

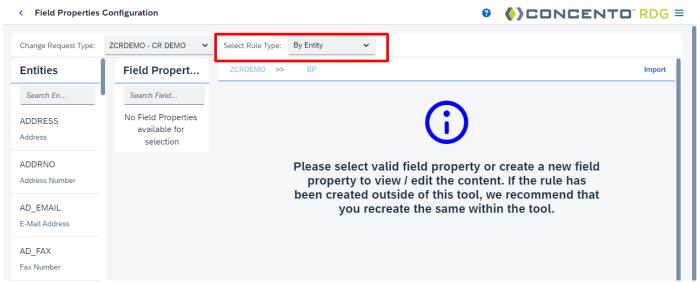




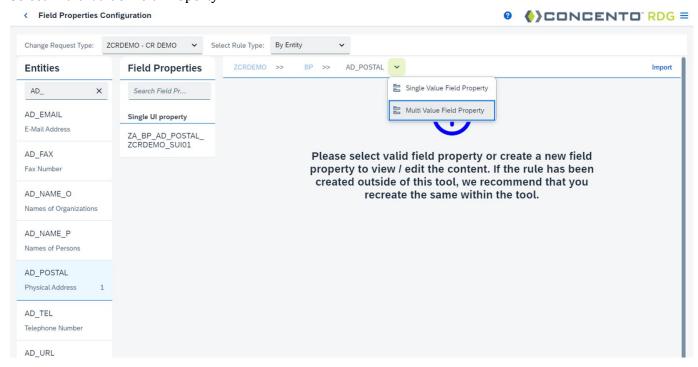
Multi Value UI Property

Used to set properties for multiple fields at once.

- 1. From the home screen, select 'Field Property Configuration'
- 2. Select the specific Change Request Type for which the enhancement will be applied.
- 3. Notice that the rule type is Entity.

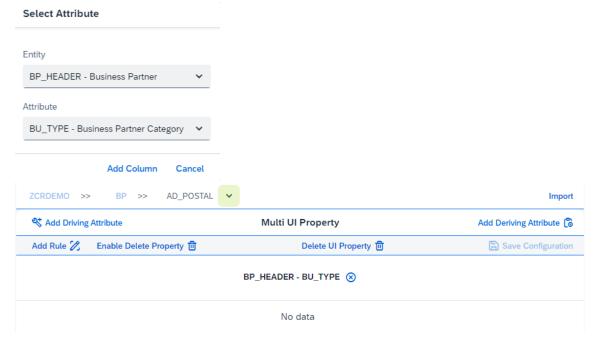


- 4. Select or search for the Entity which contains the field desired.
- 5. Select 'Multi Value Field Property'

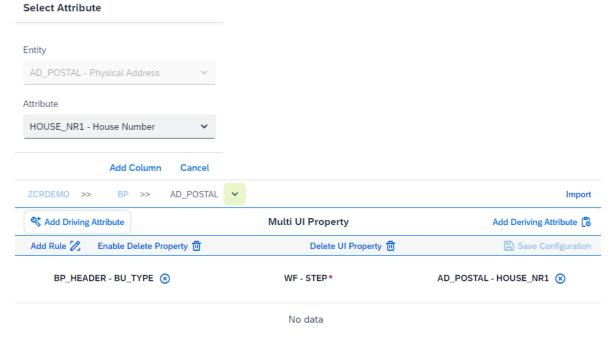




6. Add Driving Attribute(s) – the attributes which, when they have the values in the rule, will result in a property being applied to the deriving attribute(s).



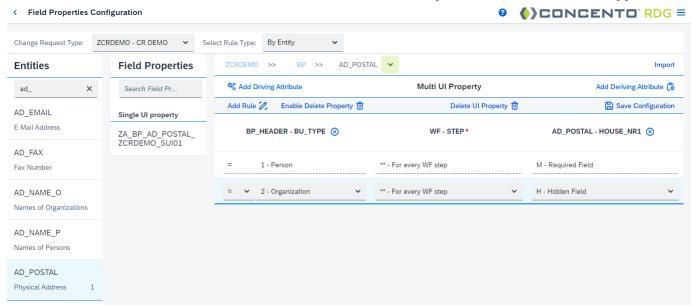
7. Add Deriving Attribute(s) – The attribute(s) whose field property will change based on the Driving Attribute.



8. Click 'Add rule' to add as many rule rows as desired.

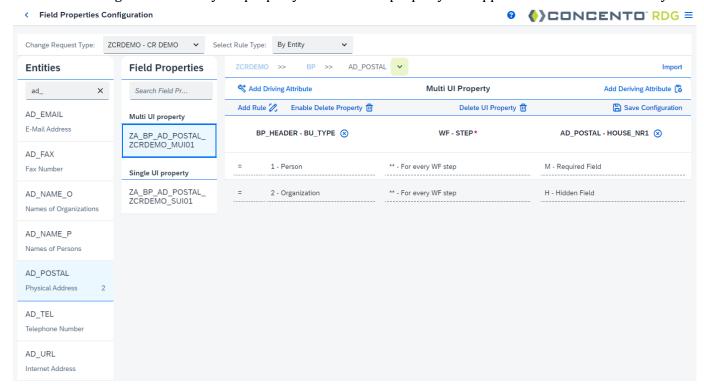


9. Enter values in each row as a different rule. Choose the workflow step that each rule row will be applied to.



In this example, when the business partner category is Person, the field for house number will be required. When the business partner category is Organization, the field for house number will be hidden. These rules will apply to every workflow step.

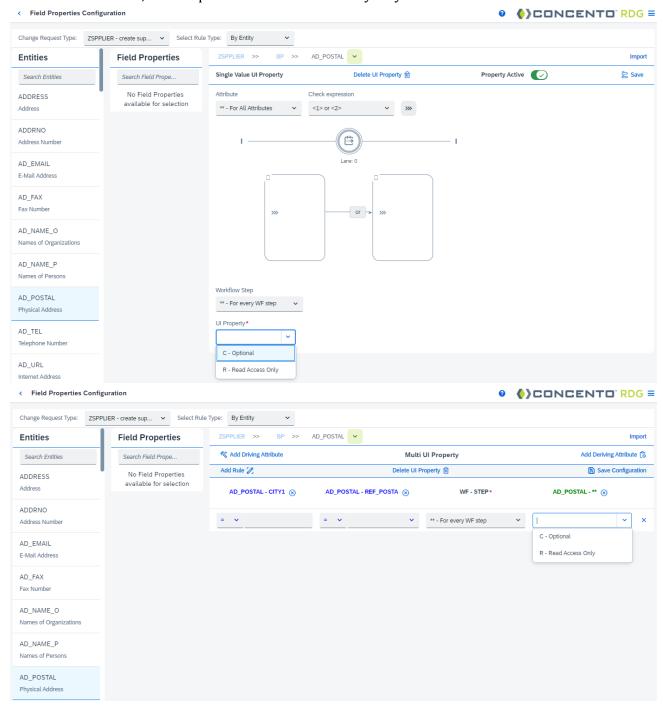
- 10. Click Save Configuration. Choose a transport and package.
- 11. A success message will confirm your property is saved. The property will appear in the list for this entity.





Field Properties for All Attributes of an Entity

Field properties may be applied to all attributes of an entity using either single or multi value rules. If **-For All Attributes is selected, either Optional or Read Access Only may be chosen.





Field Properties by Change Request Step Type

Field properties created by change request step type will apply to that step type regardless of values entered in other fields. There are five properties that can be applied to the field

S - Standard

NRC – No Required Field Check

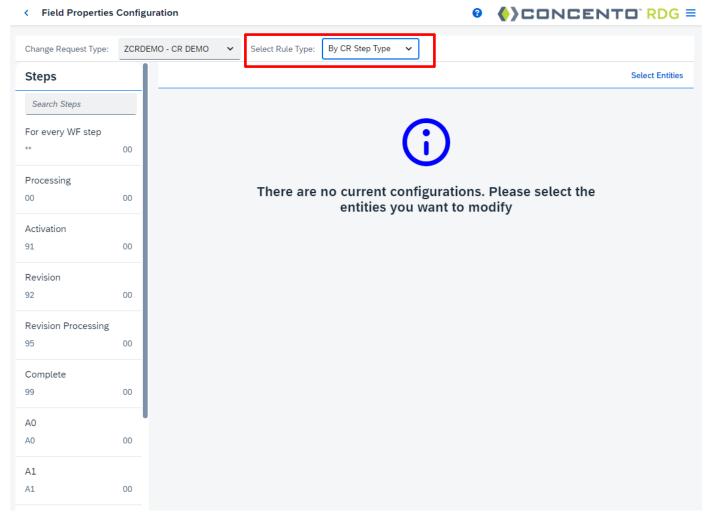
R - Not Relevant (Read Only)

H – Hide

M – Mandatory

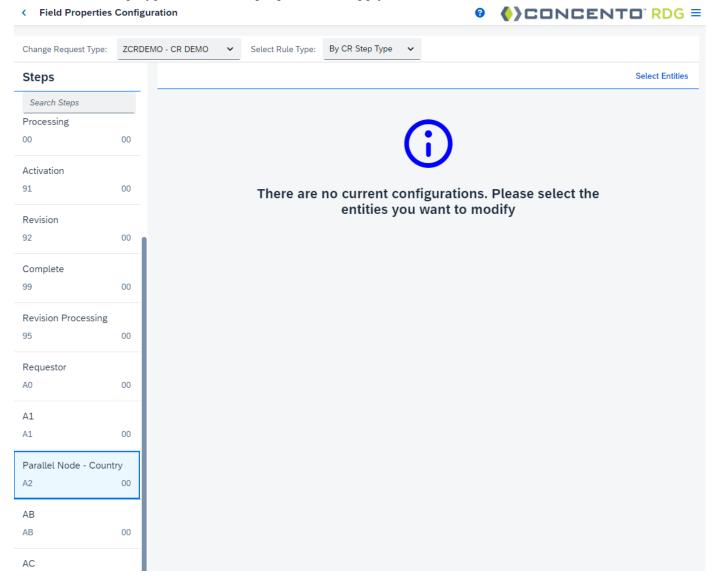
and the property can be applied to a single workflow step or all workflow steps.

- 1. From the home screen, select 'Field Property Configuration'
- 2. Select the specific Change Request Type for which the enhancement will be applied.
- 3. Select Rule Type: By CR Step Type



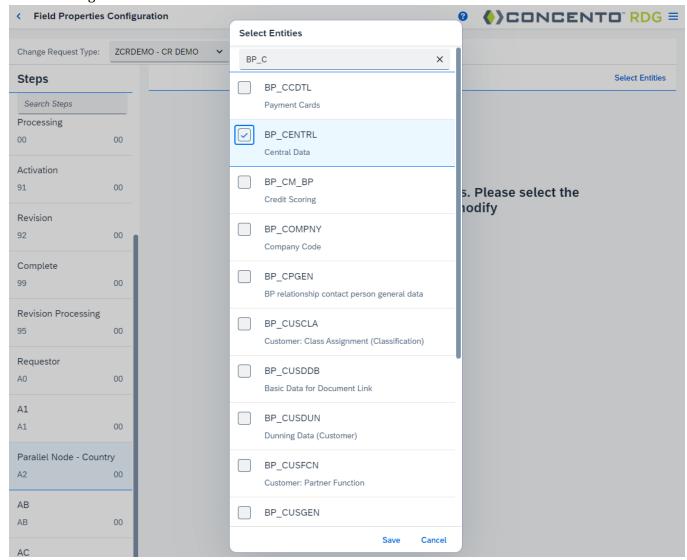


4. Choose the CR Step Type that the field properties will apply to from the list on the left.



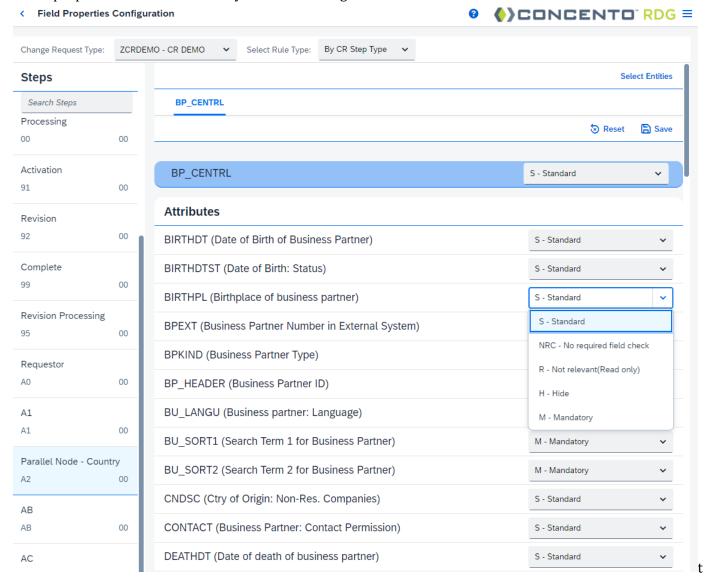


5. Click the Select Entities button and choose the entity or entities that contain the attributes of the fields you wish to change. Click Save.



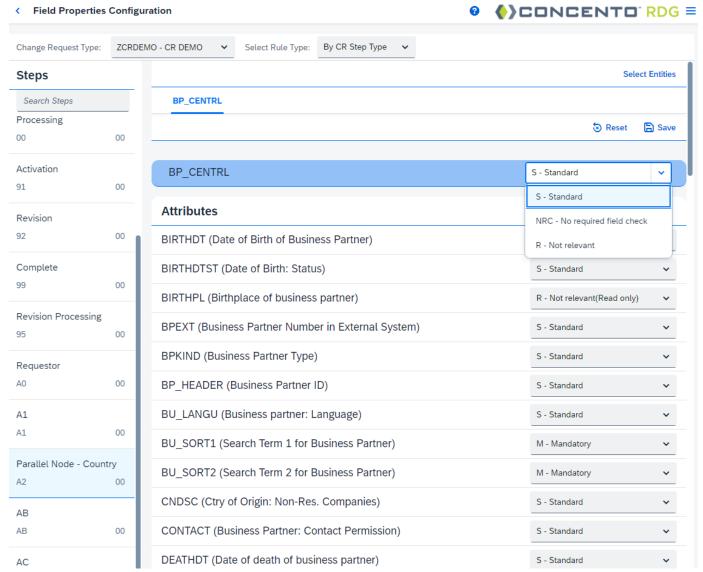


6. Select properties for each attribute you wish to change.





7. Changing the selection to something other than Standard at the entity level will apply to all of the attributes in the entity and override any attribute-level selections below it. For example, choosing R-Not Relevant here for BP_CENTRL will make all fields for all attributes in BP_CENTRL read-only, regardless of any changes made to the individual attributes below it.



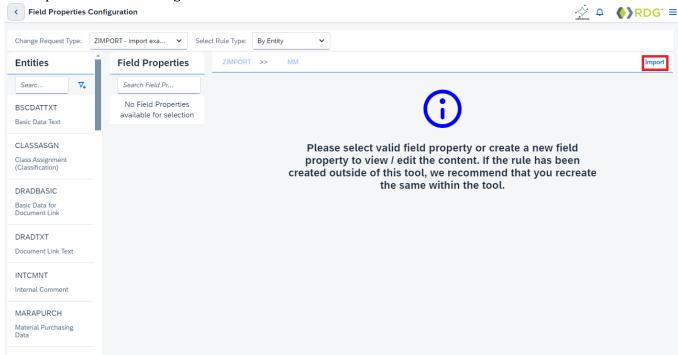
8. When changes are completed, click Save. Choose a transport and package if required. A success message will be given to confirm your changes have been properly saved.



Importing Field Properties

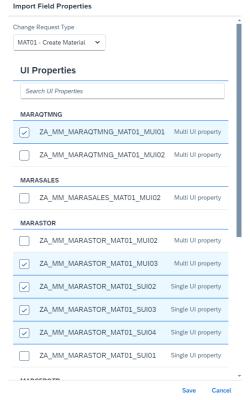
Properties created by entity for one change request type can be imported into another change request type. This functionality applies to both single and multivalue field properties. If the change request type the properties are imported from has the same workflow steps as the change request type the properties are being imported to, the imported properties will apply to the same workflow steps as the original rules. If the two change request types do not have the same workflow steps, the imported rules will apply to all workflow steps.

1. On the Field Properties screen, select the change request type that the properties will be imported into. Click the Import button on the right side of the screen.





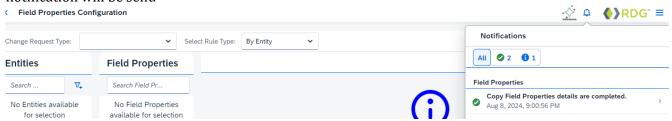
2. Select the change request type to import properties from. Choose the properties to be imported. Click Save.



3. Receive message that the job has been submitted.



4. Until the job completes, properties from the two change request types cannot be edited. When completed, a notification will be sent.





Interface Configuration

RDG eases the process of creating and mapping interfaces by automating configuration steps and simplifying the process onto one easy to navigate screen. New business systems can be added, and mapping completed while easily visible to the users. RFC connections must first be established in SAP to complete the interface process. Replication via IDoc or via services (WSDL and SOA) are available and are dependent on the outbound implementation selected.



Create New Replication Model

- 1. In the home screen, select 'Interface Configuration'
- 2. Create new Interface by selecting $\,\,^+$
- 3. Enter required data:
 - Replication Model ZCUST001 (select or create new)
 - Description CUSTOMER REPLICATION
 - Outbound Implementation 159 2 CMD (select from existing connections)
 - Communication Channel Defaults from Outbound Implementation setup
 - Data Model
 - Business System ER9CLNT003 (select from available systems or add new see below)



Two configurations must be completed in MDG for data replication using IDocs.

- Partner profile
- Message type



Interface Details

Replication Model:*	ZCUST001
Description:*	Customer Replication
Outbound Implementation:*	159_2 - CMD: Send cu
Communication Channel:*	2 - Replication via IDoc
Data Model:*	BP - Business Partner × X
Sequence:	00
Filter Time:	x
Business System:*	ER9CLNT003 x

Manage Business System

Additional data is optional:

- Sequence Defaults to 00
- Filter Time

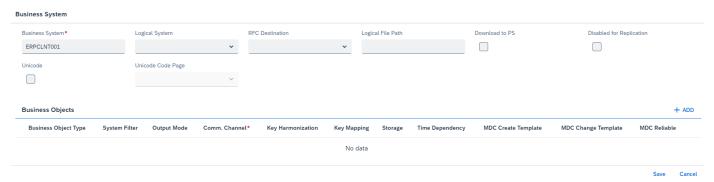
If the Business System is not set up it can be added.

New Business System

1. Select Manage Business System to add a New Business System

2. Enter Business System – follow standard naming convention

3. Additional data is optional.



4. Select transport and save new interface.





Outbound implementation and business system must be a unique combination. If additional interfaces are created with the same outbound implementation and business system, they will be inactive.

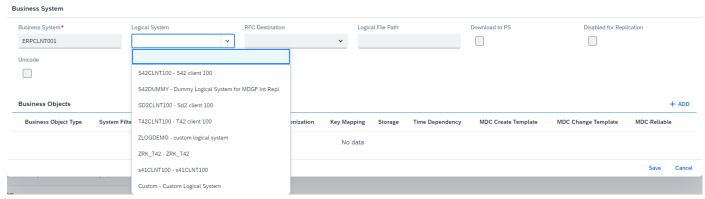
For replication of Financial Accounting Reporting Structure and Financial Consolidation Reporting Structure, different interfaces must be used. The interfaces may not be active at the same time for the replication to work properly.

New Logical System

1. Select Manage Business System to create a new logical system

Manage Business System

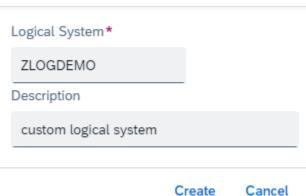
2. Select a business system and choose Custom – Custom Logical System from the Logical System drop-down box.





3. Enter the name and description. Click Create.

Create Logical System

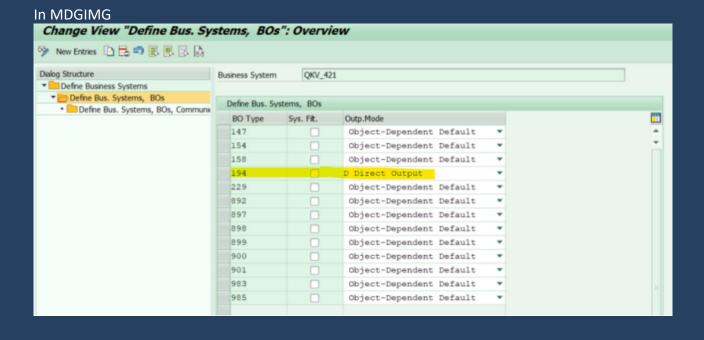


4. The new logical system is created and assigned to the business system. A logical system is unique to each business system.



For 194 – Product (material replication), it is important that the Output Mode be Direct Output in order for the data to be replicated. This selection can be set in both RDG and MDG.

In the Manage Business System option in each interface in RDG SD2CLNT100 - Sd2 client 100 SD2CLNT100 Unicode Code Page - Object-Dependent Default 💙 1 - Replication via Services 💙 - Not Defined - Not Defined - Object-Dependent Default 2 - Replication via IDoc v - Not Defined - Not Defined - Not Defined Not Defined · 🗆 159 - Custo... V - Object-Dependent Default V 1 - Replication via Services V - Not Defined **~** - Not Defined - Not Defined 2 - Replication via IDoc 💟 - Not Defined 229 - Profit ... 🗸 · 🗆 · 🗆 - Not Defined · 🗆 266 - Supplier V Object-Dependent Default V 1 - Replication via Services V - Not Defined Not Defined - Not Defined DRF_0011 - ... - Object-Dependent Default - 2 - Replication via IDoc - V - Not Defined · 🗆 - Not Defined YA_BO - Ba... - Object-Dependent Default - 2 - Replication via IDoc - Not Defined ~ | - Not Defined - Not Defined





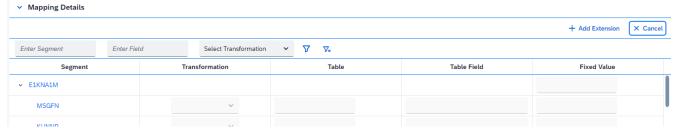
For interfaces that involve replication via IDOC, an extension, custom segments, and fields can be added in the Mapping Details table.

Add Extension

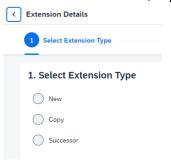
1. If an extension is not added to the standard IDOC type, then it can be added by selecting Edit IDOC.

Edit IDOC

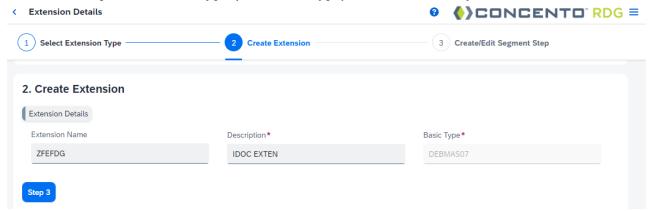
2. Highlight the segment. Click on Edit IDOC and then Add Extension.



3. Create a new extension, copy from an existing one or add a successor.

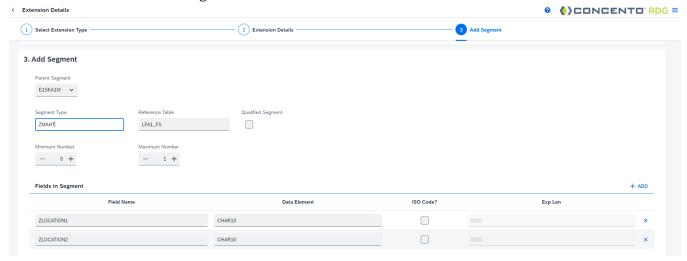


- 4. Add the extension name starting with "Z." In case of copy and successor, choose the referencing segment from the list.
- 5. Give the description. The basic type (Basic IDOC Type) is defaulted already.





- 6. Click on step 3.
 - Choose the parent Segment from the list
 - Give the name of the segment starting with "Z"
 - Choose a relevant referencing table
 - Minimum and maximum can be set per requirements
 - Add the fields to the segment

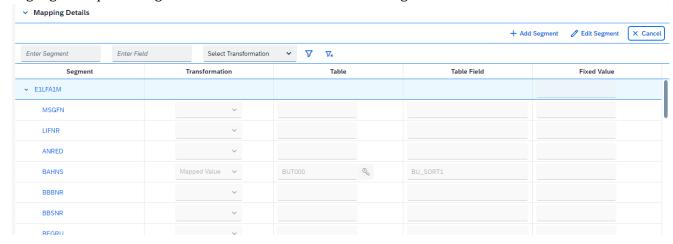


7. Click Save and select the correct TR and package.

Add Segments

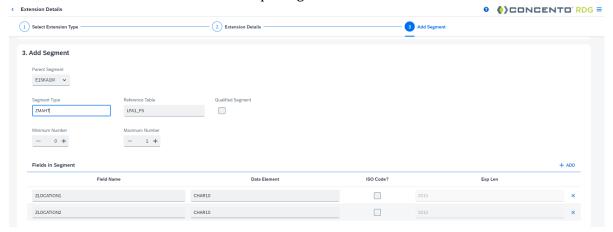
If the IDOC type already has an existing extension, then user will only see options to add/edit segments Custom segments must be added to a parent segment. Multiple custom segments can be added. Only custom segments can be edited.

1. Highlight the parent segment. Click Edit IDOC and then Add Segment.



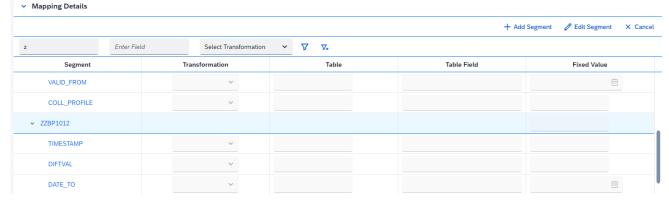


- 2. Fill in required information.
 - Give the name of the segment starting with "Z"
 - Choose a relevant referencing table
 - Minimum and maximum can be set per requirements
 - Add the fields to the segment
 - Click Save and select the correct TR and package.



Edit a Segment

1. Highlight a custom segment in the table. Click Edit Segment.



- 2. Make required changes. Editable fields include
 - Reference Table
 - Minimum Number
 - Maximum Number
 - Qualified Segment indicator
 - Existing Fields in Segment
 - Adding additional fields
 - Removing fields

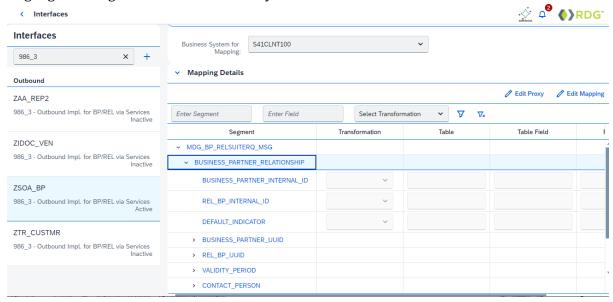


Edit Proxy

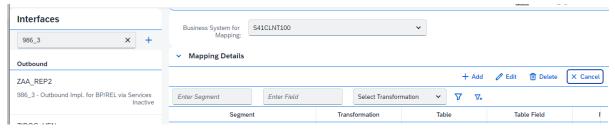
For data replication involving SOA, enhancements with elements and attributes may be added in the Mapping Details table. An enhancement may have attribute(s) directly under it, or may have element(s) that contain attribute(s).

Add Element and Attribute

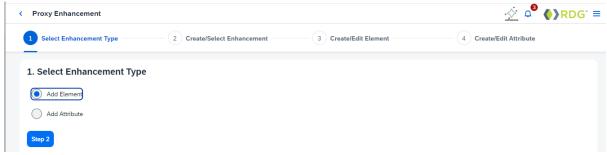
1. Highlight the segment. Click on Edit Proxy / Edit Proxy.



2. Click on Add + Add

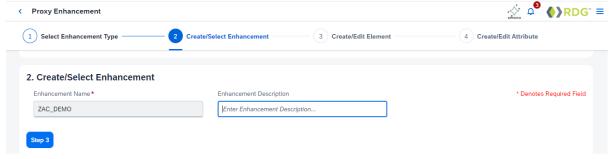


3. Choose Add Element. Or choose Add Attribute to add the attribute directly under the enhancement and skip to step 8 of these instructions.

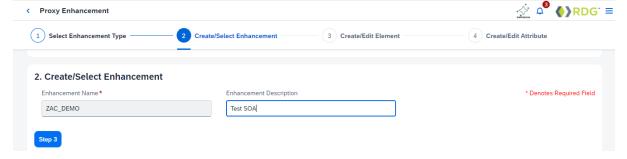




4. Enter Enhancement Name starting with Z or Y.

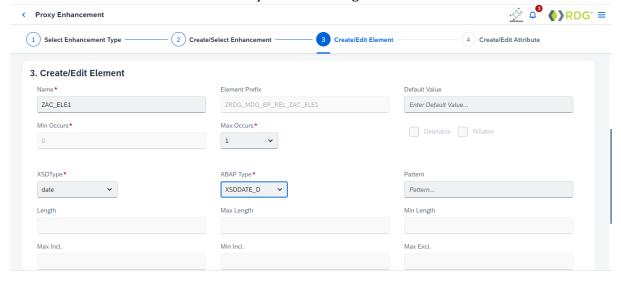


5. Give the description (Optional).



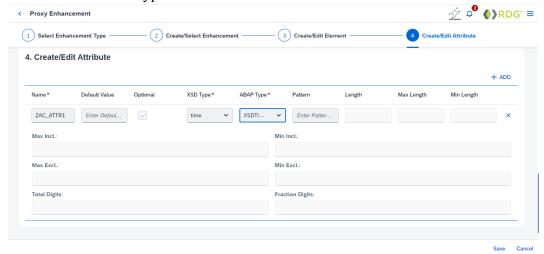
- 6. Click on step 3.
 - Enter the Element Name starting with Z or Y
 - Select the value from the list for Max Occurs field
 - Select the XSD Type from the list
 - Select the ABAP Type from the list

Based on the selections for XSD Type and ABAP Type, other fields may be optional or required. These fields will be made editable or marked required according to the values selected.





- 7. Click on Step 4
- 8. Click on Add + ADD to create a new Attribute
 - Enter the Attribute name starting with Z or Y
 - Enter Default Value (optional)
 - Select the XSD Type
 - Select the ABAP Type

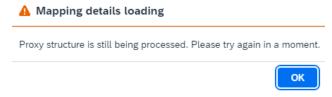


Based on the selections for XSD Type and ABAP Type, other fields may be optional or required. These fields will be made editable or marked required according to the values selected.

- 9. Click Save and select the correct TR and package.
- 10. Receive a confirmation message that the changes have been submitted and that the details will load when completed. This may take one to two minutes.



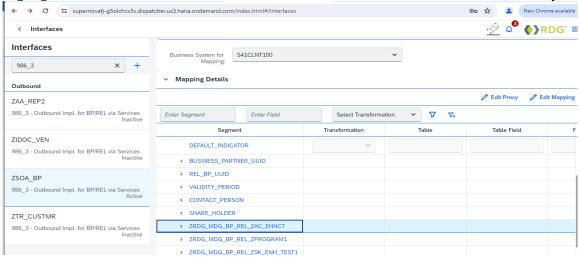
11. If you return to the Mapping Details before loading is complete, receive a message that details are still loading. Return to the Mapping Details when complete.



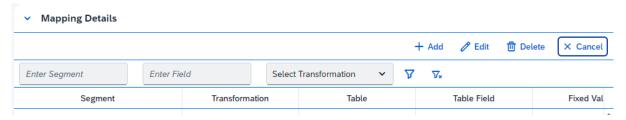


Edit Proxy Enhancement

1. Highlight the custom enhancement, element, or attribute to be edited. Click on Edit Proxy.



2. Click on Edit

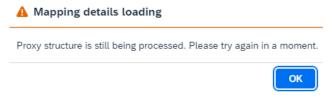


- 3. Make required changes.
 - Editing Enhancement → Add or Edit Attribute(s)
 - Editing Element → Add or Edit Attribute(s)
 - Edit Attribute
- 4. Click Save and select the correct TR and package.
- 5. Receive a confirmation message that the changes have been submitted and that the details will load when completed. This may take one to two minutes.



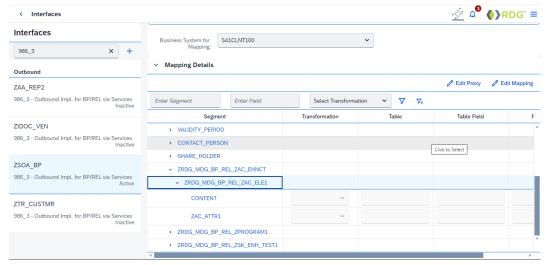


6. If you return to the Mapping Details before loading is complete, receive a message that details are still loading. Return to the Mapping Details when complete.



Delete Enhancement, Element, or Attribute

1. Select the enhancement, element, or attribute to be deleted and click on Edit Proxy / Edit Proxy



- 2. Click on Delete Delete
- 3. Select the correct TR and package.



If the only attribute under an element is deleted, the entire element will be deleted.

If all attributes and elements under and enhancement are deleted, the entire enhancement will be deleted.



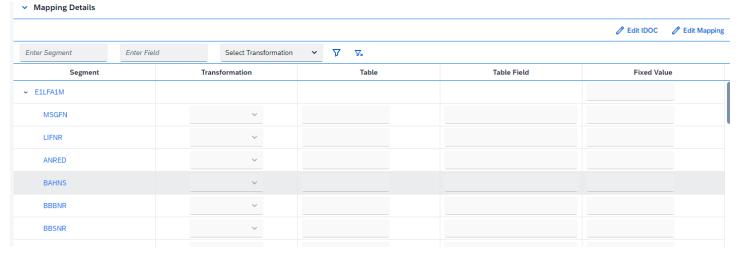
Edit Mapping

For an interface with any type of communication channel, the mappings can be edited in the Mapping Details table with the following steps.

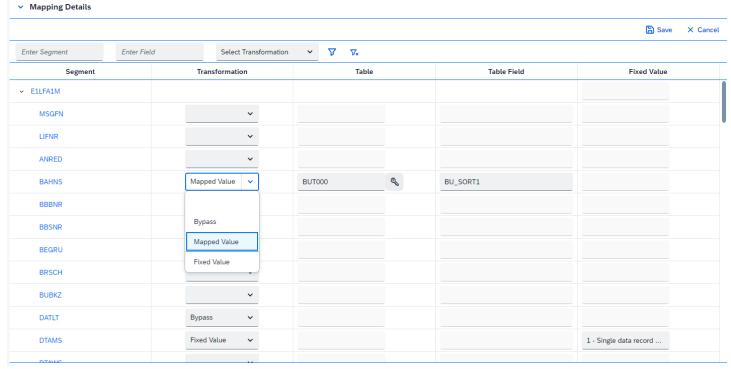
1. Select the system for Mapping:

Business System for Mapping:	~
------------------------------	----------

2. Find a segment/field or enhancement/attribute by scrolling or by using the filter at the top of the table. Or filter by selecting the type of transformation. To change the mapping, click Edit Mapping. Then adjust the mapping by selecting fixed, bypass or mapped value transformation.





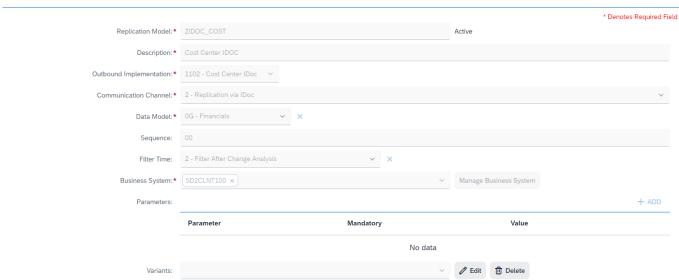


- 3. Complete the mapping according to the transformation:
 - If Fixed value is selected, enter the fixed value.
 - Bypass will not require additional information (only available for IDOC)
 - Mapped value will require a referencing table to be selected along with the key value. Then map it with the table field.
- 4. Save mapping, select transport and package to complete.



Delete a Replication Model

- 1. Choose the replication model to delete from the list on the left side of the screen.
- 2. In the Interface Details section, click the Interface Details button.



3. Choose a transport and confirm.



Master Data Consolidation (Process Templates)

Master data consolidation refers to the process of combining and centralizing master data from disparate sources into a single system. It enables organizations to establish and enforce consistent policies, standards, and processes for managing master data. Users with SAP versions before 2022 may experience limited functionality for this feature.

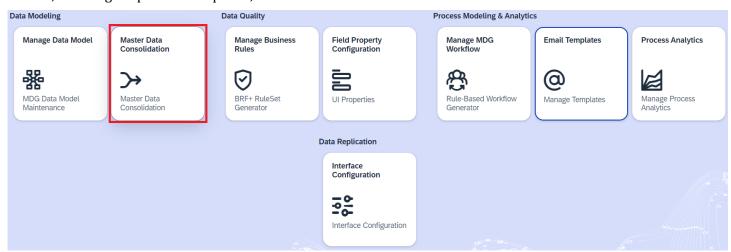
In SAP, process templates are predefined sets of steps and configurations that streamline and standardize the master data consolidation process.

Consolidation can be done on Source and Active records. Source consolidation would generally be used in migration, whereas active record consolidation would be used in keeping data cleansed in day-to-day operations.

Process Steps available depend upon the Business Object Type and Process Goal selected.

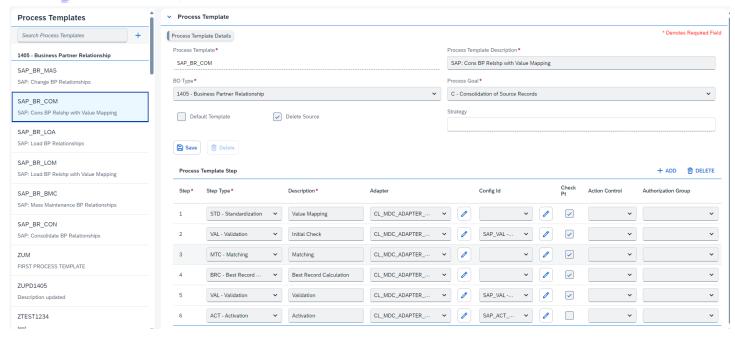
- Standardization
- Update
- Matching
- Enrichment
- Best Record Calculations
- Validation
- Filter and Remove
- Evaluation
- Replication
- Activation

In RDG, to configure process templates, choose the Master Data Consolidation tile.

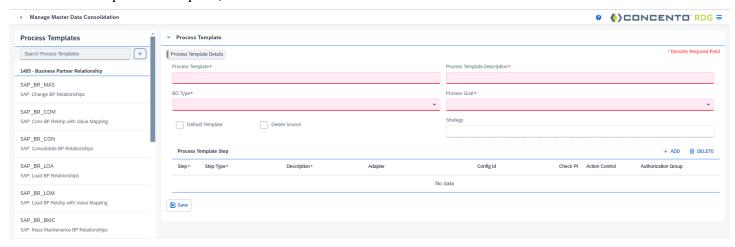


Standard and any existing custom process templates will be shown.



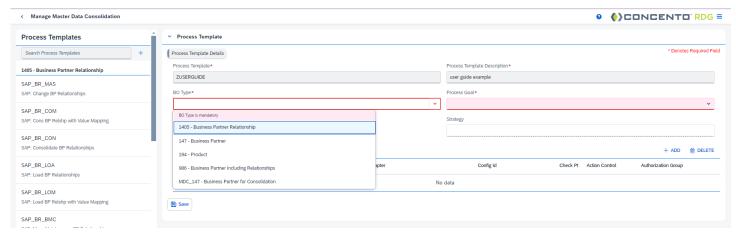


To create a new process template, click +

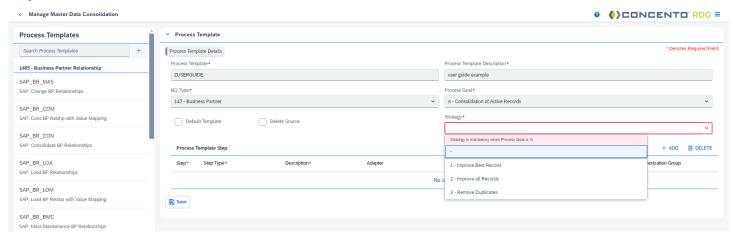




Enter a name and description for the process template. Names must begin with Y or Z. Then choose a Business Object Type. Available process goals will be filtered based on the BO Type selected. The BO types and process goals available will be dependent on the version of MDG being used.



After BO Type and Process Goal are selected, if Strategy is required, it will show in red. Otherwise, it will be read-only.

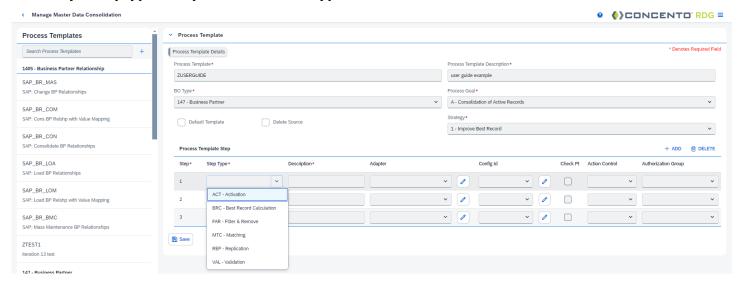




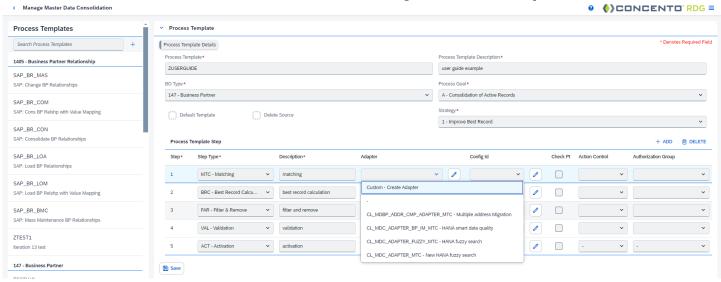
If Process Goal B is selected, steps are not valid and cannot be added to the process template.



Add as many steps as required. RDG ensures that step selection and order are valid and will not create errors. Availability of step types is dependent on the BO Type and Process Goal.

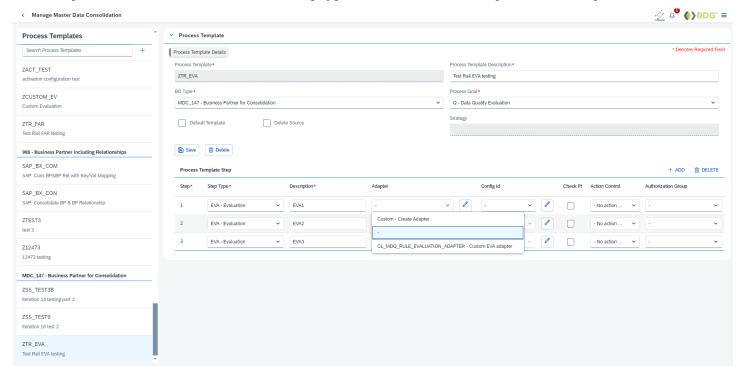


Add adapters and configurations as required. Creating custom configurations is currently only supported for the Evaluation, Best Record Calculation, Filter and Remove, Matching, and Evaluation steps.

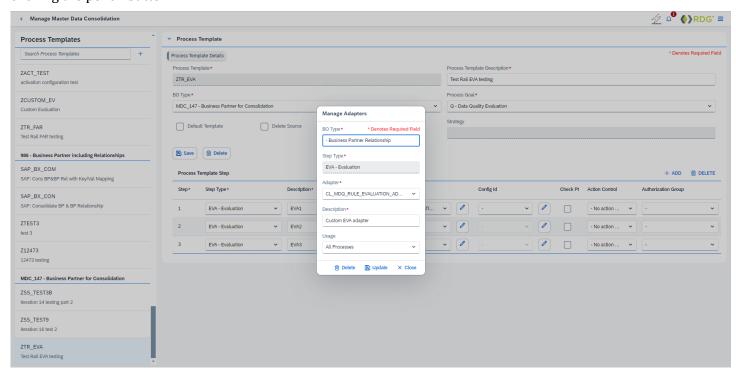




For example, if Evaluation is selected for the step type, select or create an adapter for that step.

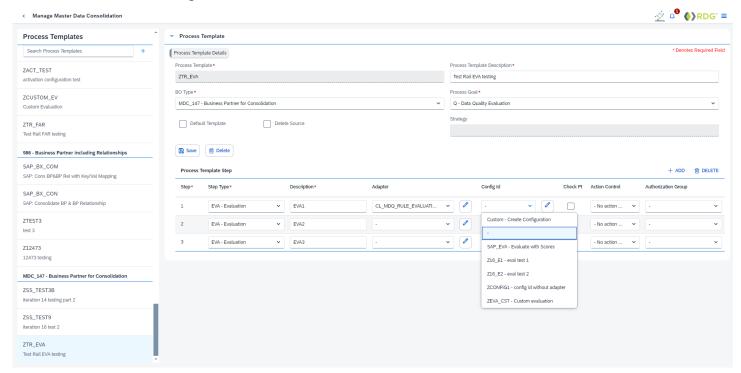


If creating a custom adapter, enter details. These details can be edited later by selecting it from the box and clicking the pencil button.

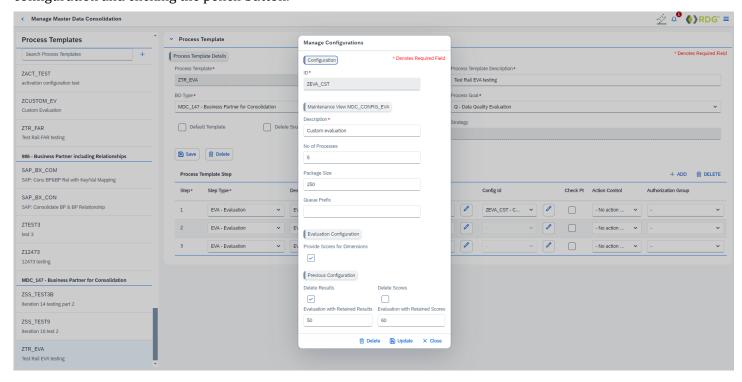




Then select or create a configuration.

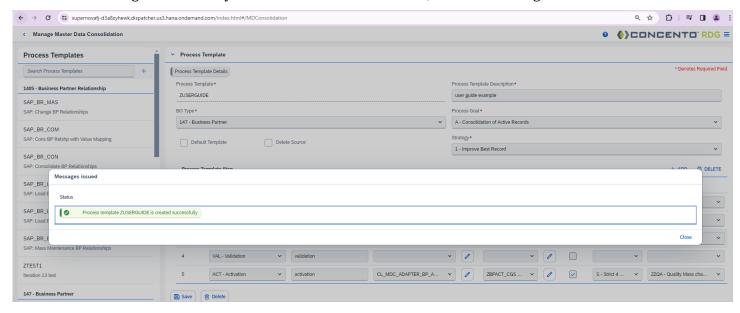


If creating a custom configuration, enter the details. These details can be edited later by selecting the configuration and clicking the pencil button.





When changes are finished, click Save and select a transport request. RDG will validate the steps and selections added before saving to ensure they are valid. If there are no errors, a success message will be shown.





Process Analytics

Process analytics provide analytics capability to enable master data specialists to get real-time insights into change request processes, monitor open and completed change requests, identify and fix process gaps and errors. SAP version greater than or equal to 2022 is required.

CDS views are used to retrieve the data and display the information in intuitive ways. Data is brought from the master data tables and CDs views are created. Those views will be used to create analytical report apps in Fiori or can be consumed on the SAP analytics cloud.

Configuration Steps

- 1. Generate the basic CDS views for each data model.
- 2. Configure and then generate custom analytical views with the entities/attributes desired for the analytical report. For each view that is created, SAP generates an OData service to create the Fiori/analytics cloud report.
- 3. Configure analytics report.
- 4. Configure a KPI/ALV report to display the information in a UI5 application, including drill down.

If changes are made to the data model, views should be regenerated.

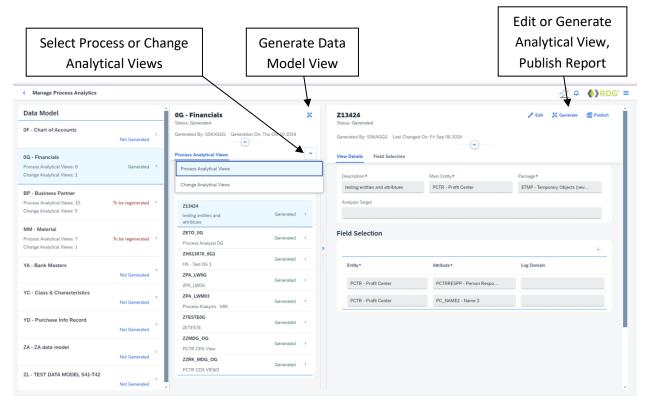
These steps can be completed in RDG. From the home screen, choose the Process Analytics tile.



The first panel lists all the data models available in the system. Each data model will show the status of the view, whether Generated, Not Generated, or To be regenerated. In the second panel, there is a button to generate the data model view for the data model selected. Select from either Process or Change Analytical views. If a view is selected, the details will be displayed in the third panel, and can be edited, generated, or report published.

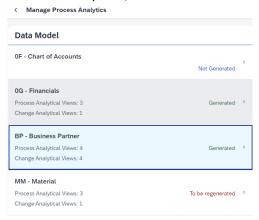
If a data model view or analytical view is generated, this process can take several minutes to complete. Refresh the screen to see the updated status.





Adding a New Analytical View

1. From the first panel, select a data model.



2. From the second panel, click +





ZPA_BP

3. Provide the required details for the view. Save. After Save, click Generate. Generation may take several minutes.

X Cancel Edit

^ View Details Field Selection Name* Description* Main Entity* ZPA_BP Process Analysis - BP BP_HEADER - Business Partner Package* Analysis Target \$TMP - Temporary Objects (never transported!) - All Change Requests **Field Selection** Entity* Attribute * Log Domain DEFLTCOMM - Comm. Metho AD_POSTAL - Physical Ad... 🗸

4. To generate the Fiori report, click Publish.



Al Assistant

The RDG AI assistant can be used to access Help information for any screen in RDG, create help desk tickets, and create business rules based on data from a spreadsheet.

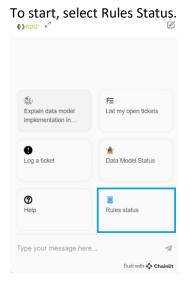
The AI assistant can be accessed by clicking the Supernova link at the top right of

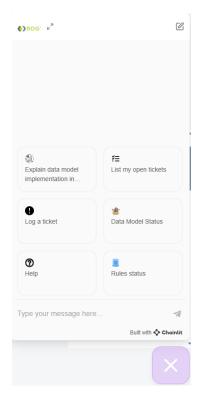
the screen. This will display the AI icon at the bottom right side of the screen.

A pop-up window with tile options will display.

Business Rules Creation

Business rules can be created by AI when read from an uploaded spreadsheet. Rules can be created by AI for entities and attributes in BP, MM, and OG data models only.





A prompt to upload the specification document containing the Business Rules to be created by the AI will be displayed.





Editing the upload file for AI Business Rules

The uploaded spreadsheet should have this format.

Seq	Data model	Entity	Attribute	Condition	Rule Type	ZAI_TEST	ZAI_MM	ZAI_0G
1	MM	MATERIAL	BISMT	Old Material Number is a required field	1		Χ	
				If search term 2 in not between 10 and 20, give the user a warning message "Check the search				
2	BP	BP_CENTRL	BU_SORT2	term value"	2	X		
3	BP	BP_CENTRL	BU_SORT2, BU_SORT1	If search term 2 in not equal to 100, derive the value of search term 1 as 150	3	Χ		
				If state is TX and city is Plano, then create an information message with message class				
4	BP	AD_POSTAL	RFE_POST, CITY1	ZRDG_MSG_CLASS and message number 002	4	X		
				If Liquidation date of organization is Current Date, derive Date organization founded to be				
5	BP	BP_CENTRL	FOUND_DAT, LQUID_DAT	Current Date also	5	X		
				If material type equals BUND and Purchase Order Unit of Measure equals 'KGK -				
6	MM	MATERIAL, MARAPURCH	MTART, BSTME, MBRSH	Kilogram/Kilogram' then derive value for Industory sector to be 'P'. No cross entity.	5		X	

- **Sequence**: unique identifier for the rule in the file
- Data Model: data model within which the rule is being created
- Entity: listed entities that are referenced in the rule, separated by a comma
- Attribute: listed attributes of the entities that are referenced in the rule, separated by a comma
- Condition: written description of the rule
 - Description of the attribute(s), with any driving and deriving values
 - For validation rules, indicate whether the message is from a Message Class or Custom Message
 - For Message Classes, indicate the message class and message number
 - Indicate the message type: Information, Warning, or Error message
 - Include values for placeholders in messages if required
 - For derivation rules, if using string concatenation or mathematical formula, provide all the required values
 - For multivalue derivation rules, indicate whether cross-entity (with keys/non keys or with non keys) is required
- Rule Type: rule type being created by the Al. Enter 1, 2, 3, 4, or 5 only.
 - 1: Mandatory Rule
 - 2: Single Value Validation Rule
 - o 3: Single Value Derivation Rule
 - o 4: Multi Value Validation Rule
 - o 5: Multi Value Derivation Rule
- Change Request Types:
 - List applicable change request types in column headers
 - o Indicate which change request type(s) are applicable for that specific rule by entering "x"

Uploading and AI Analysis of Rules Template File

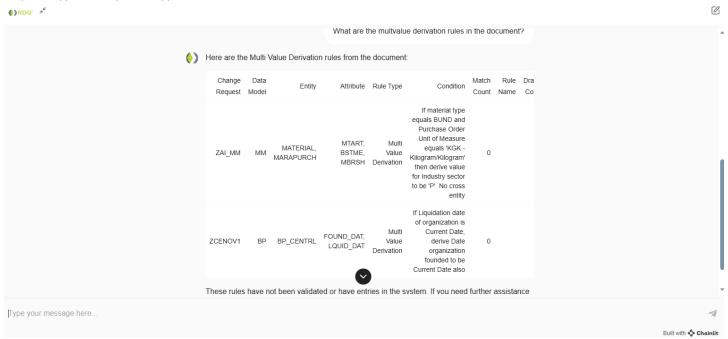
Select Browse Files and navigate to the local directory where upload file is located. Once uploaded the AI will analyze the contents of the file and generate a report with the following:

- Total Rules from Document: total number of rules in the document
- Rules with Validated Entries in the System: identifies number of rules once the AI generated rule has been created, validated and activated by the user in RDG
- Rules Crafted by AI but Not Yet Validated: number of rules in the document that have already been created by the AI
- Rules Without Entry in the System: number of rules in the document that have yet to be created by the AI



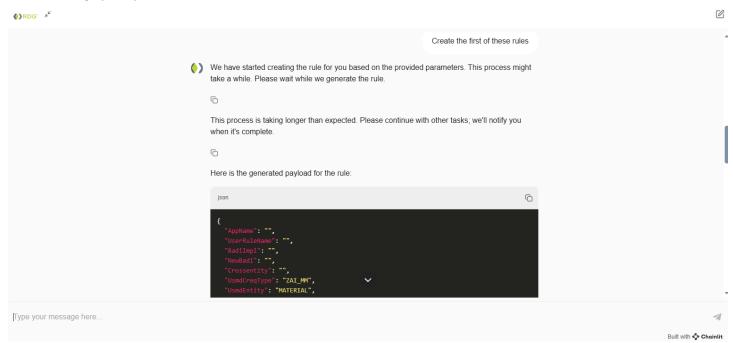
Displaying Rules in the Uploaded Template

In the message prompt, ask the AI to display rules filtered by the upload template parameters like data model, change request type, entity, rule type, etc.



Creating AI Rules

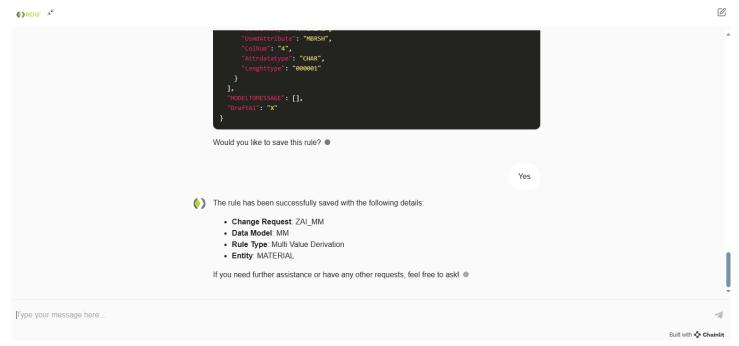
In the message prompt ask the AI to create the desired rule(s).





Saving AI Created Rules

Ask the AI to save the rule(s).



Displaying AI generated rules in RDG

Select the AI Generated checkbox in Business Rules of RDG to view only the AI generated rules which will be indicated with a Supernova icon in the AI column.

