

## **How To... Master Data Governance for Material: Using Data Replication Framework**

Applicable Releases:  
**EhP6, MDG 6.1, MDG7.0**

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## Document History

Document Version	Description
1.00	First official release of this guide
1.10	Additional SAP notes and hints
1.20	Background information for using DRF for Materials
1.30	Update for RBWF
1.40	Updates to chapter 3.5 Key Mapping (including ALE Audit), new chapter 3.6
1.50	Updates to chapter 3.3 IDoc Reduction
1.60	Small corrections
1.70	Updates to 3.1 and new chapter 3.9

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## 1. BUSINESS SCENARIO

SAP Master Data Governance for Material (MDG-M) provides business processes to find, create, change, and mark material master data for deletion. It supports the governance of material master data on a central hub and the distribution of material master data to connected operational and business intelligence systems.

The processes are workflow-driven and can include several approval and revision phases, including collaboration between all users participating in master data maintenance.

The data replication framework (DRF) can be used to replicate data from the Master Data Governance (MDG) hub to target systems.

You can replicate master data changes carried out centrally either manually or automatically in the background using the data replication framework (DRF). Filters allow you to configure replication settings. You can replicate data between the Master Data Governance hub and operational systems by means of enterprise services, IDoc's, or file download functions. For Material only MATMAS IDoc & CLFMAS IDoc for periodic distribution is available.

This guide provides background information about the Data Replication Framework (DRF).

The guide also describes also how to set up the system to enable immediate distribution of changes in the material master during activation of the material. This is described in SAP Note 1764329.

## 2. PREREQUISITES

Makes sure that the following SAP Notes are implemented in the system if required:

1910800 Error in replication using different replication models  
1933608 Error in filtering objects while replication with DRF based Web UI  
1934302 Segment filters do not get applied from DRFF when doing DRF based replication for Material  
1935559 Issue in replication of material to multiple business system with different replication models  
1947942 performing DRF replication, MDG change pointer gets reset for materials which are not indexed in ESH  
1952654 Materials which gets delayed in indexing in enterprise search are not getting filtered for DRF replication  
2080421 DRF: Reduced IDoc message types cannot be sent  
2084728 Reduced IDoc message types for MDG implementations  
2093396 Reduced Message Type

## 3. BACKGROUND INFORMATION/TROUBLESHOOTING ON DRF FOR MATERIAL

### 3.1. Restrictions

1517867 Functional restrictions in MDG-M in EhP5  
1571467 Functional restrictions in MDG-M in EhP6  
1701437 Functional restrictions in MDG-M in MDG6.1  
1806108 Functional restrictions in MDG-M in MDG7 (incl. SP02)  
2129261 Functional restrictions in MDG-M in MDG8

The DRF Material outbound implementation supports only ALE message types MATMAS (with PRODVERSION) und CLFMAS.

There is no integration of ALE message types Quality Inspection Setup (MATQM01), Material Ledger (MATERIALVALUATION\_PRICECHANG01) and Documents (DOCMAS and DOLMAS).  
For distribution of these ALE message types you can use the standard ALE distribution.

ALE and DRF Distribution for MRP Areas is not possible as no IDOC exists for distribution of MRP Areas (MDMA).  
Flex Entities are not supported by the DRF Material outbound implementation.

### 3.2. DRF Set Up, Customizing and Online Help

See the chapter 'Set Up Data Replication Using ALE with DRF' in the Configuration Guide for MDGM.

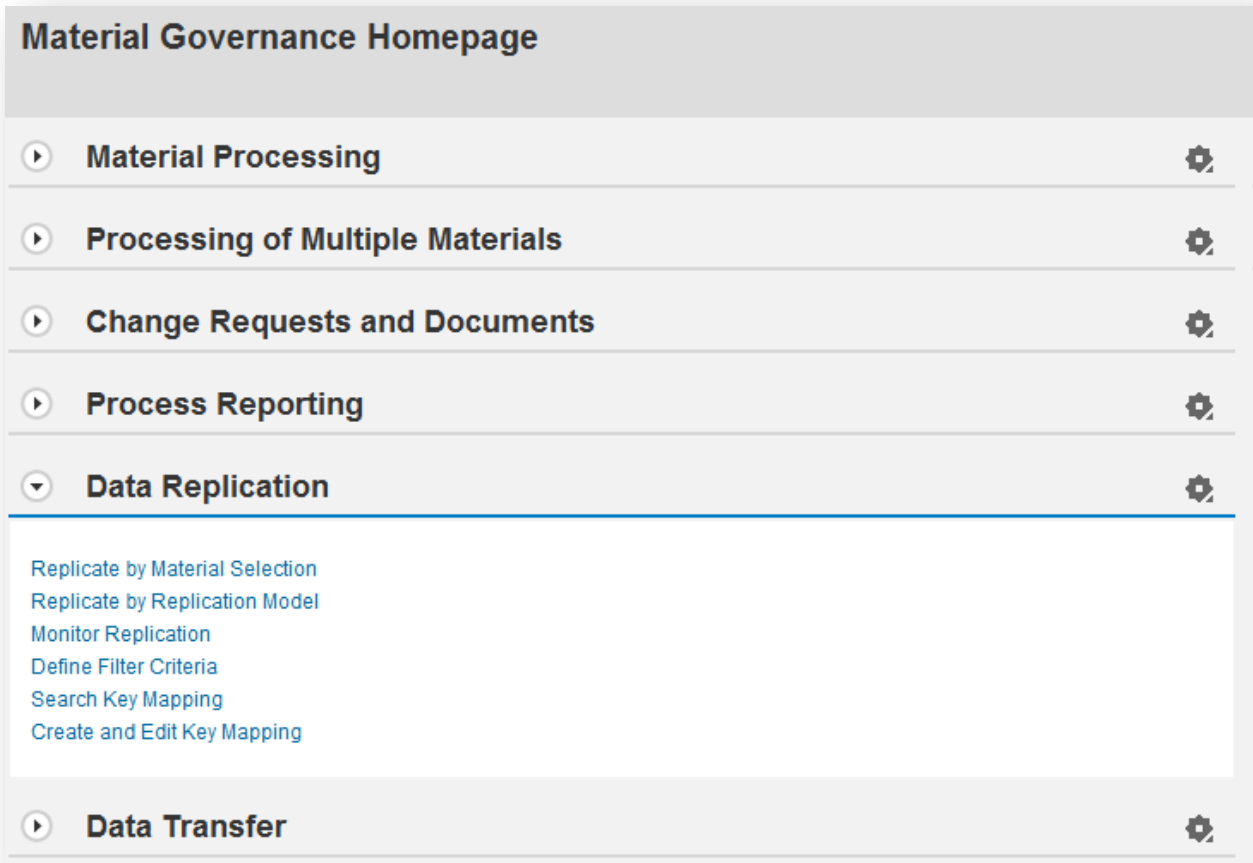
- EhP6:  
[http://help.sap.com/erp2005\\_ehp\\_06/helpdata/en/b2/9a55fd374848a1b70679180b08514b/frameset.htm](http://help.sap.com/erp2005_ehp_06/helpdata/en/b2/9a55fd374848a1b70679180b08514b/frameset.htm)
- MDG7.0:  
[http://help.sap.com/erp\\_mdg\\_addon70/helpdata/en/5b/362c74ba324597ace35c6422370afe/content.htm?frameset=/en/f6/91242bc626461984f15c9684fe2fa5/frameset.htm](http://help.sap.com/erp_mdg_addon70/helpdata/en/5b/362c74ba324597ace35c6422370afe/content.htm?frameset=/en/f6/91242bc626461984f15c9684fe2fa5/frameset.htm)

DRF Online Help MDG7.0

[http://help.sap.com/erp\\_mdg\\_addon70/helpdata/en/10/4bf4bff9c54d7796d266605a4111fd/content.htm?frameset=/en/bf/c3b321489348a2892ec9e1eb357084/frameset.htm](http://help.sap.com/erp_mdg_addon70/helpdata/en/10/4bf4bff9c54d7796d266605a4111fd/content.htm?frameset=/en/bf/c3b321489348a2892ec9e1eb357084/frameset.htm)

### 3.3. Web Dynpro Applications

Web Dynpro applications can be found here on the material governance homepage:



Or you can use transaction DRFOUT in SAPGUI. For scheduled distribution with a background job you should use a variant of transaction DRFOUT.

### 3.4. IDoc Reduction

#### Scenario:

You have defined a reduced IDoc type, which creates a new message type. You have also registered it for a target system, but DRF does not create an IDOC.

#### Solution:

Implement SAP note 2080421 - DRF: Reduced IDoc message types cannot be sent, SAP note 2084728 - Reduced IDoc message types for MDG implementations and SAP note 2093396 - Reduced Message Type

#### Workaround:

If you can't implement these SAP notes, you can use this as a workaround.

The message type "MATMAS" is hard coded in Method SEND\_MATMAS\_IDOC of class CL\_MDG\_MAT\_IDOC\_DRF. This class is used in the outbound implementation I\_MAT for DRF.

Display View "Define Outbound Implementation": Overview

Dialog Structure	Define Outbound Implementation	C. Channel	Service Operation	Outbound Implementation Class	FilterTime	Name in ESR
Define Outbound Imple	OutImpl. Outbound Implementation Description					
Assign Segment Filter	I_MAP Moving Average Price	Replication via RFC		CL_DMF_MAV_OUT	<input type="checkbox"/>	
Assign Outbound Pair	I_MDI Outbound implementation for material	Replication via IDoc		CL_MDG_MAT_IDOC_DRF	<input type="checkbox"/>	
Define Values of	I_MCH Merchandise Category Hierarchy	Replication via RFC		CL_DMF_MCH_OUT	<input type="checkbox"/>	
Assign Entity Type a	I_PPM	Replication via RFC		CL_DMF_OUT_RETAIN_PUBIT	<input type="checkbox"/>	

Search for the usage IF\_MDG\_MAT\_DRF\_CONSTANTS=>GC\_MATMAS. You have to replace the hard coded message type using an overwrite exit on this method, or by creating your own outbound implementation (inheriting from class CL\_MDG\_MAT\_IDOC\_DRF).

### 3.5. Replication of Deletion

#### Scenario:

You have replicated a material with a number of descriptions and long texts. You then delete some descriptions/long texts (or any other segment where deletion is possible) and replicate the material again using IDoc and DRF. The deletions do not reach the target system.

#### Root cause:

DRF for Material does not support message function '003' (deletion). DRF for material always sends the full material. ALE/DRF filters are of course considered.

#### Solution options:

Using only ALE:

Sending a segment deletion is supported in standard ALE (transaction BD21). This option doesn't need additional coding.

Using DRF or ALE:

This option needs additional coding in the target systems. If it is possible to determine which data gets deleted in the target system, you can also implement the IDoc Inbound BADl IDOC\_DATA\_MAPPER in the target system. In this BADl, set the segment's message function (MSGFN) to '003' (deletion). This enables the IDoc inbound (usually function module IDOC\_INPUT\_MATMAS01) to delete the data.

This above case works for segments that are solely maintained on the hub (no data added in the target system). If one such segment exists in the target system's database but not in the IDoc, then this could be considered an indication that this segment must be deleted. These rules and the implementation are project specific so no example coding is provided.

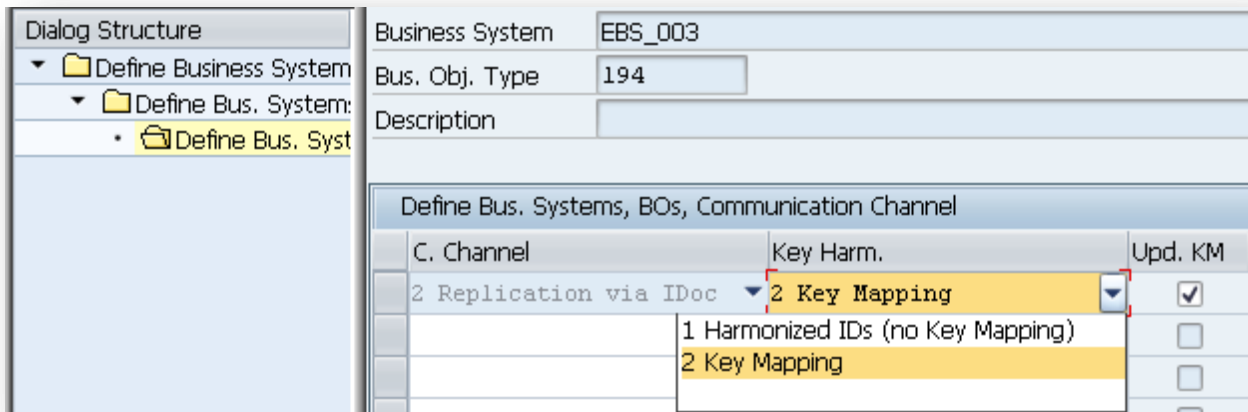
### 3.6. Key Mapping (including ALE Audit)

If possible, harmonized material numbers in your landscape are considered best practice. This would avoid key mapping completely, but is not always possible (legacy systems with non-harmonized material numbers ...). In this case, MDGM also supports key mapping.

#### Key mapping

For key mapping of material numbers, IDoc types MATMAS01..5 and CLFMAS01..2 use the 'Object Identifier Type Code' number 20 "Material ID (internal format) (ERP)". MDG-M supports the following three options, based on the settings in "Define Technical Settings for Business Systems"

1. "Harmonized IDs": Key mapping not considered
2. "Key Mapping" and ("Update KM via ALE audit" unchecked or BD10 outbound):
  - o Key mapping needed for material
  - o DRF/ALE outbound fails if key mapping is missing
3. DRF only: "Key Mapping" and "Update KM" (via ALE audit) checked:
  - o Key mapping considered if available
  - o Otherwise, the hub sends its Material number; client can
    - Either accept it and confirm via ALE audit
    - Or provide new, internally assigned Material number; this material number gets returned via ALE Audit and the key mapping gets updated on Hub; for ECC IDoc inbound with internal numbering, check <http://scn.sap.com/thread/1954090>



### How to customize ALE Audit

You can configure your client and hub systems so that your client systems send confirmation of replicated materials back to the MDG hub. The technology that is used for this is called “ALE auditing”. The customizing for ALE audit is described in the configuration guide, chapter customizing for ALE Audit (Optional). ([Link to configuration guide MDG7.0](#))

### ALE audit and classification IDoc’s

#### Scenario:

Option 3 (ALE audit) is used to replicate material with classification, key mapping required, update via ALE Audit active (key created in target system)

#### Challenge:

The CLFMAS IDoc’s must not be sent until ALE audit has returned the material number of the target system and updated the key mapping. To ensure this, the classification outbound will fail with an error message in the ALE replication log (BD87) if no key mapping was found. Thus, the MDG change pointers will be set to processed but the CLFMAS IDoc will not be sent but instead get an error status.

Note that no message is written into DRF log, only ALE log (as it was there where the replication failed).

After ALE audit has updated the key mapping, the CLFMAS IDoc’s need to be replicated again. Unfortunately, this replication can’t be automated from ALE audit.

#### Solution:

Prerequisite is SAP note 2030807.

Type	Solution
<b>Initial Load</b>	Retrigger replication for materials whose CLFMAS IDoc’s have failed – check BD87. No work list available.
<b>Delta</b>	Delta is driven by change pointers → new change pointers created for failed classification IDoc’s → for next periodic replication, material including CLFMAS will be sent again
<b>Manual</b>	Restart replication for materials whose CLFMAS IDoc’s have failed – check BD87. No work list available.
<b>CR Activation</b>	Custom coding: WAIT task until DRF replication status indicates that the ALE Audit was finished, then restart replication

Note that the restart sends CLFMAS IDoc as well as the corresponding MATMAS IDoc, which is somewhat redundant.

### 3.7. Value Mapping

For value mapping see How To Guide How to... MDG-M: Use the Data Import Framework (<http://scn.sap.com/docs/DOC-47519>), chapter Value Mapping.

The customizing is valid for inbound and outbound.



### 3.8. Filter criteria

**Filter Object** - Defines the selection criteria used to determine the data objects which should be replicated. It combines one or more filters. Maintenance of the selection criteria is done by the master data steward.

**Filter** - Carries out the comparison of a given set of objects against the maintained filter criteria. It *returns the list of objects that match the filter criteria*. In order to apply filters sequentially on the same object list, they can be combined in Filter Objects. Filter types available: *Explicit (simple and complex) and implicit*. *Segment Filters* are special filters that generally do not limit the number of objects but the amount of data in the object itself.

**Explicit filters** are configured explicitly by the customer

- **Simple filters** are defined per attributes on a single ERP entity root table - e.g. fields MATNR, MATKL and MTART of table MARA. The evaluation of simple filters is generic in the way that it can be easily enhanced just by adding another attribute to the filter using append technology (no code change necessary).
- **Complex filters** are not directly related to the ERP entity root table but need to get evaluated by certain function modules or methods like selected nodes of the article hierarchy or merchandise category hierarchy. The semantically interpretation of complex filters is coded using the corresponding APIs. To enhance complex filters code changes are necessary.

**Implicit filters** are offered by the system

- In addition to simple and complex filter the system offers implicit filters (reusable APIs). They are executed by the system and can only be switched on or off using the configuration on the Replication Model/Outbound Implementation level.
- Examples are checks of certain material/store combinations due to listing conditions or selling periods

**Segment filters** are used to exclude parts ("segments") of the Business Object from replication.

The delivered outbound implementation I\_MAT has the following filter criteria's, which you can find in the MDG customizing: General Settings->Data Replication->Enhance Default Settings for Outbound Implementations->Define Outbound Implementations.

- Main filter in outbound implementation with Filter Object MDG\_BS\_MAT
- Segment filters F\_MAT1 bis F\_MAT6

If these filter are not sufficient you can create your own outbound implementation with own filters. Filters are defined in the MDG customizing: General Settings->Data Replication->Enhance Default Settings for Outbound Implementations->Define Filter Objects.

### 3.9. Change Pointer Handler

#### Scenario:

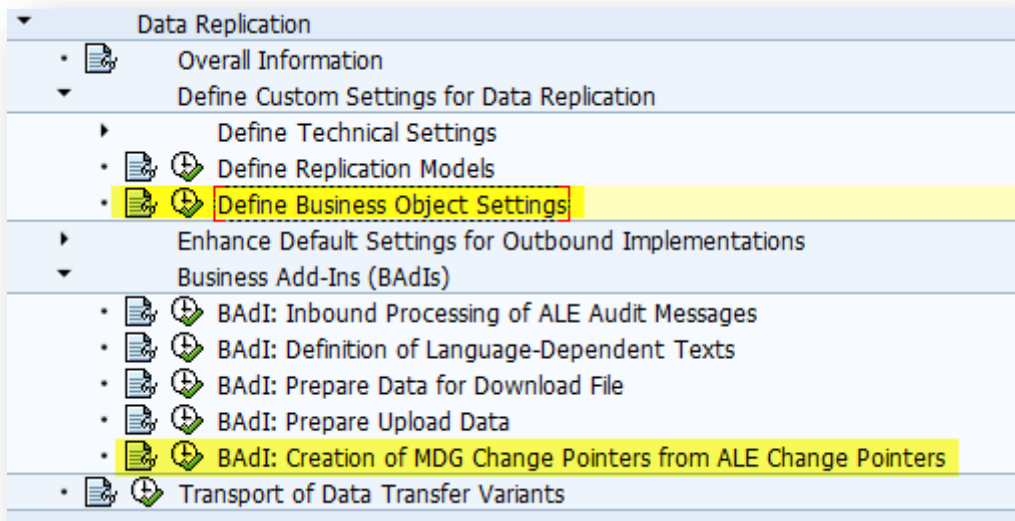
You want to have change pointers only if certain fields have changed. This can be done easily in ALE (using ALE change pointers). But MDGM writes MDG change pointers instead, which are always created on any changes of material or its classification.

#### Solution:

The MDG change pointer creation is triggered by a BTE (Business Transaction Event) as stored in table TBE31. To prevent this creation, you should exchange/remove the two entries for MDG\_BS\_MAT\_DRF\_CP and MDG\_BS\_CLF\_DRF\_CP. This is a modification.

In addition different change pointer should be written. This could be achieved by:

- Alternative 1: Copy function module MDG\_BS\_MAT\_DRF\_CP and change the coding according to your requirements. Then exchange the function module in table TBE31.
- Alternative 2: Use ALE-BAdI BDCP\_BEFORE\_WRITE. There you can create MDG change pointers if ALE change pointers are created for the ALE-Message type. Prerequisite is the assignment of ALE-Message Type to the Business Object.



## 4. STEP-BY-STEP EXPLANATION FOR IMMEDIATE REPLICATION

For the material domain SAP supports periodic distribution using DRF. Use the periodic distribution with DRF to have a proven, pursuable, and stable process.

The described solution in the How To Guide for immediate distribution requires custom enhancements and is done on project basis. SAP code or application samples and tutorials are not for production use. You may have to adapt it to your use cases.

Do not use immediate distribution if you want to use replication filters for outbound implementation. The filtering mechanism uses Enterprise Search and indexing may be delayed, preventing the materials from being distributed. Workaround: Use the ALE-Filters for the model (BD64). These filters are considered in addition to the DRF filters. A different solution is to disable enterprise search for DRF (see chapter 5.3. Enable database search in Material DRF implementation in the How To Guide <http://scn.sap.com/docs/DOC-44779>).

The following detailed explanation shows the activities for one CR type. If you want to use immediate replication for the material domain, it is advisable to do this for all CR types. Otherwise it would be difficult and require additional effort to ensure that the change point handling does not interfere with direct replication.

### 4.1. Prerequisites

Check that you are either on SP04 of software component MDG\_FND 7.31 or the notes have been applied successfully. If not, use transaction SNOTE to apply the notes mentioned in SAP note 1764329.

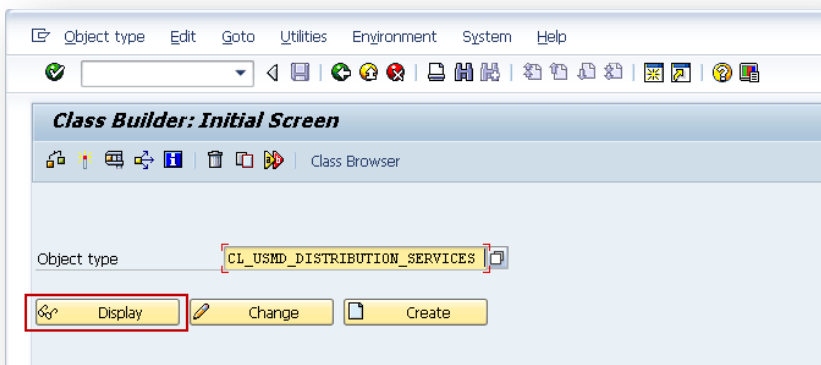
### 4.2. Create an Enhancement for Activation of Immediate Distribution

Use transaction SE24 to create an enhancement for the class CL\_USMD\_DISTRIBUTION\_SERVICES and implement the post-method for the method DISTRIBUTE\_MATERIAL. Insert the following line:

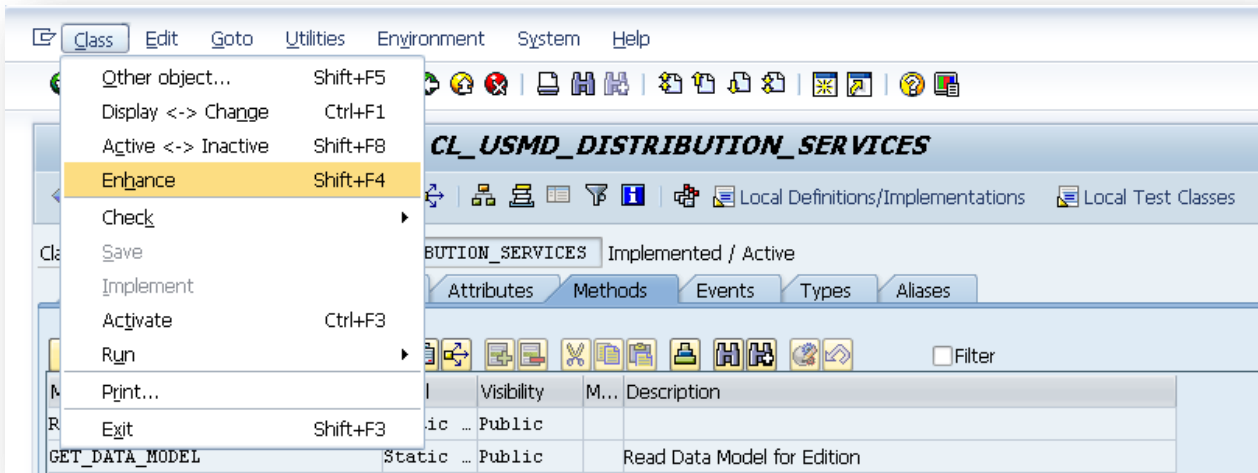
```
er_distribute_material = ABAP_TRUE.
```

A quick guide how to enhance methods can be found in SDN. The following document follows this approach: <http://wiki.sdn.sap.com/wiki/display/ABAP/Enhancement+Framework+-+Class+Enhancements+-+Pre-exit,+Post-exit+and+Overwrite-exit+methods+-+Concept+and+Simple+Scenarios>

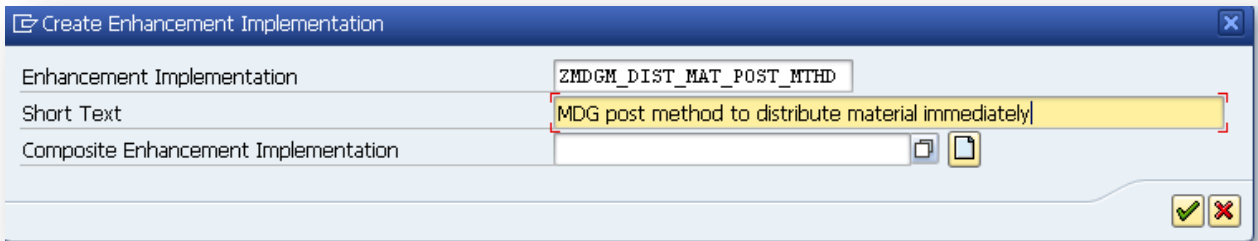
Start transaction SE24 (Class Builder). Enter the Object type CL\_USMD\_DISTRIBUTION\_SERVICES and continue in display mode.



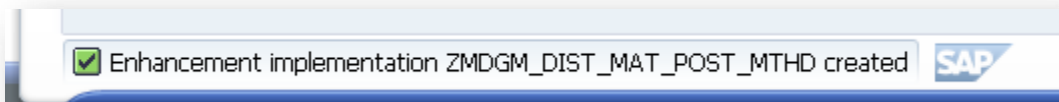
Start the enhancement on Class level:



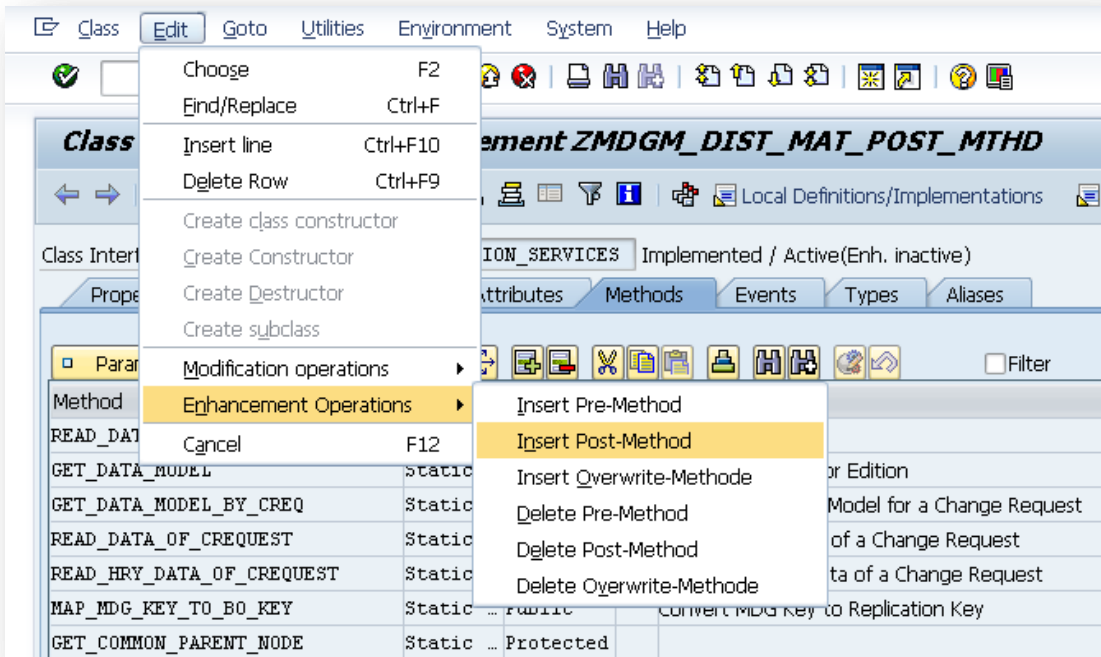
Enter the key and description.



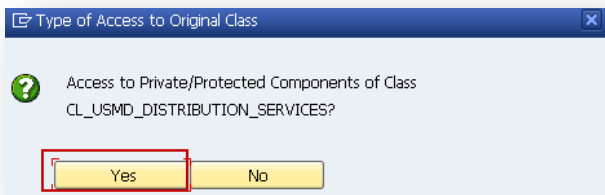
Assign an existing customer package and link your enhancement to a transport request. You should receive a success message:



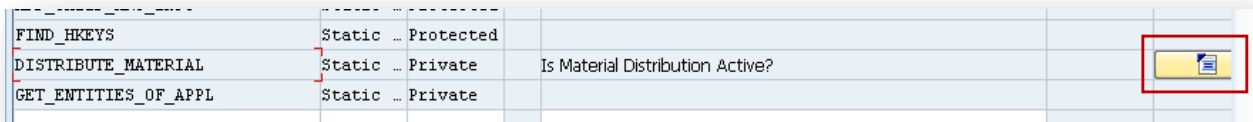
Ensure that the cursor is on the private method DISTRIBUTE MATERIAL. Now insert the Post-Method in the enhancement.



Confirm the access to the private components (here the private method DISTRIBUTE MATERIAL).



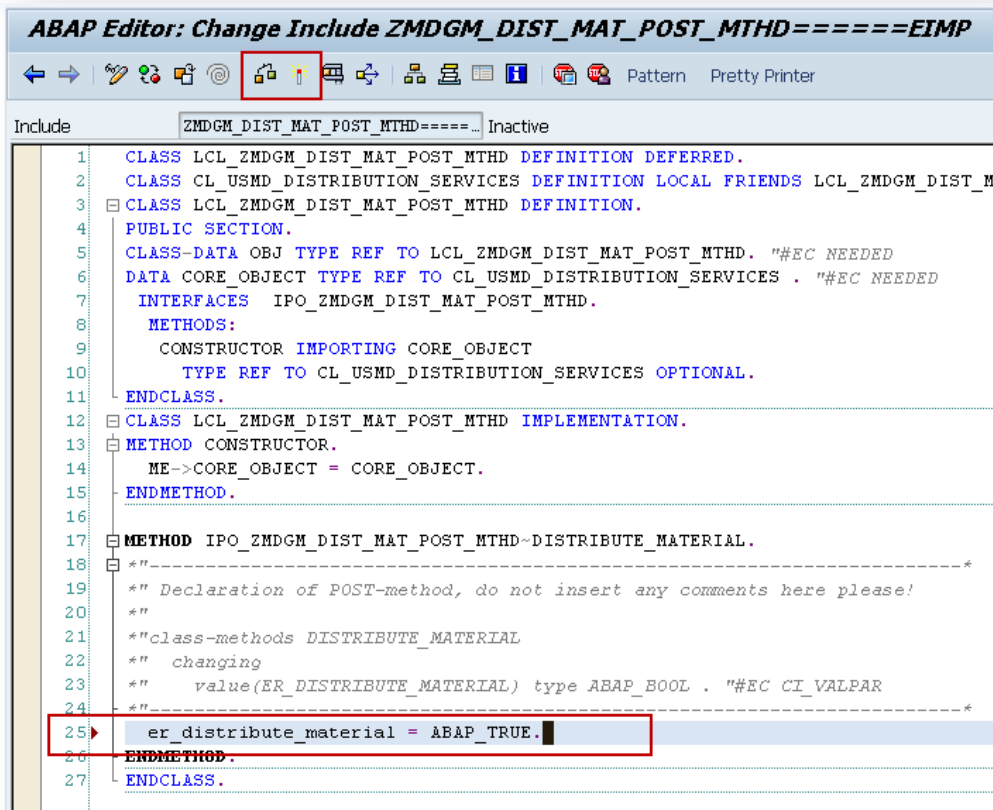
You now find the enhancement in the method overview. Navigate into the enhancement:



Confirm the save.



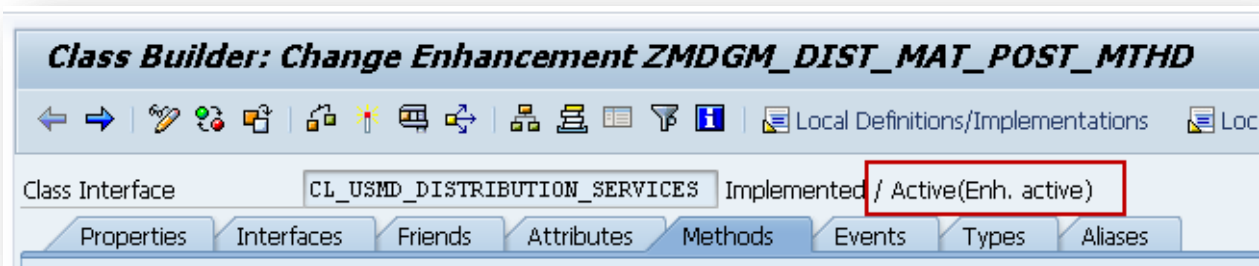
Now you can insert the coding line: "er\_distribute\_material = ABAP\_TRUE."



```
ABAP Editor: Change Include ZMDGM_DIST_MAT_POST_MTHD=====EIMP
Include ZMDGM_DIST_MAT_POST_MTHD===== Inactive
1 CLASS LCL_ZMDGM_DIST_MAT_POST_MTHD DEFINITION DEFERRED.
2 CLASS CL_USMD_DISTRIBUTION_SERVICES DEFINITION LOCAL FRIENDS LCL_ZMDGM_DIST_M
3 CLASS LCL_ZMDGM_DIST_MAT_POST_MTHD DEFINITION.
4 PUBLIC SECTION.
5 CLASS-DATA OBJ TYPE REF TO LCL_ZMDGM_DIST_MAT_POST_MTHD. "#EC NEEDED
6 DATA CORE_OBJECT TYPE REF TO CL_USMD_DISTRIBUTION_SERVICES . "#EC NEEDED
7 INTERFACES IPO_ZMDGM_DIST_MAT_POST_MTHD.
8 METHODS:
9 CONSTRUCTOR IMPORTING CORE_OBJECT
10 TYPE REF TO CL_USMD_DISTRIBUTION_SERVICES OPTIONAL.
11 ENDClass.
12 CLASS LCL_ZMDGM_DIST_MAT_POST_MTHD IMPLEMENTATION.
13 METHOD CONSTRUCTOR.
14 ME->CORE_OBJECT = CORE_OBJECT.
15 ENDMETHOD.
16
17 METHOD IPO_ZMDGM_DIST_MAT_POST_MTHD-DISTRIBUTE_MATERIAL.
18 *-----*
19 ** Declaration of POST-method, do not insert any comments here please!
20 **
21 **class-methods DISTRIBUTE_MATERIAL
22 ** changing
23 ** value(ER_DISTRIBUTE_MATERIAL) type ABAP_BOOL . "#EC CI_VALPAR
24 *-----*
25 er_distribute_material = ABAP_TRUE.
26 ENDMETHOD.
27 ENDClass.
```

Also check, save, and activate.

Navigate back and activate the whole class. You also should see now that the enhancement is active:



#### 4.3. Copy Workflow Template

Decide if you want to use a rule-based workflow template or a classical one. Copy one of the delivered workflow templates (WS60800086 – Rule-based or WS46000057 - Classical).

#### 4.4. Assign Workflow Template to Change Request Type

Assign your new workflow template, which can be a rule-based workflow template or a classical one, to a change request type. In this document we use the change request type ZEMMAT01.

**Change View "Type of Change Request": Overview of Selected Set**

New Entries | BC Set: Change Field Values

Type of Chg. Request	Data Model	Description (medium text)	Objects Required	Single Object	Parallel	Main Entity Type	Workflow
ZEMMAT01	M	Create Material w immediate distribution	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	MATERIAL	WS99700002

#### 4.5. Adjust Workflow Template

The activation task, TS60808002, for material processing must be adjusted. The parameter NO\_DISTRIBUTE must be set to 'X', otherwise the enhancement for the class CL\_USMD\_DISTRIBUTION\_SERVICES would trigger the replication in the activation step (method Activate\_2 for object type BUS2250).

Instead an additional dedicated step for replication should be used.

##### 4.5.1. Using a Rule-Based Workflow Template

##### 4.5.1.1. Adjust Activation Task

Use a copy of the delivered rule-based workflow template WS60800086 because changing the binding of the activation task would be a modification.

Start the workflow builder using transaction SWDD for your new workflow template and select the relevant *Activate Change Request* step. Click on the binding for the task. Create a binding for the parameter NO\_DISTRIBUTE of the activation task TS60808002.

The screenshot shows the 'Change Binding For Step' dialog box. The left pane lists workflow steps, including 'ACTIVATION\_ERROR' and 'SWAP\_PROCESSOR'. The right pane lists parameters, including 'NO\_DISTRIBUTE'. The binding configuration below shows the following mappings:

Binding Workflow	Step 'Activate Change Request'
&LAST_USER_AGENT&	&RELEASED_BY&
&CHANGE_REQUEST&	&_WI_OBJECT_ID&
'X'	&IGNORE_SNAPSHOT_DIFF&
'X'	&NO_DISTRIBUTE&

#### 4.5.1.2. Insert Data Replication

Include the process pattern "04 Data Replication" in the decision tables of the rule-based workflow. Start MDG customizing using transaction MDGIMG and run the following activity: **General Settings** > **Process Modeling** > **Workflow** > **Rule-based Workflow** > **Define Change Request Steps for Rule-Based Workflow**.

Add the replication step to the steps for rule-based workflow, for example, "RP Replicate Data".

**Change View "Workflow Step Numbers": Overview of Selected Set**

New Entries BC Set: Change Field Values

Workflow Step Numbers				
Type of Chg. Request	CR Step	Keys	Validation	Description (medium text)
ZEMMAT01	0	<input type="checkbox"/>	<input type="checkbox"/>	Processing
ZEMMAT01	90	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Final Check
ZEMMAT01	91	<input type="checkbox"/>	<input type="checkbox"/>	Activation
ZEMMAT01	92	<input type="checkbox"/>	<input type="checkbox"/>	Revision
ZEMMAT01	93	<input type="checkbox"/>	<input type="checkbox"/>	Validation
ZEMMAT01	95	<input type="checkbox"/>	<input type="checkbox"/>	Revision Processing
ZEMMAT01	99	<input type="checkbox"/>	<input type="checkbox"/>	Complete
ZEMMAT01	RP	<input type="checkbox"/>	<input type="checkbox"/>	Replicate Material Data

Start the Customizing under **General Settings** > **Process Modelling** > **Workflow** > **Rule-Based Workflow** > **Configure Rule-Based Workflow** (or transaction: USMD\_SSW\_RULE) to adjust the BRFplus tables for the relevant Change Request type.

In the single value decision table DT\_SINGLE\_VAL\_ZEMMAT01, put the new step "RP" after the activation and before the end of processing. Switch to edit mode.

For the step 91 *Activation* and action 31 *Activation Successful*, replace the New CR Step from "99 Complete" to "RP" and change the New CR Status to 08 *Approved, to Be Replicated*.

Make sure that workflow ends properly after the replication. To do this, add two additional lines with condition alias 9 and 10 that set, for step RP, the next status and step depending on the replication results (99 and 05 or 90 and 11).

00 (Processing)		1	90 (Final Check)	02 (Changes to Be Executed)
90 (Final Check)	09 (Activate)	2	91 (Activation)	02 (Changes to Be Executed)
90 (Final Check)	04 (Reject)	3	95 (Revision Processing)	10 (To Revise: Perform Changes)
91 (Activation)	31 (Activation successful)	4	RP (Replicate Material Data)	08 (Approved, to Be Replicated)
91 (Activation)	<>31 (Activation successful)	5	90 (Final Check)	11 (Process Errors After Activation)
92 (Revision)		6	99 (Complete)	06 (Final Check Rejected)
RP (Replicate Material Data)	21 (Successfully executed)	9	99 (Complete)	05 (Final Check Approved)
RP (Replicate Material Data)	<>21 (Successfully executed)	10	90 (Final Check)	11 (Process Errors After Activation)
95 (Revision Processing)	07 (Resubmit)	7	90 (Final Check)	02 (Changes to Be Executed)
95 (Revision Processing)	08 (Withdraw)	8	92 (Revision)	02 (Changes to Be Executed)

Save and activate your changes.

Now you have to add the automated step to start the replication in the non-user agent decision table DT\_NON\_USER\_AGT\_GRP\_ZEMMAT01.



For condition alias 4 add the new process pattern 04 *Data Replication*.  
 The former entry for 4 to complete the workflow now moved to the “complete” line/Condition Alias 9.

4	001	04 (Data Replication)
9 ; 6	001	99 (Complete (Sub-)Workflow)
8	001	08 (Roll Back Change Request)
2	001	05 (Activation (Do Not Bypass Snapshot))

Save and activate.

Add the condition alias 10 to the agent decision table DT\_USER\_AGT\_GRP\_ZEMMAT01.

1 ; 5 ; 7 ; 10	001	8 (Activate Change Request)	AG (Role)	SAP_MDGM_MENU_05
3	001	4 (Revise Change Request)	AG (Role)	SAP_MDGM_MENU_05

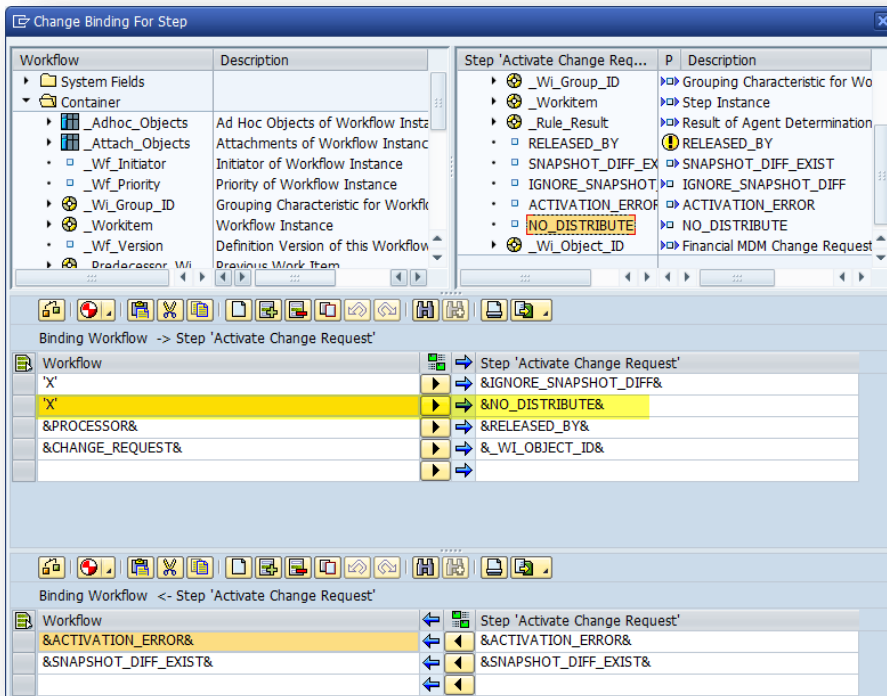
Save and activate.

#### 4.5.2. Using a Classic Workflow Template

##### 4.5.2.1. Adjust activation task

There is also a workflow template without BRFplus, which covers the same processes as mentioned above. Copy the delivered workflow template WS46000057 because changing the binding of the activation task would be a modification.

Start the workflow builder using transaction SWDD for your classic workflow template and scroll down to the relevant Activate Change Request step. Select the binding for the task. Create a binding for the parameter NO\_DISTRIBUTE of the activation task TS60808002.

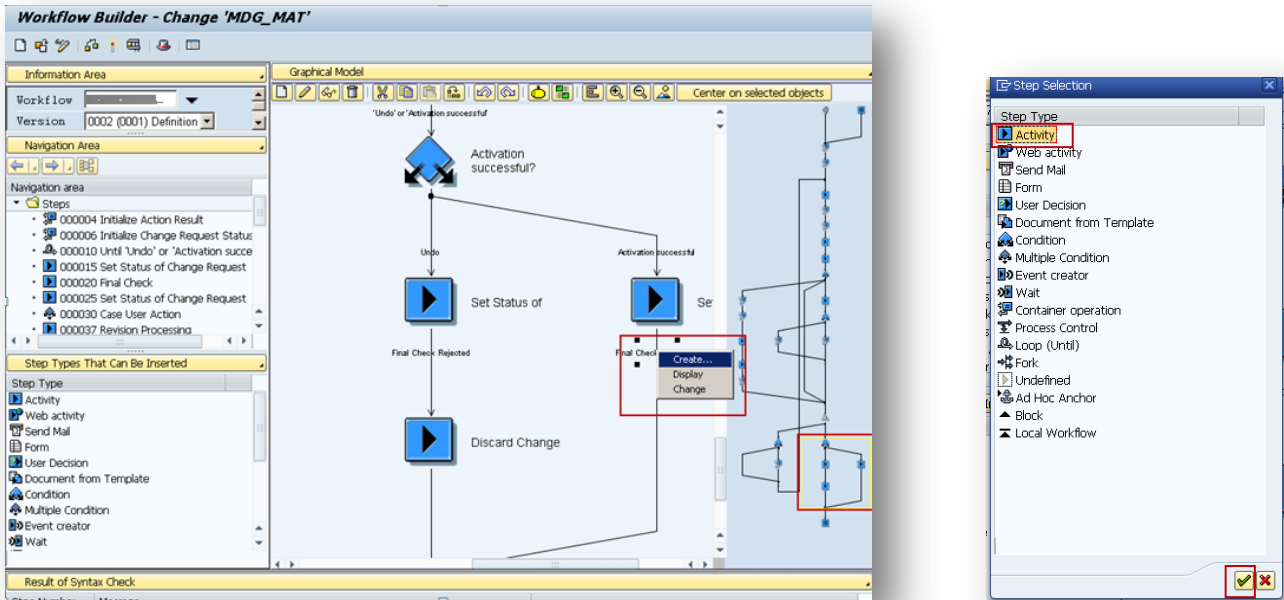


Save, go one step back to the Workflow level, and activate.

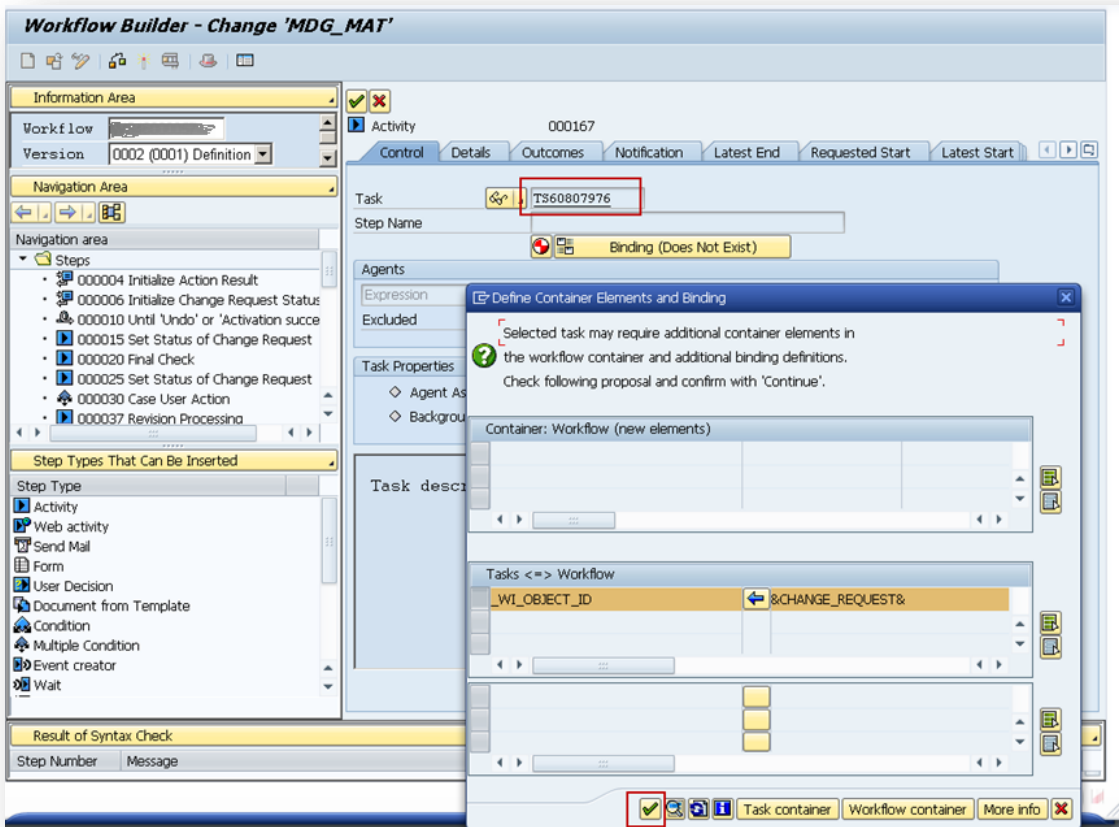
#### 4.5.2.2. Insert step for Data Replication

The distribution task TS60807976 must be included in the workflow template.

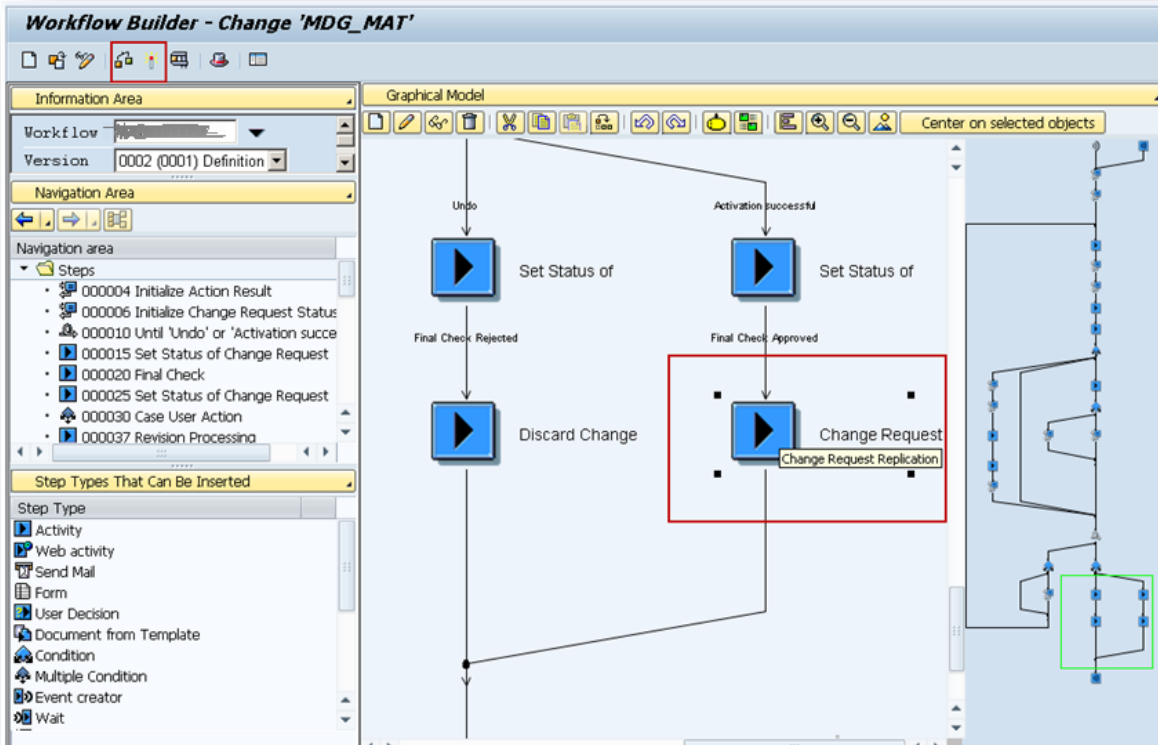
Start the workflow builder using transaction SWDD for the workflow template. Focus on the branch after the successful activation. Mark the text for final check approved and right-click to create a new step.



Enter the new Activity "distribution task TS60807976". Press enter and accept the default binding.



Navigate back. Check, save, and activate your changes.



#### 4.6. Removing the DRF change pointers

Note that, when you use this procedure of direct distribution, the MDG change pointers for DRF are still written but not processed. To get rid of these change pointers, you can schedule the report RMDGCPCLR regularly to delete the relevant change pointers or you schedule a periodic additional DRF distribution to process the change points.

##### 4.6.1. Create the report variant for the deletion report

Use SE38 to create the necessary variants for the program RMDGCPCLR.  
Use Business Object 194 (Material) and status CR (Created).

**Edit Variants: Variant MDG\_M\_CPCLR**

Variant Attributes ⓘ

Search Criteria

Business Object.	194		
Status	CR		
Business System	R3_800		
Created on		to	14.02.2013
Created at	00:00:00	to	23:59:59

Additional runtime parameters

Test Run

##### 4.6.2. Schedule the job(s)

Use the following menu path or start transaction SM36 directly. You can either use the Job wizard or define the steps and execution parameters directly

Job Edit Goto System Help

Define Background Job

Start condition Step Job selection Own jobs Job wizard Standard jobs

General data

Job name	RMDGCPCLR - daily
Job class	C
Status	Scheduled
Exec. Target	

Spool list recipient

Job start Job frequency

## 5. TEST RULE-BASED WORKFLOW

Create a change request with change request type ZEMMAT01. Submit and activate the change request and review the workflow log.

It should look like the image below if you started with the delivered standard BRFplus workflow template:

Workflow Log for Change Request 2857					
Related Services					
Status	Final Check Approved	Description	Test w Distribution	Requester	EI
View:	* [Standard View]	Print Version	Export	Background Steps	
Work Item ID	Work Item Description	Processor	Work Item Type	Work Item Status	Decision
414403	Get Process Pattern	Workflow-System	Background Step	Completed	
414402	Check If Single Agent-Group Processing	Workflow-System	Background Step	Completed	
414401	Set Status 05 for Change Request 2857	Workflow-System	Background Step	Completed	
414400	Agent and Route Finder	Workflow-System	Background Step	Completed	
414399	Get Change Request Attributes	Workflow-System	Background Step	Completed	
414398	Assign Action Code	Workflow-System	Background Step	Completed	
414397	Distribute Change Request 2857	Workflow-System	Background Step	Completed	
414396	Get Process Pattern	Workflow-System	Background Step	Completed	
414395	Check If Single Agent-Group Processing	Workflow-System	Background Step	Completed	
414394	Set Status 08 for Change Request 2857	Workflow-System	Background Step	Completed	
414393	Agent and Route Finder	Workflow-System	Background Step	Completed	
414392	Get Change Request Attributes	Workflow-System	Background Step	Completed	
414391	Assign Action Code	Workflow-System	Background Step	Completed	
414390	Activate Change Request 2857	Workflow-System	Background Step	Completed	
414389	Get Process Pattern	Workflow-System	Background Step	Completed	
414388	Check If Single Agent-Group Processing	Workflow-System	Background Step	Completed	
414387	Set Status 02 for Change Request 2857	Workflow-System	Background Step	Completed	
414386	Agent and Route Finder	Workflow-System	Background Step	Completed	
414385	Get Change Request Attributes	Workflow-System	Background Step	Completed	
414384	Process Change Request 2857 (Test w Distribution)	EI	Dialog Step	Completed	Activate
414383	Set Completion Time	Workflow-System	Background Step	Completed	
414382	Get Process Pattern	Workflow-System	Background Step	Completed	

The line with status 08 indicates it successfully activated and then triggered the replication. The line with status 05 indicates that the replication was triggered successfully.

You can check the log in Replication Monitoring:

**Replication Monitoring: Replication DRF MM with ALE**

New Selection

Business Object Material Time From 07.05.2014 00:00:00 Time To 16.05.2014 09:38:26

**Replication Logs : Replication DRF MM with ALE**

Propagated Type/Date/Time/User

- ▼ 14.05.2014 08:53:13 WF-BATCH
  - ▼ Process outbound implementation Outbound implementation for material (L\_MAT)
    - ▼ Replication to business system QMH\_410
      - Filter object MDG\_BS\_MAT - MDG: filter for material: end result of filtering 1
      - ▼ Process Messages
        - Number of MATMAS Idocs created : 1
        - IDoc 000000000208020 with a data record was transferred
        - Number of CLFMAS Idocs created : 1
        - IDoc 000000000208021 with a data record was transferred
        - Processing of outbound implementation I\_MAT completed

Check your replication status by search and replication status:

**Search: Materials**

Saved Searches: [dropdown]

**Search Criteria**

Material is P-140514\*

Description (medium text) starts with

Material Group is

Search [Clear Entries] [Reset to Default]

Maximum Number of Results: 100

Save Search As: [input]

**Result List: 1 material found**

[New] [Copy] [Mass Change] [Multi-Processing] [Replication Status] [Replicate]

P...	Material	Description	Material Type	Base UoM	Material Group	Authorization Group	Lab/Office	Old Material Number
	P-140514-01	P-140514-01	HALB	EA	01		001	

**Replication Status Information - Microsoft Internet Explorer**

**Replication Status Information**

No key mapping found

**Object Selection**

Business Object Type: Material

Object ID Type: Material ID (internal format) (ERP)

Material: P-140514-01

[Search]

**Replication Status Information**

View: [Standard View] [Print Version] [Export]

Status	Target System	Object ID Type	Object ID	Message Number	Change Request	Com.Channel	Application Log	Date	Time
○○○	QMH_410	Material ID (internal format) (ERP)		000000000208020	2857	Replication via IDoc	Display Log	14.05.2014	08:53:14

Check the successful IDOC processing in your source system using BD87.

**Note:** For a complete monitoring overview, you need to consider the DRF log (DRFLOG) as well as the ALE log (BD87). Errors in ALE layer are not always reflected in the DRF log.

Logon to your target system and verify that the IDoc has been received using BD87 or if material is created, using MM03.

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