



Configuration Guide for SAP Asset Information Workbench by Utopia for S/4HANA

Release 2.0

Document History

The following table provides an overview of the most important document changes and approvals.

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1. Introduction

This document provides the information required to set up SAP Asset Information Workbench (AIW) by Utopia.

1.1. Purpose

This Configuration Guide provides the information required to set up Master Data Governance (MDG) for Asset Information Workbench by Utopia (AIW).

1.2. Target Audience

This guide is designed to help the following end users:

- Functional and Technical consultants who configure the MDGIMG settings.
- System administrators who deploy and configure SAP Business objects.
- Solution Architects and Application end users who refers to the guide while using the MDG applications.

1.3. Organization

This guide primarily consists of the following sections.

- Introduction
- Prerequisites/Before You Start
- Set Up Workflow
- Configuration Process

2. Prerequisites/Before You Start

You have successfully installed and configured UGI EAM 9.1.

2.1. Prerequisite SAP OSS Notes

Note number	Short text	Application Component
2395896	MDG Read Buffer: Active Data removed from Buffer after Key C	CA-MDG-CMP-AF
2402164	MDG: Read Buffer - Remove Entity	CA-MDG-CMP-AF
2403348	Program termination in Multi-Record processing	CA-MDG-AF
2406084	MDG: Read Buffer - Remove, Delete, Discard of Entities	CA-MDG-CMP-AF
2348105	Remove object from the object list	CA-MDG-AF


2.2. Prerequisite EAM Related Utopia OSS Notes

Note number	Short text	Application Component
None		

3. Set Up Workflow

3.1. Set Workflow Task to General

Use the following steps to set the Workflow Task to General:

1. Navigate to the transaction code SWDD.
The Workflow Builder is displayed.
2. Enter Workflow as WS80000008.
3. Click on 000073-Dialog Processing Task (TS80000022) from the Navigation area.
4. Click on  Agent assignment for task icon corresponding to Agent Assignment in the Task properties.
The Standard Task: Maintain Agent Assignment screen is displayed.
5. Click on the “Attributes” button.
The Attributes details dialog box is displayed.
6. Select the parameter as “General Task” and click Transfer.

3.2. Set Up Search

Refer UGI EAM 9.1 Configuration Guide.

3.3. Adjust Profile Parameters

Refer UGI EAM 9.1 Configuration Guide.

3.4. User Role

To successfully conduct the steps in the configuration process, you must have the following user role assigned in the PFCG transaction:

/UGI7/AIW_REQ: Asset Master Data Governance for AIW: Requester.

The following roles have been created for AIW.

Role Name	Description
/UGI7/AIW_MENU	SAP Asset Information Workbench by Utopia: Menu
/UGI7/AIW_REQ	SAP Asset Information Workbench by Utopia: Requester
/UGI7/AIW_SPEC_EQUI	SAP Asset Information Workbench by Utopia: Specialist-Equipment
/UGI7/AIW_SPEC_FUNCLOC	SAP Asset Information Workbench by Utopia: Specialist-Functional Location
/UGI7/AIW_SPEC_MPLAN	SAP Asset Information Workbench by Utopia: Specialist-Maintenance Plan
/UGI7/AIW_SPEC_MSPOINT	SAP Asset Information Workbench by Utopia: Specialist- Measuring Point
/UGI7/AIW_SPEC_OBJLINK	SAP Asset Information Workbench by Utopia: Specialist- Object Link
/UGI7/AIW_SPEC_OBJNETWRK	SAP Asset Information Workbench by Utopia: Specialist - Object Network

Role Name	Description
/UGI7/AIW_SPEC_PMBOMHDR	SAP Asset Information Workbench by Utopia: Specialist-MRO BOM
/UGI7/AIW_SPEC_TLEQHDR	SAP Asset Information Workbench by Utopia: Specialist- Equipment-Tasklist
/UGI7/AIW_SPEC_TLFLHDR	SAP Asset Information Workbench by Utopia: Specialist- Funloc-Tasklist
/UGI7/AIW_SPEC_TLGNHDR	SAP Asset Information Workbench by Utopia: Specialist- General Tasklist
/UGI7/AIW_SPEC_WORKCNTR	SAP Asset Information Workbench by Utopia: Specialist- Work Center
/UGI7/AIW_STEW	SAP Asset Information Workbench by Utopia: Steward

3.5. Web Dynpro Applications

Refer UGI EAM 9.1 Configuration Guide.

3.5.1. Web Dynpro Application for POWL

Application: /UGI7/MDG_EAMWB_POWL_INBX is created for serving the POWL Inbox.

Application: /UGI7/MDG_EAMWB_POWL_INBX Saved

Properties Parameters

Description: MDG EAM Workbench POWL Inbox

Component: /UGI7/MDG_EAMWB_POWL_INBX

Interface View: POWL_WINDOW

Plug Name: DEFAULT

Help Links

Application: /UGI7/MDG_EAMWB_POWL_INBX Saved

Properties Parameters

Parameters	Value	Type	Description
WDPREFERREDRENDERING	STAND_ONLY	WDUI_HTML_RENDER_MODE	HTML Render Mode
WDUIGUIDELINE	FIORI	WDR_APP_PROP_UIGUIDELINE	UI Guideline

3.5.2. Web Dynpro Component for POWL

Web Dynpro Component: /UGI7/MDG_EAMWB_POWL_INBX (AIW POWL Inbox) is created for serving the POWL Inbox.

Web Dynpro Component: /UGI7/MDG_EAMWB_POWL_I... Active

Description: MDG EAM WorkBench POWL Inbox

Assistance Class: /UGI7/_POWL_WD_PERSONALIZATION

3.5.3. Review POWL Configuration

Personalization Application Hierarchy is created to describe the context in which one can use the Worklist.

Transaction Code: FPB_MAINTAIN_HIER

Personalization Application ID: /UGI7/_POWL_EAMWB_APPLID

Change View "Personalization Hierarchy": Overview

New Entries [Icons]

Dialog Structure: Personalization Hierarchy > Personalization Chara

Personalization Hierarchy	
Personalization Application	Text
/UGI7/_POWL_EAMWB_APPLID	POWL Application for AIW

Display View "Personalization Characteristics": Overview

Personaliz. App: /UGI7/_POWL_EAMWB_APPLID

Personalization Characteristics						
Field Name	InputHelp	Grp Value	Interval	Single Val	Ref. Data Element	
DEFAULT_QUERY	<input type="checkbox"/>	N None	M Multiple	M Multip...	POWL_QUERY_TY	
LAYOUT	<input type="checkbox"/>	N None	M Multiple	M Multip...	POWL_LAYOUT_TY	

3.5.4. Maintain POWL Query definition

Transaction Code: POWL_QUERY

Define the Standard Queries (content for Personal worklist)

Query ID: /UGI7/_POWL_EAMWB_QUERY_ID

Description: POWL Query for AIW

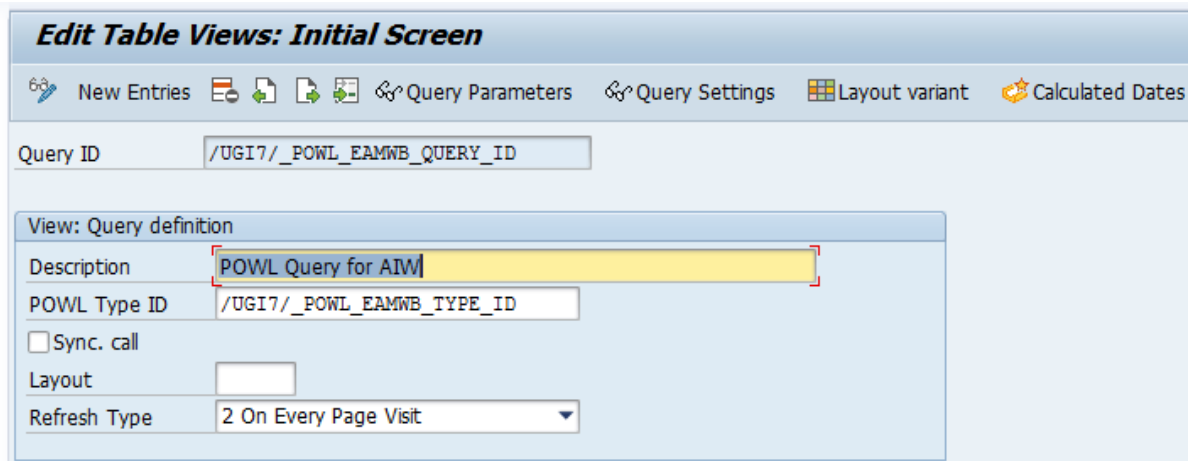
POWL type ID: /UGI7/_POWL_EAMWB_TYPE_ID

Edit Table Views: Initial Screen

New Entries [Icons] Check Authorizations

View: Query definition

Query ID	Description
/UGI7/_POWL_EAMWB_QUERY_ID	POWL Query for AIW



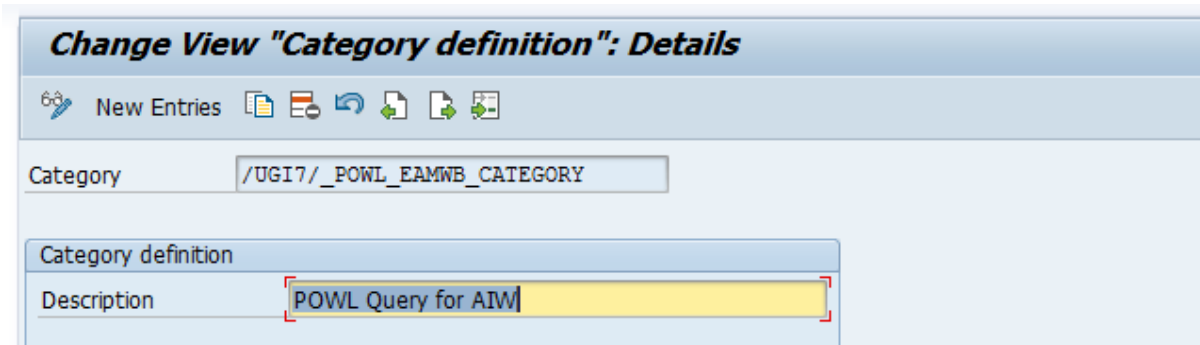
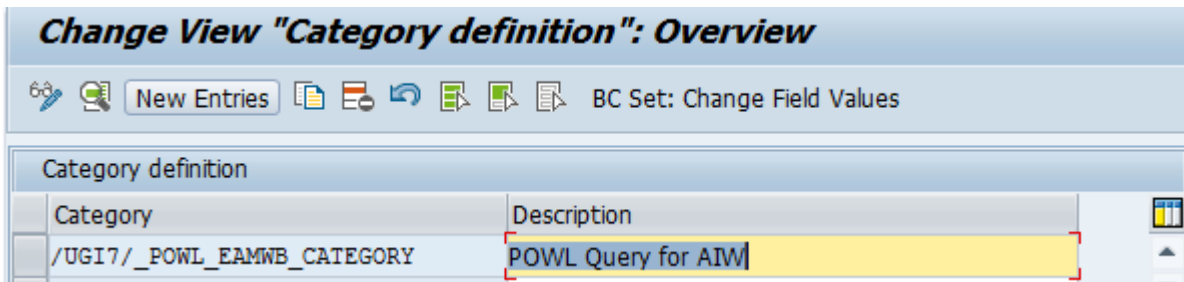
3.5.5. Maintain POWL categories

Transaction Code: POWL_CAT

Define Categories. The categories are used on the portal interface as an organizational structuring element for the queries. Queries that are assigned to a category appear together in the same block.

Category: /UGI7/_POWL_EAMWB_CATEGORY

Description: POWL Query for AIW



3.5.6. Maintain POWL Query Role assignment

Transaction Code: POWL_QUERYR

Define Query Visibility at Role level and assign a query to a role in this activity.

Application: /UGI7/_POWL_EAMWB_APPLID

Query Id: /UGI7/_POWL_EAMWB_QUERY_ID

Category: /UGI7/_POWL_EAMWB_CATEGORY

Change View "View: Query - Role assignment": Overview

New Entries [Icons] Check

View: Query - Role assignment		
Application	Query ID	Category
/UGI7/_POWL_EAMWB_APPLID	/UGI7/_POWL_EAMWB_QUERY_ID	/UGI7/_POWL_EAMWB_CATEGORY

Change View "View: Query - Role assignment": Details

New Entries [Icons] Check

Application: /UGI7/_POWL_EAMWB_APPLID

Role: [Empty]

Query ID: /UGI7/_POWL_EAMWB_QUERY_ID

View: Query - Role assignment	
Category	/UGI7/_POWL_EAMWB_CATEGORY
Description	POWL Query for AIW
Category sequence no	1
Query sequence no	1
Tab sequence no	1
<input checked="" type="checkbox"/> Activate	

3.5.7. Maintain POWL Type definition

Transaction Code: POWL_TYPE

POWL Type ID: /UGI7/_POWL_EAMWB_TYPE_ID

Description: Type ID for AIW

Feeder class: /UGI7/CL_MDG_EAM_WB_POWL_FEEDR

Change View "View: Type definition": Overview

New Entries [Icons] Check

View: Type definition	
POWL Type ID	Description
/UGI7/_POWL_EAMWB_TYPE_ID	Type ID for AIW

Change View "View: Type definition": Details

New Entries [Icons] Check

POWL Type ID: /UGI7/_POWL_EAMWB_TYPE_ID

View: Type definition

Description: Type ID for AIW

Feeder class: /UGI7/CL_MDG_EAM_WB_POWL_FEEDR

Sync. call

No Msg. Wrapping

3.5.8. Maintain POWL Type Role assignment

Transaction Code: POWL_TYPER

Define visibility of worklist type at role level to make worklist type visible for user role or user group.

Application: /UGI7/_POWL_EAMWB_APPLID

POWL Type ID: /UGI7/_POWL_EAMWB_TYPE_ID

Description: Type Id for AIW.

Change View "View: Type - Role assignment": Overview

New Entries [Icons] Check

View: Type - Role assignment

Application	R.. POWL Type ID	Description
/UGI7/_POWL_EAMWB_APPLID	/UGI7/_POWL_EAMWB_TYPE_ID	Type ID for AIW

Change View "View: Type - Role assignment": Details

New Entries [Icons] Check

Application: /UGI7/_POWL_EAMWB_APPLID

Role: [Empty]

POWL Type ID: /UGI7/_POWL_EAMWB_TYPE_ID

View: Type - Role assignment

Description: Type ID for AIW

3.6. Active Services in SICF

To use the Asset WB and POWL Application, the following services need to be activated:

Path: /default_host/sap/bc/webdynpro/ugi7/

All services can be activated together via the ugi7 node.

▶ ugi	Namespace
▼ ugi7	Namespace
• EAMWB_APP	Asset Information Workbench Application
• EAMWB_USMD_MOCR_CRE	Change Request
• MDG_EAMWB_POWL_INBX	MDG Asset Information Workbench POWL Inbox

Create/Change a Service

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Path: /default_host/sap/bc/webdynpro/ugi7/

Service Name: Service (Active)

Lang.: [Other Languages](#)

Description

Description 1:

Description 2:

Description 3:

Service Data | Logon Data | Handler List | Error Pages | Administration

Service Options

Web Service

Ignore inherited settings

Load Balancing:

SAP Authoriz.:

Session Timeout: (HH:MM:SS)

Compression:

Interactive Options

GUI Interface: [GUI Configuration](#)

Support Accessibility:

Create/Change a Service

Path

Service Name Service (Active) Altern. Name: EAMWB_USMD_MO...

Lang. [Other Languages](#)

Description

Description 1

Description 2

Description 3

Service Data | Logon Data | Handler List | Error Pages | Administration

Service Options

Web Service

Ignore inherited settings

Load Balancing

SAP Authoriz.

Session Timeout (HH:MM:SS)

Compression

Interactive Options

GUI Interface [GUI Configuration](#)

Support Accessibility

Create/Change a Service

Path

Service Name Service (Active) Altern. Name: MDG_EAMWB_POW...

Lang. [Other Languages](#)

Description

Description 1

Description 2

Description 3

Service Data | Logon Data | Handler List | Error Pages | Administration

Service Options

Web Service

Ignore inherited settings

Load Balancing

SAP Authoriz.

Session Timeout (HH:MM:SS)

Compression

Interactive Options

GUI Interface [GUI Configuration](#)

Support Accessibility

3.7. Number Ranges

Refer UGI EAM 9.1 Configuration Guide.

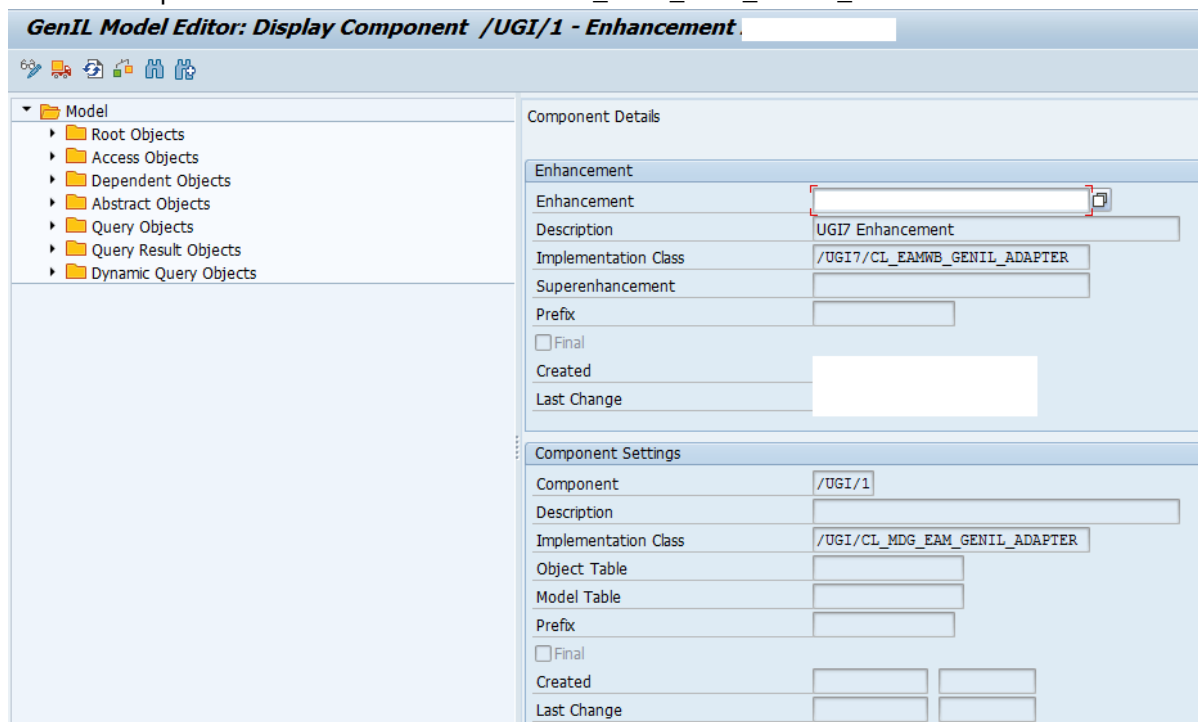
3.8. GenIL (Generic Interaction Layer) Component Adjustments

Refer UGI EAM 9.1 Configuration Guide.

3.8.1. GenIL (Generic Interaction Layer) Component Adjustments

This section describes how to create GenIL enhancement in customer(Y/Z) namespace and save. Use the following steps to create the GenIL enhancement and save:

1. Execute transaction GENIL_MODEL_BROWSER
2. Create an enhancement with component /UGI/1 and the following details:
 - Prefix: optional
 - Enhancement class: /UGI7/CL_EAMWB_GENIL_ADAPTER
 - Component Enhancement class: /UGI/CL_MDG_EAM_GENIL_ADAPTER



- Save this enhancement and there are no additional steps are required.

i Note

In case, a Z Customer Enhancement of the /UGI/1 GenIL component exist, then a Super Enhancement needs to be created to the current Existing Z Enhancement with the same settings above.

/ugi7/ enhancement needs to be a super enhancement of customer enhancement or vice versa.

3.9. Prerequisite Notes

Refer UGI EAM 9.1 Configuration Guide.


3.9.1. Specific Prerequisite Notes

Refer UGI EAM 9.1 Configuration Guide.

3.10. Prerequisite BC-Set activation

Refer UGI EAM 9.1 Configuration Guide.

3.10.1. BC-Set for AIW

- Activate () the following BC sets via transaction code SCPR20.

BC Set ID	BC Set Description
/UGI7/ASSETWB_CRTPES	Change Request Types for AIW
/UGI7/ASSETWB_CRTPES_02	Change Request Type Configuration for AIW 2.0
/UGI7/ASSETWB_HANDLER_ACTIVATION	Activate Handler Class for UGI enhancements
/UGI7/ASSETWB_POWL	BC Set for POWL configurations
/UGI7/ASSETWB_REASON_REJREASONS	Reasons and Rejection Reasons for AIW
/UGI7/ASSETWB_SERIAL_WORKITM_SEQ	Defining Work item approval sequence for AIW serial workflow
MDGAF_BCV	BCV Content for MDG Framework

Note

The BC Set /UGI7/ASSETWB_CRTPES_02 needs to be activated after the activation of /UGI7/ASSETWB_CRTPES.

MDGAF_BCV may have already been activated by SAP domain or EAM 9.1 configuration.

3.10.2. BC-Set for HANA Search

Refer UGI EAM 9.1 Configuration Guide.

4. Configuration Process

This section describes the minimal set of customizing steps and recommended check activities required to perform the following activities:

4.1. Activate the Data Model U1

Data Model U1 should already be active. For more information refer to UGI EAM 9.1 Configuration Guide.

4.2. Navigate User Interface

- Link Log. Actions with UI Application and Bus. Act.: Standard Definition
- Link Logical Actions with Business Activity: Standard Definition

4.2.1. Link Log. Actions with UI Application and Bus. Act.: Standard Definition

Refer UGI EAM 9.1 Configuration Guide.

4.2.1.1. AIW specific Entries

Add the following entries in mentioned path and save.

MDGIMG > General Setting > Process Modelling > Business Activities > Link Log. Actions with UI Applications and Bus Act: Standard Definition.

BO Type	Log.Action	Current UI application name	Current UI Configuration	Target UI Application Name	Target UI Configuration	Bus.Acty
1230	MASS	USMD_EDITION_CREQUEST	/UGI7/EAMWB_USMD_CREQ	USMD_OVP_GEN	/UGI/USMD_U1_OVP_MSPOINT	UMSA
183	MASS	USMD_EDITION_CREQUEST	/UGI7/EAMWB_USMD_CREQ	USMD_OVP_GEN	/UGI/USMD_U1_OVP_EQUI	UEQA
185	MASS	USMD_EDITION_CREQUEST	/UGI7/EAMWB_USMD_CREQ	USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	UFLA
1223	MASS	USMD_EDITION_CREQUEST	/UGI7/EAMWB_USMD_CREQ	USMD_OVP_GEN	/UGI/USMD_U1_OVP_MPMI	UMPA
493	MASS	USMD_EDITION_CREQUEST	/UGI7/EAMWB_USMD_CREQ	USMD_OVP_GEN	/UGI/USMD_U1_OVP_WORKCNTR	UWCA
237	MASS	USMD_EDITION_CREQUEST	/UGI7/EAMWB_USMD_CREQ	USMD_OVP_GEN	/UGI/USMD_U1_OVP_PMBOMHDR	UMBA
/UGI/TL	MASS	USMD_EDITION_CREQUEST	/UGI7/EAMWB_USMD_CREQ	USMD_OVP_GEN	/UGI/USMD_U1_OVP_TASKLIST	UTLA
/UGI/TLEQ	MASS	USMD_EDITION_CREQUEST	/UGI7/EAMWB_USMD_CREQ	USMD_OVP_GEN	/UGI/USMD_U1_OVP_TASKLIST_EQ	ETLA
/UGI/TLFL	MASS	USMD_EDITION_CREQUEST	/UGI7/EAMWB_USMD_CREQ	USMD_OVP_GEN	/UGI/USMD_U1_OVP_TASKLIST_FL	FTLA
DRF_0038	MASS	USMD_EDITION_CREQUEST	/UGI7/EAMWB_USMD_CREQ	USMD_OVP_GEN	/UGI/USMD_U1_OVP_OBJNETWRK	UONA
DRF_0039	MASS	USMD_EDITION_CREQUEST	/UGI7/EAMWB_USMD_CREQ	USMD_OVP_GEN	/UGI/USMD_U1_OVP_OBJLINK	UOLA

4.2.2. Link Logical Actions with Business Activity: Standard Definition

Refer UGI EAM 9.1 Configuration Guide.

4.3. Verify UI Modeling (Optional)

UI configuration activities are relevant only if you want to change the UI, or if the U1 data model has been enhanced.

In this customizing activity, you can specify if and where the system hides the entity types for the data model U1.

Verify the pre-delivered field properties for the data model U1 in Customizing under ► General Settings ► UI Modeling ► Define Field Properties for UI.

The Web Dynpro application and the application configuration in the PFCG role combine with settings made in Customizing to determine the UI displayed.

You must verify the UI modeling for the data model U1 and the following Web Dynpro applications and related configurations:

Application	Application Configuration	UI Configuration
/UGI7/EAMWB/APP	/UGI7/EAMWB/APP	/UGI7/EAMWB_OVP_COMP

4.4. Set up of Data Replication

4.4.1. Customizing for Data Replication Framework (DRF- AIW Specific)

Refer EAM 9.1 Configuration Guide.

The following additional setting on sequencing is required to support Hierarchy replication for AIW:

1. Enter transaction DRFIMG.
2. Navigate to ► Data Replication ► Define Custom Settings for Data Replication ► Define Replication Models.
3. Select Replication model and click on Assign Outbound Implementation.
4. Update the Sequence for respective outbound Implementation as per the following table.

SI No.	Outbound Implementation	Sequence
1	/UGI/WRKCN	10
2	/UGI/MBOM	11
3	/UGI/I_FL	12
4	/UGI/I_EM	13
5	/UGI/I_MSP	14
6	/UGI/I_TL	15
7	/UGI/I_TLF	16
8	/UGI/I_TLE	17
9	/UGI/I_MP	18
10	/UGI/I_ON	19

SI No.	Outbound Implementation	Sequence
11	/UGI/I_OL	20

4.5. Set Up Search

Refer UGI EAM 9.1 Configuration Guide.

4.5.1. Create the Search View

Refer UGI EAM 9.1 Configuration Guide.

4.6. Verify Data Quality, Search Settings and Duplicate Check

Refer UGI EAM 9.1 Configuration Guide.

4.6.1. Configuration of the duplicate check for HANA search

Refer UGI EAM 9.1 Configuration Guide.

4.7. Verify Remaining Process Modeling Settings

Refer UGI EAM 9.1 Configuration Guide.

4.7.1. Mixed Multi-Object Change Request (MOCR)

To proceed further, verify that the business activity (UAIW) is configured in your system and that they are assigned to the default data model U1.

4.7.1.1. UAIW Asset Information Workbench

For more information, see Customizing for Master Data Governance under **General Settings** > **Process Modeling** > **Business Activities** > **Create Business Activity**.

Create new Change Request types for data model U1, or validate after import using business configuration sets (BC-Sets).

For more information, see Customizing for Master Data Governance under **General Settings** > **Process Modeling** > **Change Requests** > **Create Change Request Type**.

The following table displays the proposed change request types for data model U1. Only the relevant columns are included.

Change Request Type	Data Model	Description	Single Object	Main Entity Type	Workflow
AIWEAM0P	U1	Asset Information Workbench Parallel	No	<leave empty>	WS80000007
AIWEAM0S	U1	Asset Information Workbench Serial	No	<leave empty>	WS80000010

The MOCR is a special workflow process in AIW wherein more than one 'Type 1' entity of different technical object is encompassed within same change request. Here, each technical object (grouped

under same type) is routed to different approver group. This is possible using Business Rule Framework (BRF+) configurations.

The following settings should exist in the Entity Types, subfolder of the Change Request types:

Entity Type	Scenario	Configuration ID	Optional	Message Output
DRADEQUI	<leave empty>	<leave empty>	No	Standard
DRADFLOC	<leave empty>	<leave empty>	No	Standard
DRADMBOM	<leave empty>	<leave empty>	No	Standard
DRADMSPT	<leave empty>	<leave empty>	No	Standard
DRADOL	<leave empty>	<leave empty>	No	Standard
DRADTLEQ	<leave empty>	<leave empty>	No	Standard
DRADTLFL	<leave empty>	<leave empty>	No	Standard
DRADTLGN	<leave empty>	<leave empty>	No	Standard
EQUI	<leave empty>	<leave empty>	No	Standard
FUNCLOC	<leave empty>	<leave empty>	No	Standard
MPLAN	<leave empty>	<leave empty>	No	Standard
MSPOINT	<leave empty>	<leave empty>	No	Standard
OBJLINK	<leave empty>	<leave empty>	No	Standard
OBJNETWRK	<leave empty>	<leave empty>	No	Standard
PMBOMHDR	<leave empty>	<leave empty>	No	Standard
TLEQHDR	<leave empty>	<leave empty>	No	Standard
TLFLHDR	<leave empty>	<leave empty>	No	Standard
TLGNHDR	<leave empty>	<leave empty>	No	Standard
WORKCNTR	<leave empty>	<leave empty>	No	Standard

To the Change Request type, add the following Business Activity:

Business Activity	Description
UAIW	Asset Information Workbench

4.8. Configuration Change Request Settings

Refer UGI EAM 9.1 Configuration Guide.

4.8.1. Configuration Variant Splitter

Refer UGI EAM 9.1 Configuration Guide.

4.9. Configure Workflow Tasks

There are two types of Change Requests with the following approval types:

- Serial Approval
- Parallel approval

4.9.1. AIW Parallel/Serial Workflow Process flow (4 step BRF+)

- Parallel workflow: You can configure parallel workflow to approve work items without specific order Workflow template 'WS80000007' is assigned to the MOCR parallel Change Request type "AIWEAM0P".
- Serial Workflow: You can configure Serial workflow to approve work item in specific pre-defined order. Workflow template 'WS80000010' is assigned to the MOCR serial Change Request Type "AIWEAM0S".

Both parallel workflow and serial workflow can be used. It is recommended that you copy the delivered Change Request types according to your own naming conventions and keep the Utopia-delivered CR types as reference.

4.9.1.1. Link Change Request type to Workflow Template

Customizing activity using transaction path MDGIMG ► General Settings ► Process Modeling ► Change Requests ► Create Change Request Type.

Workflow template 'WS80000007' is assigned to the parallel MOCR change request type and Workflow template 'WS80000010' for serial MOCR change request type as displayed in the following screen.

Type of Chg. Request	Edition Type	Data Model	Description (medium text)	Objects Re...	Single Obj...	Parallel	Main Entity Type	Workflow
AIWEAM0P		01	Asset Information Workbench Parallel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		WS80000007
AIWEAM0S		01	Asset Information Workbench Serial	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		WS80000010

4.9.1.2. Workflow Step Numbers

Customizing activity using transaction path MDGIMG ► General Settings ► Process Modeling ► Workflow ► Rule-Based Workflow ► Define Change Request Steps for Rule-Based Workflow.

For 2,3 or 4 step BRF+ controlled MOCR workflow separate CR steps need to be defined for each technical object in AIW.

The following table displays a list of workflow step numbers defined for Change Request type 'AIWEAM0P'.

You can use same set of entries defined in the following table for CR type "AIWEAM0S" also.

Type of CR	CR Step	Key	Validation	Description
AIWEAM0P	00			Processing
AIWEAM0P	20			Equipment Revision Processing
AIWEAM0P	21			Functional Location Revision Processing
AIWEAM0P	22			Measuring Points Revision Processing
AIWEAM0P	23			Work Center Revision Processing
AIWEAM0P	24			Maintenance Plan Revision Processing
AIWEAM0P	25			General Task List Revision Processing
AIWEAM0P	26			Func. Loc. Task List Revision Processing
AIWEAM0P	27			Equipment Task List Revision Processing
AIWEAM0P	28			MRO BOM Revision Processing
AIWEAM0P	40			Equipment Specialist

Type of CR	CR Step	Key	Validation	Description
AIWEAM0P	41			Functional Location Specialist
AIWEAM0P	42			Measuring Points Specialist
AIWEAM0P	43			Work Center Specialist
AIWEAM0P	44			Maintenance Plan Specialist
AIWEAM0P	45			General Task List Specialist
AIWEAM0P	46			Func. Loc. Task List Specialist
AIWEAM0P	47			Equipment Task List Specialist
AIWEAM0P	48			MRO BOM Specialist
AIWEAM0P	60			Equipment Stewart
AIWEAM0P	61			Functional Location Stewart
AIWEAM0P	62			Measuring Points Stewart
AIWEAM0P	63			Work Center Stewart
AIWEAM0P	64			Maintenance Plan Stewart
AIWEAM0P	65			General Task List Stewart
AIWEAM0P	66			Func. Loc. Task List Stewart
AIWEAM0P	67			Equipment Task List Stewart
AIWEAM0P	68			MRO BOM Stewart
AIWEAM0P	80			Final Check
AIWEAM0P	91			Activation
AIWEAM0P	92			Withdraw
AIWEAM0P	93			Validation
AIWEAM0P	95			Revision Processing
AIWEAM0P	99			Complete

4.9.1.3. Change Request Actions (MOCR Specific)

Using MOCR specific action Activate & Launch New MOCR you can activate current MOCR and using same MOCR data it will create one new CR.

Customizing activity using transaction path MDGIMG ► General Settings ► Process Modeling ► Workflow ► Define Change Request Actions.

AIW specific Custom Action 'U1' is defined to handle 'Activate & Launch New MOCR' functionality of the workflow process.

Change View "Edit Actions": Details

New Entries [Icons]

Action: U1

Edit Actions	
Description	Activate and Launch New MOCR
Pushbutton Text	Activate and Launch New MOCR
Quick Info Text	Activate and Launch New MOCR
<input type="checkbox"/> Check Required	
<input type="checkbox"/> Note Required	
<input type="checkbox"/> Reason for Rejection	

i Note

Reason for rejection should not be enabled for this step, as this step performs activating the current Change Request and launching new MOCR only. No rejection option is provided for this step.

4.9.1.4. Change Request Step Types and Assign Actions (MOCR Specific)

Customizing activity using transaction path MDGIMG ► General Settings ► Process Modeling ► Workflow ► Define Change Request Step Types and Assign Actions...

This configuration defines the buttons displayed in the UI during workflow approval process when step type 'U' is configured in BRF+.

Change View "Step Types": Details

New Entries [Icons]

Dialog Structure: Step Types ► Assign Actions

Step Type: U

Step Types	
Description	Activate and Launch New MOCR
Window Title	Activate and Launch New MOCR

Change View "Assign Actions": Overview

New Entries [Icons]

Dialog Structure: Step Types ► Assign Actions

Step Type: U

Action	Description	Sequence
09	Activate	1
10	Send for Revision	3
U1	Activate and Launch New MOCR	2

4.10. Set Up the Rule-Based Workflow

MOCR is designed to use only BRF+ controlled workflow to determine next approver, workflow step, assign CR status and execute background actions.

The standard MDG framework offers BRF+ application that can be configured for each change request type from the following menu path(MDGIMG).

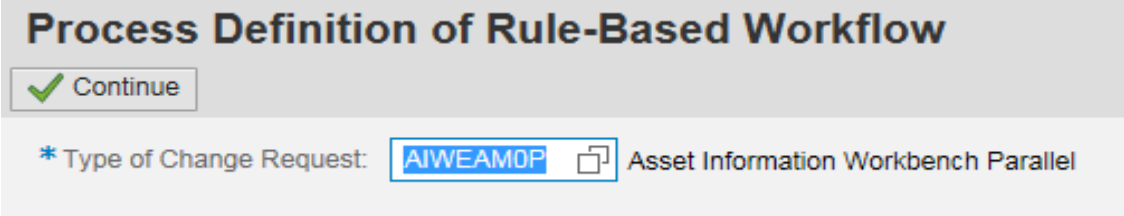
Customizing activity using transaction path MDGIMG ► General Settings ► Process Modeling ► Workflow ► Rule-Based Workflow ► Configure Rule-Based Workflow.

This will launch the Process Definition of Rule-Based Workflow in web browser. Below configuration is applicable for both Parallel and Serial workflow. We have captured the steps for parallel workflow only.

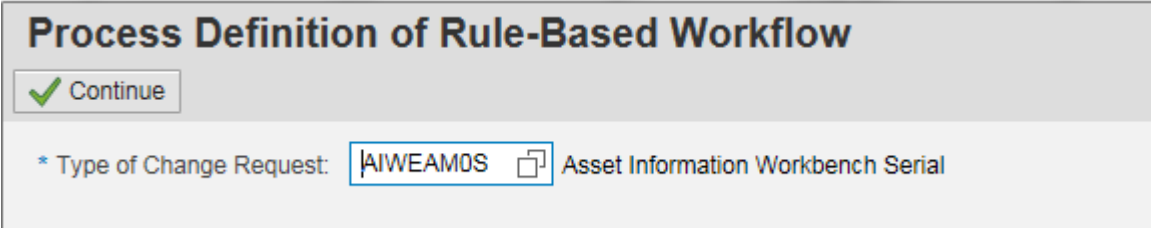
4.10.1. Configure Rule-Based Workflow

Use the following steps to configure rule-based workflow:

1. Launch the application and enter the change request type 'AIWEAM0P' and click 'Continue' button.



In case of Serial Workflow, enter the Change request type as displayed in the following screen and follow same process.



The Business Rule Framework Plus screen is displayed.

To route change request objects based on the 'Entity Type' (Type 1) within a CR, the 'Entity type' field should be included as a parameter to the BRF+ function, use the following steps:

2. Expand the Trigger Function from the Catalog Structure on the left pane and double-click on "Function to Call" Ruleset as displayed in the screen.

Function: USMD_FN_CALL_DT_RS, Call Decision Table Ruleset

General

Detail

Simulation

Mode: Event Mode

Signature Assigned Rulesets

Context

Component Name	Text	Type
CR_PRIORITY	Chng. Req. Priority	Element (Text)
CR_REASON	Chng. Req. Reason	Element (Text)
CR_REASON_REJ	CR Rejection Reason	Element (Text)
CR_TYPE	Chng. Req. Type	Element (Text)
PARENT_STEP	CR Parent Step	Element (Text)
PAR_AGT_GRP_NUM	Parallel Agt Grp No.	Element (Text)
PREVIOUS_ACTION	Previous Action	Element (Text)
PREVIOUS_STEP	CR Previous Step	Element (Text)
S_SINGLE_VALUE	Cond. Result Header	Structure
T_NON_USER_AGENT_GROUP	Non-User Agent Group	Table

- Click on the "Edit" button on the toolbar.
- Click on "Add New Data Object" button.
- Choose the option "Add New Data Object" from drop-down list
The Create Object dialog box is displayed.
- Select "Element" from the drop-down list.
- Enter Name as "USMD_ENTITY" and select the Binding Type as "Bind to DDIC Element" from the drop-down list and click Create and Navigate to Object as displayed in the following screen:

Create Object

General data

Type: Element

* Name: USMD_ENTITY

Short Text:

Text:

Application: USMD_003N7K826NGCBUUTOV4UF1729

Element

Properties

Define Data Binding

Binding Type: No Binding

Define Element

Element Type: No Binding

Element Attributes

Length: 255

Create Create And Navigate To Object Cancel

- Enter DDIC Element "USMD_ENTITY" and click "OK".

Bind DDIC ✖

DDIC Element: 📄

Create Object ✖

▼ **General data**

Type: ▼

* Name:

Short Text:

Text:

Application:

▼ **Element**

Properties

Value Help

Define Data Binding	Element Attributes
Binding Type: <input type="text" value="Bind to DD"/> <input type="button" value="Refresh..."/>	Length: <input type="text" value="9"/>
DDIC Element: <input type="text" value="USMD_ENTIT"/> <input type="button" value="Where..."/>	Convert to U... : <input checked="" type="checkbox"/>
DDIC Descri... : <input type="text" value="Entity Type"/>	Numeric Co... :
Define Element Properties	
Element Type: <input type="text" value="Text"/>	

9. Click “Create and Navigate To Object” button.

The following screen displays the details of parameter ‘USMD_ENTITY’ and it is being part of the BRF+ function interface. This screen displays the technical details of the added parameter.

Element (Text): USMD_ENTITY, Entity type

← Back
✎ Edit
🔒 Check
💾 Save
⏸ Activate
🗑 Delete
⋮ More

General

General

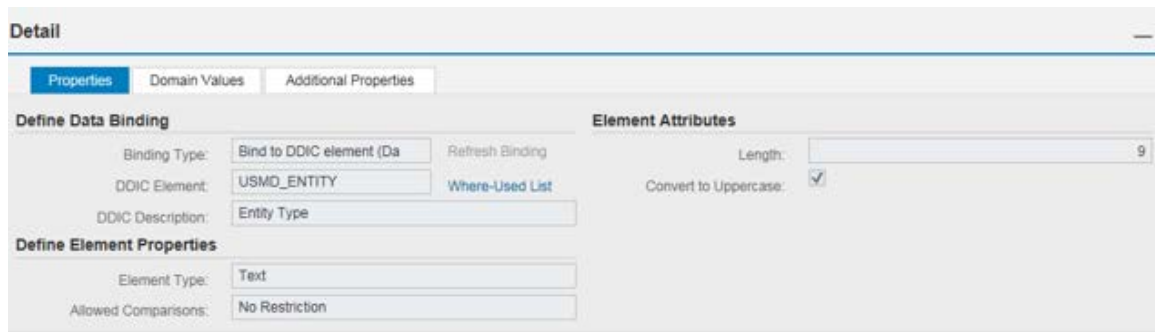
Texts

Documentation

Name: <input type="text" value="USMD_ENTITY"/>	Access Level: <input type="text" value="Application"/>
ID: <input type="text" value="000C2933CE461ED785E2B76D3DF4E10A"/>	Storage Type: <input type="text" value="Customizing"/> <input type="button" value="Transportable"/>

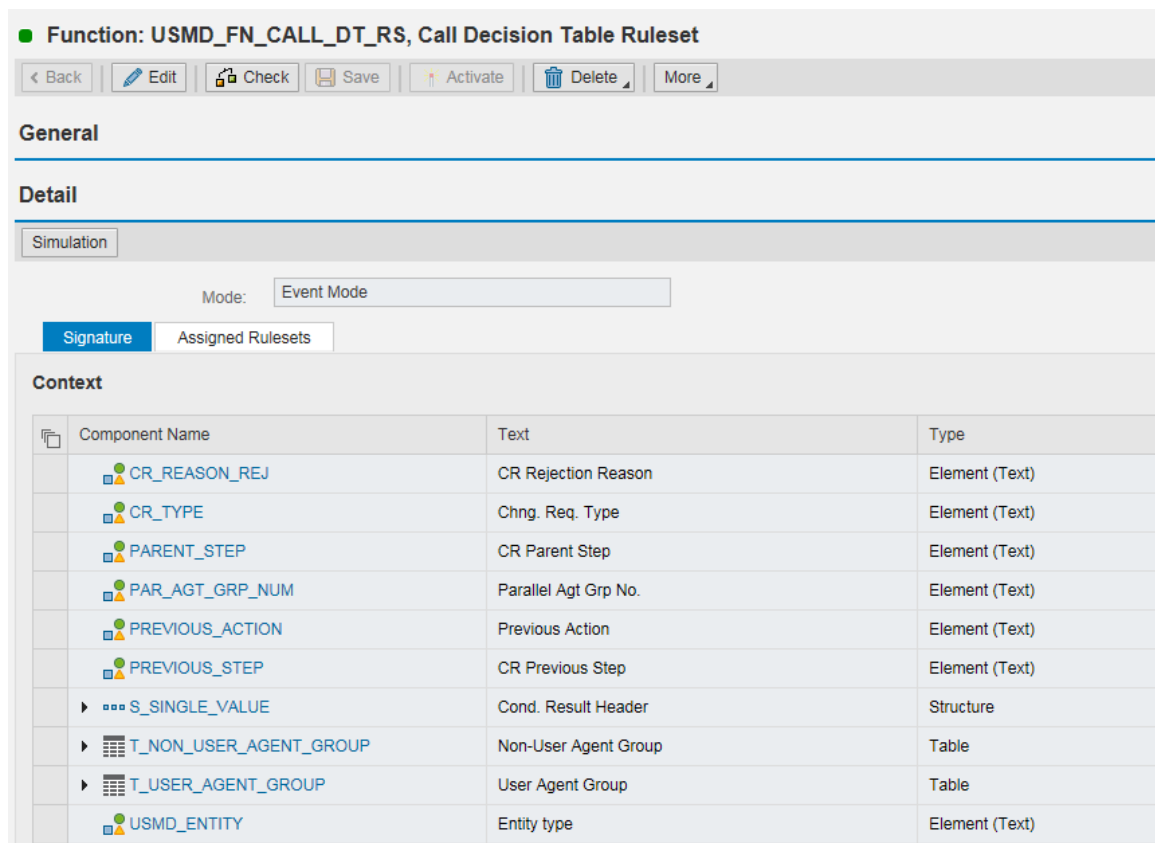
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10. Save and activate the new element.

The added parameter in the Function “Call Ruleset” screen is displayed.



The AIW workflow uses the following decision tables for Rule Based Workflow:

- Single Value Decision Table
- User Agent Decision Table
- Non-User Agent Decision Table

11. Single Value Decision Table

This is the master workflow table. This table lists the workflow steps and references the other two tables when necessary.

Single value decision table gets executed first from the BRF+ function to determine the next CR step and CR status based on the current step and action. The screenshot of BRF+ rules configured for Step 4 workflow approval process is displayed below.

Important: Before configuring the single value decision table, the field 'USMD_ENTITY' defined in previous step is included as one of the mandatory decision parameter.

Use the following steps to include the field 'USMD_ENTITY' as a mandatory decision parameter:

- a. Expand Decision tables, and double-click on Single Value Decision table.
- b. Switch to Edit mode
- c. Click "Table Settings" button from the Table Contents.

The Table Settings dialog box is displayed.

- d. Add the USMD_ENTITY parameter "Entity Type" to the Condition Columns via "insert column" "From context data objects" and move it to the first row within the list of columns.
- e. Save and activate those settings.

Table Settings

Result Data Object: **Cond. Result Header**

Table Check Settings

Overlap Check Settings: **Application Default**

Completeness Check Settings: **Application Default**

List of Columns

Condition Columns

Column Name	Text	Optional for Processing	Mandatory Input	Column Accessibility
From Context Data Objects..				
From Expression..				
PREVIOUS_STEP	CR Previous Step	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Full Access (Cha...)
PREVIOUS_AC...	Previous Action	<input type="checkbox"/>	<input type="checkbox"/>	Full Access (Cha...)
CR_PRIORITY	Chng. Req. Priority	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Full Access (Cha...)
CR_REASON	Chng. Req. Reason	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Full Access (Cha...)
CR_REASON_REJ	CR Rejection Reason	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Full Access (Cha...)
PARENT_STEP	CR Parent Step	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Full Access (Cha...)
PAR_AGT_GRP...	Parallel Agt Grp No.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Full Access (Cha...)

Result Columns

Column Name	Text	Action Column	Mandatory Input	Column Accessibility
COND_ALIAS	Condition Alias	<input type="checkbox"/>	<input type="checkbox"/>	Full Access (Cha...)
NEW_STEP	New Chng. Req. Step	<input type="checkbox"/>	<input type="checkbox"/>	Full Access (Cha...)
NEW_CR_STATUS	New CR Status	<input type="checkbox"/>	<input type="checkbox"/>	Full Access (Cha...)
EXP_COMPLET...	Hours to Completion	<input type="checkbox"/>	<input type="checkbox"/>	Full Access (Cha...)
MERGE_TYPE	Merge Type	<input type="checkbox"/>	<input type="checkbox"/>	Full Access (Cha...)
MERGE_PARAM	Merge Parameter	<input type="checkbox"/>	<input type="checkbox"/>	Full Access (Cha...)
DYNAMIC_AGT...	Dyn Agt Sel Service	<input type="checkbox"/>	<input type="checkbox"/>	Full Access (Cha...)

OK Cancel

Context Query



Hide Search Fields

Search Criteria

Element Type	is equal to	Any	+
Name	is equal to	*	+ -
Text	is equal to	*	+ -

Maximum Number of Results:

Result list: 27 objects found

Previous		Next		Show All Objects	Where Used
Object	Status	Type	Application		
Hours to Completion	●	Number	RBWF Main Appl.		
Merge Parameter	●	Text	RBWF Main Appl.		
Merge Type	●	Text	RBWF Main Appl.		
New CR Status	●	Text	RBWF Main Appl.		
New Chng. Req. Step	●	Text	RBWF Main Appl.		
Entity Type	●	Text	RBWF_APP_AIWEAM0P		
▼ Non-User Agent Group	●	Structure	RBWF Main Appl.		
Agent Group	●	Text	RBWF Main Appl.		
Process Pattern	●	Text	RBWF Main Appl.		
Service Name	●	Text	RBWF Main Appl.		

Table Settings

Result Data Object

- Settings:
- Return all matches found
 - Return initial value if no match is found
 - Return Exception for partial match

Result Data Object: **Cond. Result Header**

Table Check Settings

Overlap Check Settings: **Application Default**

Completeness Check Settings: **Application Default**

List of Columns

Condition Columns

Column Name	Text	Optional for Processing	Mandatory Input	Column Accessibility
USMD_ENTITY	Entity Type	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Full Access (Cha...)
PREVIOUS_STEP	CR Previous Step	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Full Access (Cha...)
PREVIOUS_AC...	Previous Action	<input type="checkbox"/>	<input type="checkbox"/>	Full Access (Cha...)
CR_PRIORITY	Chng. Req. Priority	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Full Access (Cha...)
CR_REASON	Chng. Req. Reason	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Full Access (Cha...)
CR_REASON_REJ	CR Rejection Reason	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Full Access (Cha...)
PARENT_STEP	CR Parent Step	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Full Access (Cha...)

The Table Contents are displayed.

USMD_ENTITY	CR Previous Step	Previous Action	Chng. Req. Prio...	Chng. Req. Rea...
=EQUI (EQUI - Equipment)	=00 (Processing)			
=FUNCLOC (FLOC - Functional Location)	=00 (Processing)			
=MSPOINT (MSPT - Measuring Point)	=00 (Processing)			
=WORKCNTR (WC - Work Center)	=00 (Processing)			
=MPLAN (MPMI - Maintenance Plan)	=00 (Processing)			
=TLGNHDR (General Task List)	=00 (Processing)			
=TLFLHDR (Functional Location Task List)	=00 (Processing)			
=TLEQHDR (Equipment Task List)	=00 (Processing)			
=PMBOMHDR (MBOM - Bill of Material)	=00 (Processing)			
=OBJLINK (OBJL - Object Link)	=00 (Processing)			
=OBJNETWRK (OBJN - Object Network)	=00 (Processing)			
=EQUI (EQUI - Equipment)	=40 (Equipment Specialist)	=03 (Approve)		
=EQUI (EQUI - Equipment)	=40 (Equipment Specialist)	=04 (Reject)		
=FUNCLOC (FLOC - Functional Location)	=41 (Functional Location Specialist)	=03 (Approve)		
=FUNCLOC (FLOC - Functional Location)	=41 (Functional Location Specialist)	=04 (Reject)		



DT_SINGLE_VAL_AI
WEAMOP.xlsx



DT_SINGLE_VAL_AI
WEAMOS.xlsx

i Note

Download the attached Excel file from the link [AIW Help Portal](#) on Utopia’s website.

12. User Agent Decision Table

This decision table contains a list of user assignments to workflow tasks.

The BRF+ application feeds the results of single value decision table to user agent table. If the next change request step is dialog (user action required), then the next approver is determined based on the value of condition alias in single value decision table. The dialog user could be a SAP user/Position/Role etc.

The following screen displays the user agent decision table maintained for 4 step BRF+ WF.

Table Contents				
Find:	Next	Previous	Table Settings	
Condition Alias	User Agt Grp No.	Step Type	User Agent Type	User Agent Value
=3	001	4 (Revise Change Request)	SU (Special User (Initiator/Last-St	INIT
=40	001	2 (Approve Change Request)	AG (Role)	/UGI7/AIW_SPEC_EQUI
=41	001	2 (Approve Change Request)	AG (Role)	/UGI7/AIW_SPEC_FUNCLOC
=42	001	2 (Approve Change Request)	AG (Role)	/UGI7/AIW_SPEC_MSPOINT
=43	001	2 (Approve Change Request)	AG (Role)	/UGI7/AIW_SPEC_WORKCNR
=44	001	2 (Approve Change Request)	AG (Role)	/UGI7/AIW_SPEC_MPLAN
=45	001	2 (Approve Change Request)	AG (Role)	/UGI7/AIW_SPEC_TLGNHDR
=46	001	2 (Approve Change Request)	AG (Role)	/UGI7/AIW_SPEC_TLFLHDR
=47	001	2 (Approve Change Request)	AG (Role)	/UGI7/AIW_SPEC_TLEQHDR
=48	001	2 (Approve Change Request)	AG (Role)	/UGI7/AIW_SPEC_PMBOMHDR
=49	001	2 (Approve Change Request)	AG (Role)	/UGI7/AIW_SPEC_OBJLINK
=50	001	2 (Approve Change Request)	AG (Role)	/UGI7/AIW_SPEC_OBJNETWRK
=11	001	U (Activate & Launch New MOCR	AG (Role)	/UGI7/AIW_STEW



DT_USER_AGT_GRP_
AIWEAMOP.xlsx



DT_USER_AGT_GRP_
AIWEAMOS.xlsx

i Note

Download the attached Excel file from the link [AIW Help Portal](#) on Utopia’s website.

13. Non-User Agent Decision Table

This decision table contains a list of system tasks.

The results of Single Value Decision Table are passed to the Non-User Agent Decision Table to determine the background step details of the next workflow step.

The following screen displays the decision table set up for change request type ‘AIWEAM0P’.

Table Contents			
Find:	Next	Previous	Table Settings
Condition Alias	Agent Group	Process Pattern	Service Name
=2	001	06 (Activation (Bypass Snapshot))	
=6	001	99 (Complete (Sub-)Workflow)	
=8	001	08 (Roll Back Change Request)	

DT_NON_USER_AGT
_GRP_AIWEAMOP.xlsDT_NON_USER_AGT
_GRP_AIWEAMOS.xls

i Note

Download the attached Excel file from the link [AIW Help Portal](#) on Utopia's website.

4.11. Choose where you want to run SAP MDG

You can run SAP Master Data Governance in either of the following environments:

- SAP NetWeaver Portal
- SAP NetWeaver Business Client

4.11.1. SAP NetWeaver Portal

Refer UGI EAM 9.1 Configuration Guide.

4.11.2. SAP NetWeaver Business Client

If you are running SAP Master Data Governance on the SAP NetWeaver Business Client (and not on the SAP NetWeaver Portal), you need to create, define, and configure the roles for the Business Client in the SAP ERP system. The role /UGI7/AIW_REQ needs to be created using the transaction code PFCG. This role contains all authorizations needed to create and follow up change requests for AIW.

4.12. Configure Process Quality Metrics (Optional)

For the priorities, reasons, or rejection reasons for change requests, there are example values available via BC set activation.

To start, choose Activate and maintain the default settings.

The codes can be used later for change request analytics (process quality analysis). They also can be used to influence the workflow-driven processes. For example, depending on the priority of a change request, you can mark it for special processing.

To update any of the Process Quality Metrics (PQM), perform the following activity in Customizing for Master Data Governance under ► General Settings ► Process Modeling ► Change Requests ► Define Priorities/Reasons/Rejection Reasons for Change Requests.

4.12.1. Change Request Priorities

Priority	Description
1	High Priority
2	Medium Priority
3	Low Priority

4.12.2. Change Request Reasons

Type of Change Request	Reason	Description
AIWEAM0P	01	Process Multiple EAM Masters
AIWEAM0S	01	Process Multiple EAM Masters

4.12.3. Change Request Rejections

Type of Change Request	Reason for Rejection	Description
AIWEAM0P	01	Incomplete information
AIWEAM0P	02	Does not suit business requirements
AIWEAM0P	03	No proper Justification

Type of Change Request	Reason for Rejection	Description
AIWEAM0S	01	Incomplete information
AIWEAM0S	02	Does not suit business requirements
AIWEAM0S	03	No proper Justification

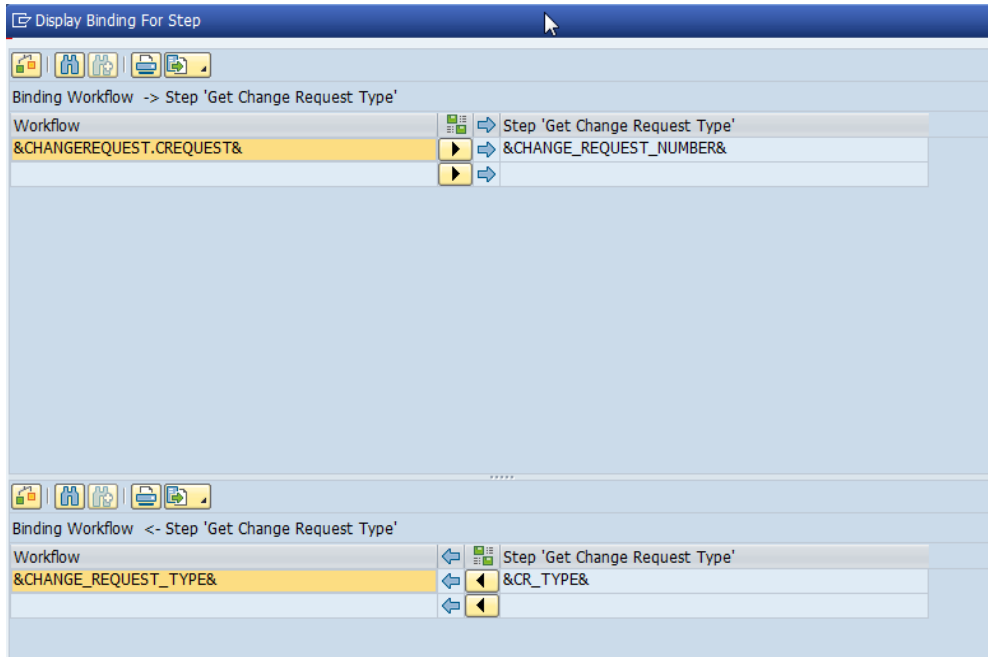
4.13. Workflow Templates for SAP Asset Information Workbench by Utopia

AIW is delivered with two possible workflow scenarios (Parallel and Serial). This section describes about the parallel workflow approval process of AIW. Two custom workflow templates are created for this scenario and the following section provides detailed description.

4.13.1. WS80000007 – Multi-object Change Request WF

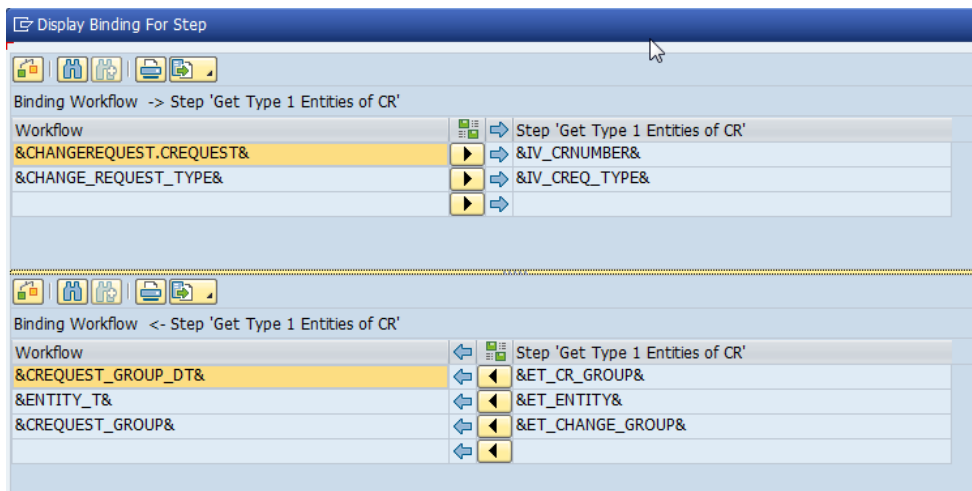
This workflow template consists of the following steps:

1. Start workflow
The MOCR workflow is started when a user submits a MOCR.
2. Get Change Request Type
This background tasks determines the Change Request type based on the Change Request number by executing the class method 'GET_CR_TYPE' of class 'CL_USMD_WF_SSW'. The following screen is the binding between task and workflow container. Standard Task 'TS60807944' is used at this workflow step'000334'.



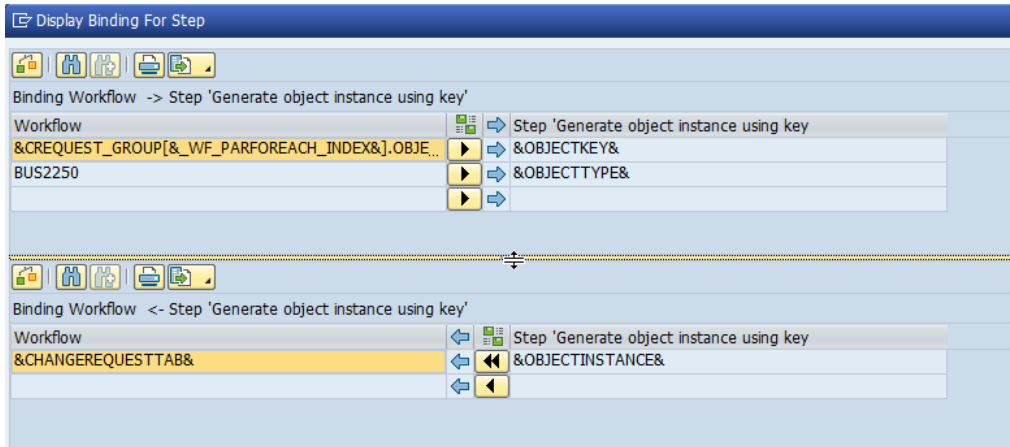
3. Get TYPE 1 Entities

This background step retrieves all type 1 entities in MOCR into workflow container. This is done by executing the method 'GET_CREQUEST_ENTITIES' of class '/UGI7/USMD_WF_SSW'. Custom task 'TS80000008' (step 000235) is created for this purpose. The following screen displays the binding between task and workflow container.



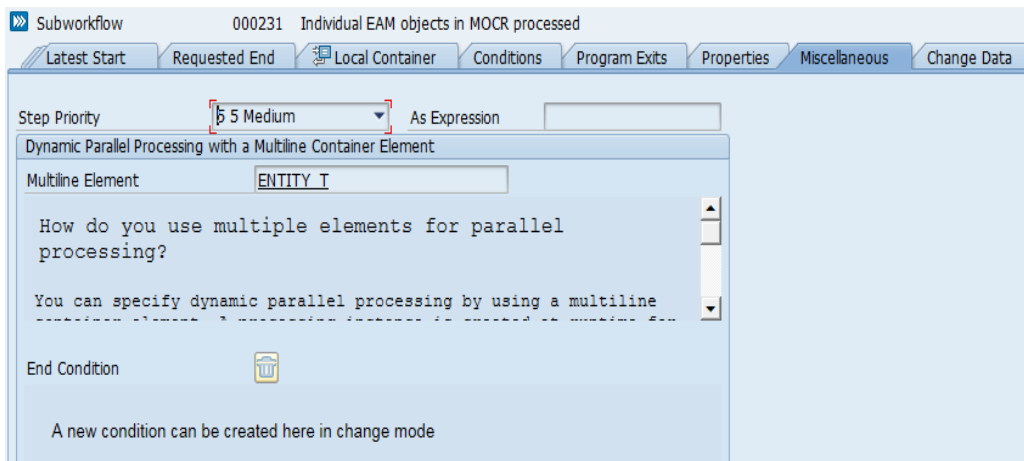
4. Generate object instance using key

This background step creates one instance of business object 'BUS2250' for each type 1 entity group determined in step (b) above and updates the workflow container. This is achieved by creating parallel instance for each entry in workflow container 'CREQUEST_GROUP' and calling the method 'GENERICINSTANTIATE' of business object 'SYSTEM' of the standard task 'TS01200205' (step 000240). The following screen is the binding between task and workflow container.

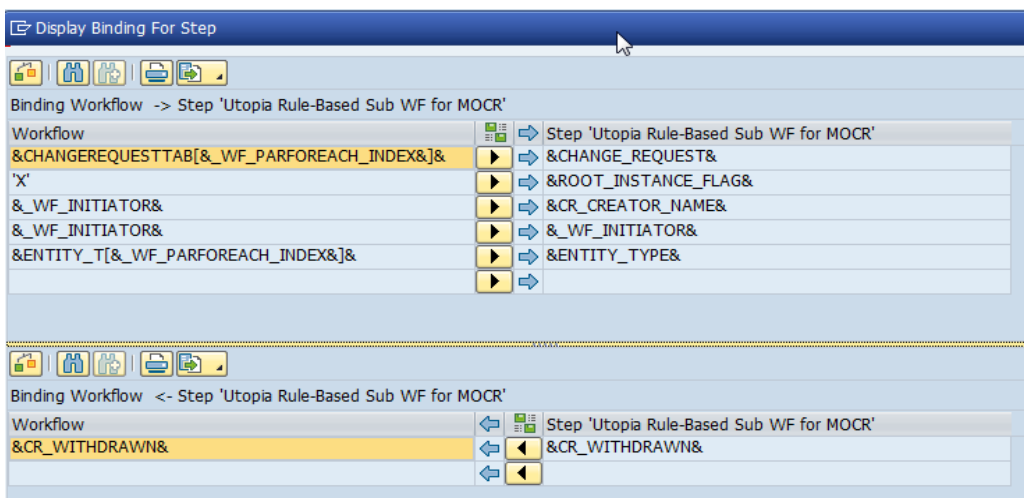


5. MDG BRF+ (Parallel processing of Technical objects in MOCR)

This step calls the workflow 80000008(step 000231) as sub-workflow for each type 1 entity type determined in steps (c) in parallel by processing each element in container 'ENTITY_T' Refer to the following screen.



The following screen displays the binding between workflow template '80000007' & '80000008'.



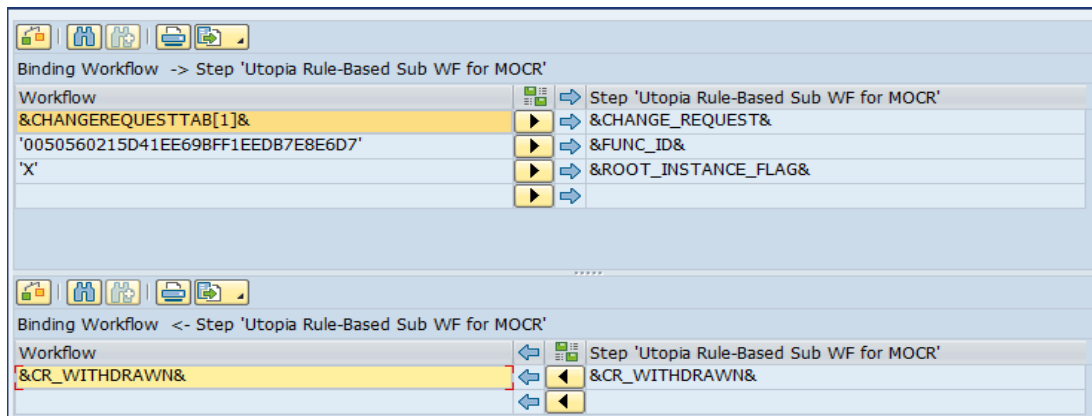
Index [&WF_PARFOREACH_INDEX&] is used to access each element in container 'ENTITY_T'.

The main workflow 80000007 waits until all instance of sub-workflow is complete.

6. Activation of MOCR (Step 000338)

This step gets executed only when step (e) above is complete & 'CR_WITHDRAWN' flag is not set in the workflow container. This step launch template 80000008 as sub-workflow to perform the final gate keeper activation step. Once template '80000008' is complete the parent workflow '80000007' gets complete.

The following screen displays the binding between workflow template '80000007' & '80000008'. The BRF+ application ID is passed in the task container as a binding so the workflow template '80000008' knows which template to process when executed.



4.13.2. WS80000008 - Utopia Rule-Based Sub WF for MOCR

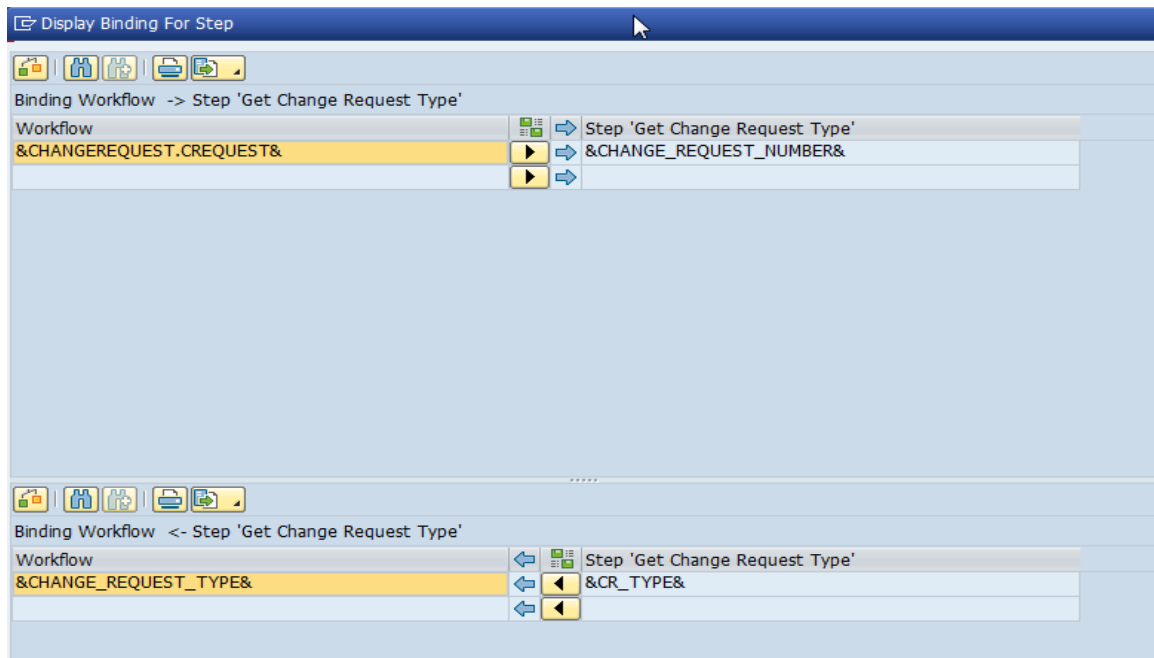
Use the following steps involved in this workflow template:

1. Start workflow.

The Utopia rule-based workflow is started as sub-workflow from template WS80000007 for each 'Type 1' entity group in parallel.

2. Get Change Request Type.

This background task determines the change request type based on the change request number by executing the class method 'GET_CR_TYPE' of class 'CL_USMD_WF_SSW'. In the following screen, the binding between task and workflow container is displayed. Standard Task 'TS60807944' is used at this workflow step '000004'.



Parameter	Type	Associated Type	Description
IV_CR_NUMBER	Importing	USMD_CREQUEST	Change Request
RV_CR_TYPE	Returning	USMD_CREQUEST_TYPE	Type of Change Request

3. Check assignment of processor to workflow.

The system checks whether a processor is assigned to the workflow (with or without a user name).

If a processor is assigned, the system provides the values, users or methods that are needed for processing the task in the next workflow step.

If a processor is not assigned, the system launches BRFplus. When the workflow container 'FUNC_ID' is not assigned then the workflow template executes the task 'TS80000011'.

TS80000011((000029- Path and Processor Finder)

This task calls the method 'FIND_PATH_PROCESSOR' of class '/UGI7/USMD_WF_SSW'.

The following screen displays the binding between task and workflow container:

Binding Workflow -> Step 'Path and Processor Finder'	
Workflow	Step 'Path and Processor Finder'
&GENERIC_CONTEXT&	&CT_CONTEXT_TAB&
&MESSAGE_TAB&	&CT_MESSAGE&
&STEP_ACTION.ACTION&	&IV_ACTION&
&WF_INITIATOR&	&IV_CR_CREATOR&
&CR_PRIORITY&	&IV_CR_PRIORITY&
&CR_REASON&	&IV_CR_REASON&
&CR_REASON_REJ&	&IV_CR_REASON_REJ&
&CHANGE_REQUEST_TYPE&	&IV_CR_TYPE&
&ENTITY_TYPE&	&IV_ENTITY_TYPE&
&PARENT_STEP&	&IV_PARENT_STEP&
&PAR_AGT_GRP_NUM&	&IV_PAR_AGT_GRP_NUM&
&STEP_ACTION.STEP&	&IV_STEP&
&CHANGE_REQUEST.CREQUEST&	&IV_CR_NUMBER&

Binding Workflow <- Step 'Path and Processor Finder'	
Workflow	Step 'Path and Processor Finder'
&GENERIC_CONTEXT&	&CT_CONTEXT_TAB&
&MESSAGE_TAB&	&CT_MESSAGE&
&STEP_RESULT_MERGE_HANDLER&	&ES_STEP_RSLT_MERGE_HANDLER&
&NON_USER_AGENT&	&ET_NON_USER_AGENT&
&USER_AGENT&	&ET_USER_AGENT&
&CR_STATUS&	&EV_CR_STATUS&
&EXP_COMP_HOURS&	&EV_EXP_COMP_HOURS&
&STEP_ACTION.STEP&	&EV_NEXT_STEP&

Parameter	Type	Associated Type	Description
IV_CR_NUMBER	Importing	USMD_CREQUEST	Change Request
IV_CR_TYPE	Importing	USMD_CREQUEST_TYPE	Type of Change Request
IV_STEP	Importing	USMD_CREQUEST_APPSTEP	Workflow Step Number
IV_ACTION	Importing	USMD_CREQUEST_ACTION	Action on User Interface of Change Request
IV_PARENT_STEP	Importing	USMD_CREQUEST_APPSTEP	Boolean Variable (X=true, -=false, space=unknown)
IV_PAR_AGT_GRP_NUM	Importing	USMD_AGENT_GROUP	
IV_CR_PRIORITY	Importing	USMD_PRIORITY	Priority
IV_CR_REASON	Importing	USMD_REASON	Reason
IV_CR_REASON_REJ	Importing	USMD_REASON_REJ	Reason for Rejection
IV_CR_CREATOR	Importing	SWP_INITIA	Initiator of workflow instance
IV_ENTITY_TYPE	Importing	USMD_ENTITY	Entity Type
ET_USER_AGENT	Exporting	USMD_T_USER_AGENT_GROUP	
ET_NON_USER_AGENT	Exporting	USMD_T_NON_USER_AGENT_G ROUP	
ES_STEP_RSLT_MERGE_HANDLER	Exporting	USMD_S_STEP_RSLT_MERGE_ HANDLER	
EV_CR_STATUS	Exporting	USMD_CREQUEST_STATUS	Status of Change Request

Parameter	Type	Associated Type	Description
EV_NEXT_STEP	Exporting	USMD_CREQUEST_APPSTEP	Workflow Step Number
EV_EXP_COMP_HOURS	Exporting	INT2	2-byte integer (signed)
CT_MESSAGE	Changing	USMD_T_MESSAGE	Messages
CT_CONTEXT_TAB	Changing	USMD_T_GENERIC_CONTEXT	Generic Context Table

The system uses the values defined in the BRFplus decision tables to determine the next workflow step and to assign a processor, with or without a user name. The value and the action of the next step depend on what is defined in the decision table for the previous step and what the previous action was. If the current workflow instance is the main workflow, the system also refreshes the status of the change request.

- Determine whether single processing or parallel processing of change request is required.
The system determines the number of users or user groups to which the change request needs to be sent. For example, it might be necessary that the change request be sent for approval to users in the purchasing and accounting departments.

Single Processing

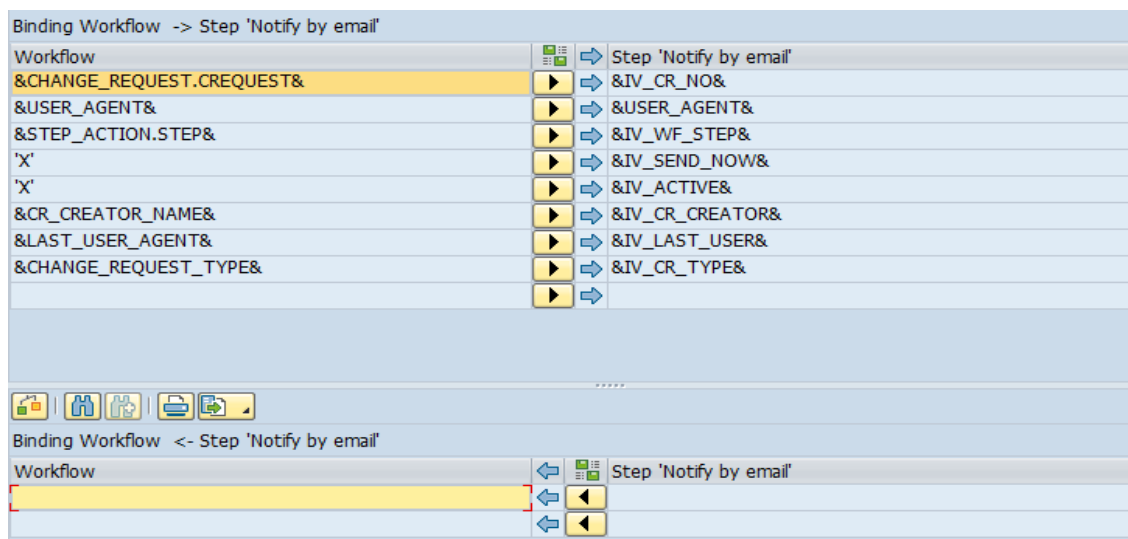
If single processing is necessary, the system, for example, sends the change request to a user and retrieves the relevant processing templates defined in the decision table for the next workflow step. For example, when the change request is created, the next step might determine that the change request be sent to the master data steward for approval.

The following task(s) exists within single processing:

TS80000006: (Step 0414-Notify by Email)

This task notifies the approver & other recipients based on the entries maintained in table view 'UGI7/V_EM_CONF' for the current workflow step type (determined from BRF+ application) by email. This is done by calling the method 'NOTIFY_APPROVERS' of class 'UGI7/USMD_WF_SSW'.

The following screen displays the binding between workflow and task container.



Parallel Processing

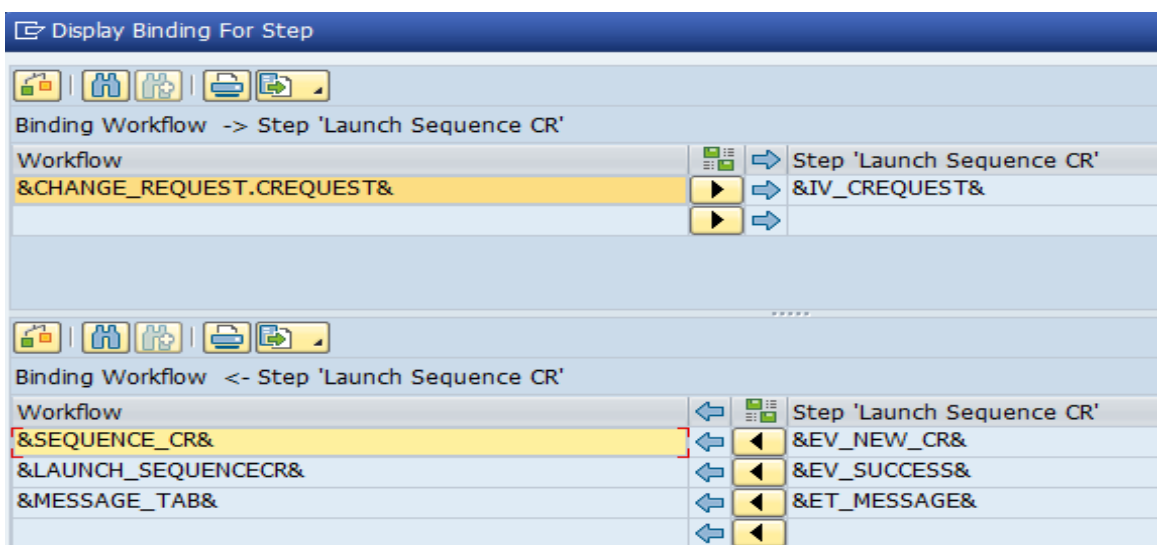
Parallel processing of objects within a group of technical objects is not applicable for AIW MOCR workflow. Yet this section exists in workflow template since the template '80000008' is a copy of standard workflow 'WS60800086'.

1. Activation of MOCR

Standard task 'TS60808002' gets executed when the final gate keeper opts 'Activate CR' or 'Activate & Launch New MOCR'. This task commits the MOCR data from staging area to active ECC database (hub/co-deploy model). At this point the MOCR data is ready for operational use.

2. Launch Sequence CR

This step executes the method 'LAUNCH_SEQUENCE_CR' of class '/UGI7/USMD_WF_SSW' in the task 'TS80000027(Step 405 Launch Sequence CR'. This method copies all 'Type 1' entities in the current MOCR to a new MOCR in draft mode. Shown below is the binding between Workflow and task container



3. Check workflow completion

The system checks whether the indicator for completing a workflow has been set. If this is the case, the system completes the workflow. Otherwise, the system returns to step 3 and starts again.

Parameter	Type	Associated Type	Description
IV_CREQUEST	Importing	USMD_CREQUEST	Change Request
EV_SUCCESS	Exporting	BOOLE_D	Flag set when CR launched
EV_NEW_CR	Exporting	USMD_CREQUEST	Change Request
ET_MESSAGE	Exporting	USMD_T_MESSAGE	Messages

4.14. Email or Notifications Configuration

This section describes about Emails or Notifications sent out to actual recipients of the work item and additional recipient(s) in AIW.

The Email functionality is designed to support any Change Request Type and Workflow Step Types defined in MDGIMG configuration. The emails sent out are not actual workitem(s) but notifications for

designated processor of the work item and any additional recipients to be notified at a BRF+ workflow step.

4.14.1. Disclaimer

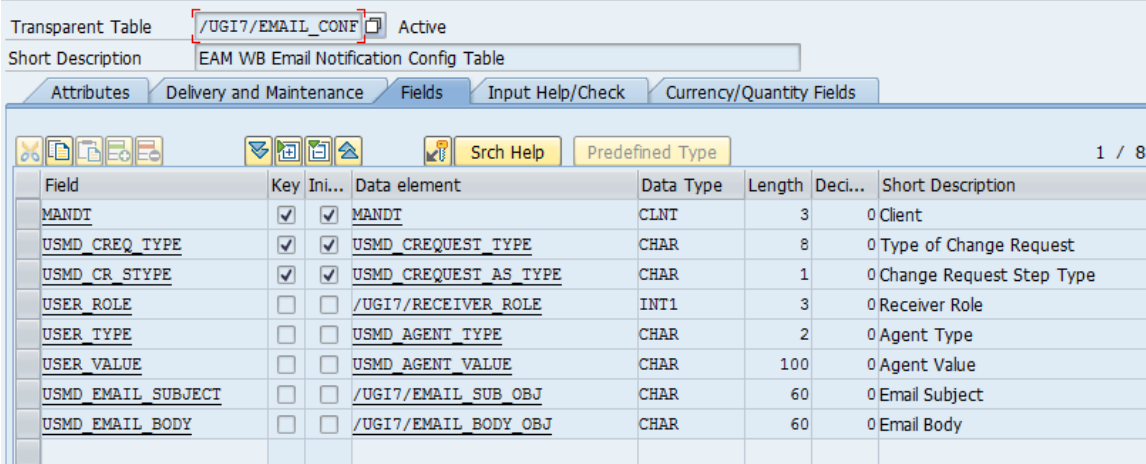
The Email functionality is designed to work only for AIW BRF+ controlled workflow(s). This will not replace the Extended notifications defined in SAP.

4.14.2. Email Configuration

The following section describes the configuration that drives the email functionality.

4.14.2.1. Transparent Table

Table '/UGI7/EMAIL_CONF' stores the configuration detail of who should be notified, at what workflow step & the corresponding email template. The following screen displays the structure of table.



Field	Key	Ini...	Data element	Data Type	Length	Deci...	Short Description
MANDT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	MANDT	CLNT	3	0	Client
USMD_CREQ_TYPE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	USMD_CREQUEST_TYPE	CHAR	8	0	Type of Change Request
USMD_CR_STYPE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	USMD_CREQUEST_AS_TYPE	CHAR	1	0	Change Request Step Type
USER_ROLE	<input type="checkbox"/>	<input type="checkbox"/>	/UGI7/RECEIVER_ROLE	INT1	3	0	Receiver Role
USER_TYPE	<input type="checkbox"/>	<input type="checkbox"/>	USMD_AGENT_TYPE	CHAR	2	0	Agent Type
USER_VALUE	<input type="checkbox"/>	<input type="checkbox"/>	USMD_AGENT_VALUE	CHAR	100	0	Agent Value
USMD_EMAIL_SUBJECT	<input type="checkbox"/>	<input type="checkbox"/>	/UGI7/EMAIL_SUB_OBJ	CHAR	60	0	Email Subject
USMD_EMAIL_BODY	<input type="checkbox"/>	<input type="checkbox"/>	/UGI7/EMAIL_BODY_OBJ	CHAR	60	0	Email Body

The fields are listed in detail in the following table:

Field	Description
USMD_CREQ_TYPE	MDG Change Request Type
USMD_CR_STYPE	Workflow step type (Approve / Revise / Process)
USMD_ROLE	Could be 'Approver' or 'Notify Only'
USMD_TYPE	Recipient type - could be 'US' / 'AG' / 'S' / 'C' / 'O' / 'SU'
USMD_VALUE	Recipient value for the type maintained in 'USMD_TYPE'
USMD_EMAIL_SUBJECT	Email subject – name of the text object
USMD_EMAIL_BODY	Email body – name of the text object

4.14.2.2. Pre-delivered entries for Email Configuration

Type of Change Request	CR Step	Rec Role	Agent Type	Agent Value	Email Subject	Email Body
AIWEAM0P	20	1 Approver			/UGI7/EAM_SWN_SUBJECT_REWISE	/UGI7/EAM_SWN_BODY_PROCE_REJ
AIWEAM0P	21	1 Approver			/UGI7/EAM_SWN_SUBJECT_REWISE	/UGI7/EAM_SWN_BODY_PROCE_REJ
AIWEAM0P	22	1 Approver			/UGI7/EAM_SWN_SUBJECT_REWISE	/UGI7/EAM_SWN_BODY_PROCE_REJ
AIWEAM0P	23	1 Approver			/UGI7/EAM_SWN_SUBJECT_REWISE	/UGI7/EAM_SWN_BODY_PROCE_REJ
AIWEAM0P	24	1 Approver			/UGI7/EAM_SWN_SUBJECT_REWISE	/UGI7/EAM_SWN_BODY_PROCE_REJ
AIWEAM0P	25	1 Approver			/UGI7/EAM_SWN_SUBJECT_REWISE	/UGI7/EAM_SWN_BODY_PROCE_REJ
AIWEAM0P	26	1 Approver			/UGI7/EAM_SWN_SUBJECT_REWISE	/UGI7/EAM_SWN_BODY_PROCE_REJ
AIWEAM0P	27	1 Approver			/UGI7/EAM_SWN_SUBJECT_REWISE	/UGI7/EAM_SWN_BODY_PROCE_REJ
AIWEAM0P	28	1 Approver			/UGI7/EAM_SWN_SUBJECT_REWISE	/UGI7/EAM_SWN_BODY_PROCE_REJ
AIWEAM0P	29	1 Approver			/UGI7/EAM_SWN_SUBJECT_REWISE	/UGI7/EAM_SWN_BODY_PROCE_REJ
AIWEAM0P	30	1 Approver			/UGI7/EAM_SWN_SUBJECT_REWISE	/UGI7/EAM_SWN_BODY_PROCE_REJ
AIWEAM0P	40	1 Approver			/UGI7/EAM_SWN_SUBJECT_PROCES	/UGI7/EAM_SWN_BODY_PROCESS
AIWEAM0P	41	1 Approver			/UGI7/EAM_SWN_SUBJECT_PROCES	/UGI7/EAM_SWN_BODY_PROCESS
AIWEAM0P	42	1 Approver			/UGI7/EAM_SWN_SUBJECT_PROCES	/UGI7/EAM_SWN_BODY_PROCESS
AIWEAM0P	43	1 Approver			/UGI7/EAM_SWN_SUBJECT_PROCES	/UGI7/EAM_SWN_BODY_PROCESS
AIWEAM0P	44	1 Approver			/UGI7/EAM_SWN_SUBJECT_PROCES	/UGI7/EAM_SWN_BODY_PROCESS
AIWEAM0P	45	1 Approver			/UGI7/EAM_SWN_SUBJECT_PROCES	/UGI7/EAM_SWN_BODY_PROCESS
AIWEAM0P	46	1 Approver			/UGI7/EAM_SWN_SUBJECT_PROCES	/UGI7/EAM_SWN_BODY_PROCESS
AIWEAM0P	47	1 Approver			/UGI7/EAM_SWN_SUBJECT_PROCES	/UGI7/EAM_SWN_BODY_PROCESS

Type of Change Request	CR Step	Rec Role	Agent Type	Agent Value	Email Subject	Email Body
AIWEAM0P	48	1 Approver			/UGI7/EAM_SWN_SUBJECT_PROCES	/UGI7/EAM_SWN_BODY_PROCESS
AIWEAM0P	49	1 Approver			/UGI7/EAM_SWN_SUBJECT_PROCES	/UGI7/EAM_SWN_BODY_PROCESS
AIWEAM0P	50	1 Approver			/UGI7/EAM_SWN_SUBJECT_PROCES	/UGI7/EAM_SWN_BODY_PROCESS
AIWEAM0P	80	1 Approver			/UGI7/EAM_SWN_SUBJECT_PROCES	/UGI7/EAM_SWN_BODY_PROCESS
AIWEAM0P	91	2 Notify Only	SU Special User (Initiator/Last-Step User)	INIT	/UGI7/EAM_SWN_SUBJECT_FINISH	/UGI7/EAM_SWN_BODY_FINISH
AIWEAM0S	20	1 Approver			/UGI7/EAM_SWN_SUBJECT_REWISE	/UGI7/EAM_SWN_BODY_PROCE_REJ
AIWEAM0S	21	1 Approver			/UGI7/EAM_SWN_SUBJECT_REWISE	/UGI7/EAM_SWN_BODY_PROCE_REJ
AIWEAM0S	22	1 Approver			/UGI7/EAM_SWN_SUBJECT_REWISE	/UGI7/EAM_SWN_BODY_PROCE_REJ
AIWEAM0S	23	1 Approver			/UGI7/EAM_SWN_SUBJECT_REWISE	/UGI7/EAM_SWN_BODY_PROCE_REJ
AIWEAM0S	24	1 Approver			/UGI7/EAM_SWN_SUBJECT_REWISE	/UGI7/EAM_SWN_BODY_PROCE_REJ
AIWEAM0S	25	1 Approver			/UGI7/EAM_SWN_SUBJECT_REWISE	/UGI7/EAM_SWN_BODY_PROCE_REJ
AIWEAM0S	26	1 Approver			/UGI7/EAM_SWN_SUBJECT_REWISE	/UGI7/EAM_SWN_BODY_PROCE_REJ
AIWEAM0S	27	1 Approver			/UGI7/EAM_SWN_SUBJECT_REWISE	/UGI7/EAM_SWN_BODY_PROCE_REJ
AIWEAM0S	28	1 Approver			/UGI7/EAM_SWN_SUBJECT_REWISE	/UGI7/EAM_SWN_BODY_PROCE_REJ
AIWEAM0S	29	1 Approver			/UGI7/EAM_SWN_SUBJECT_REWISE	/UGI7/EAM_SWN_BODY_PROCE_REJ
AIWEAM0S	30	1 Approver			/UGI7/EAM_SWN_SUBJECT_REWISE	/UGI7/EAM_SWN_BODY_PROCE_REJ
AIWEAM0S	40	1 Approver			/UGI7/EAM_SWN_SUBJECT_PROCES	/UGI7/EAM_SWN_BODY_PROCESS
AIWEAM0S	41	1 Approver			/UGI7/EAM_SWN_SUBJECT_PROCES	/UGI7/EAM_SWN_BODY_PROCESS
AIWEAM0S	42	1 Approver			/UGI7/EAM_SWN_SUBJECT_PROCES	/UGI7/EAM_SWN_BODY_PROCESS
AIWEAM0S	43	1 Approver			/UGI7/EAM_SWN_SUBJECT_PROCES	/UGI7/EAM_SWN_BODY_PROCESS

Type of Change Request	CR Step	Rec Role	Agent Type	Agent Value	Email Subject	Email Body
AIWEAM0S	44	1 Approver			/UGI7/EAM_SWN_SUBJECT_PROCES	/UGI7/EAM_SWN_BODY_PROCESS
AIWEAM0S	45	1 Approver			/UGI7/EAM_SWN_SUBJECT_PROCES	/UGI7/EAM_SWN_BODY_PROCESS
AIWEAM0S	46	1 Approver			/UGI7/EAM_SWN_SUBJECT_PROCES	/UGI7/EAM_SWN_BODY_PROCESS
AIWEAM0S	47	1 Approver			/UGI7/EAM_SWN_SUBJECT_PROCES	/UGI7/EAM_SWN_BODY_PROCESS
AIWEAM0S	48	1 Approver			/UGI7/EAM_SWN_SUBJECT_PROCES	/UGI7/EAM_SWN_BODY_PROCESS
AIWEAM0S	49	1 Approver			/UGI7/EAM_SWN_SUBJECT_PROCES	/UGI7/EAM_SWN_BODY_PROCESS
AIWEAM0S	50	1 Approver			/UGI7/EAM_SWN_SUBJECT_PROCES	/UGI7/EAM_SWN_BODY_PROCESS
AIWEAM0S	80	1 Approver			/UGI7/EAM_SWN_SUBJECT_PROCES	/UGI7/EAM_SWN_BODY_PROCESS
AIWEAM0S	91	2 Notify Only	SU Special User (Initiator/Last-Step User)	INIT	/UGI7/EAM_SWN_SUBJECT_FINISH	/UGI7/EAM_SWN_BODY_FINISH

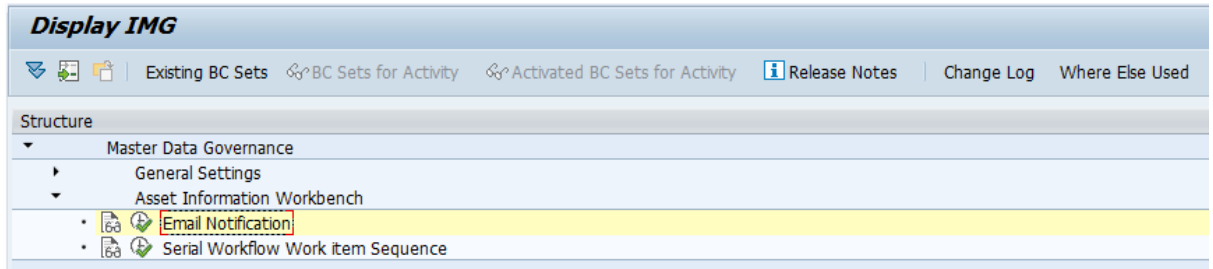
4.14.2.3. Maintenance View/IMG Node

Maintenance view '/UGI7/V_EM_CONF' is created to add new/change configuration of the emails in the table '/UGI7/EMAIL_CONF'.

This view can be accessed using the transaction code 'SM30'.

Alternatively, you can use the following IMG link.

1. Go to transaction MDGIMG ► Asset Information Workbench ► Email Notification

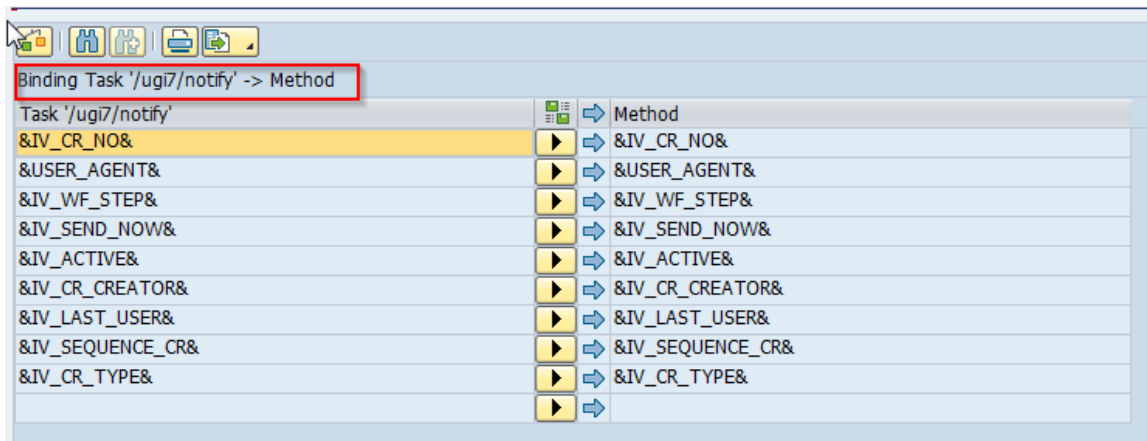


4.14.3. Technical Details

This section of the document explains in detail about the technical developments made for the email functionality in AIW.

4.14.3.1. Standard Task - TS 80000006

The task 'TS 80000006' executes the method 'NOTIFY_APPROVERS' of the class '/UGI7/USMD_WF_SSW' to send email notification during change request workflow approval process. The task passes the following parameters from workflow container to class method.



4.14.3.2. Standard Text(s)

Standard text objects are created from transaction code 'SE61' in language 'EN' for email subject and body for different workflow step types. The text objects were assigned in table '/UGI7/EMAIL_CONF' to be processed by the send email task of the workflow.

Text Object	Description
/UGI7/EAM_SWN_SUBJECT_PROCES	Subject of the email notification used in workflow step type 'Process / Approve'
/UGI7/EAM_SWN_SUBJECT_SEQCR	Subject of the email notification used in Sequence launch of CR.
/UGI7/EAM_SWN_BODY_PROCESS	Email content used in workflow step type 'Process / Approve'
/UGI7/EAM_SWN_BODY_PROCE_REJ	Email content used in workflow step type 'Revise'
/UGI7/EAM_SWN_BODY_SEQCR	Email content used in sequence launch of MOCR

4.14.3.3. Class Method to Send Email Notification

Class Method: /UGI7/USMD_WF_SSW->NOTIFY_APPROVERS

This method sends email notification to the recipients maintained in table '/UGI7/EMAIL_CONF' in 'HTML' format.

The following describes the logic of the notification process:

- Determine the email configuration maintained for the change request type and workflow step type from table '/UGI7/EMAIL_CONF'.
- Determine the SAP user id, for each recipient maintained in table (apart from user type 'US')
- Call the method 'SEND_MAIL' for the recipients determined in above step.

METHOD: SEND_MAIL

- Determine email ID of the SAP user by calling the method 'GET_EMAIL_ID' (from user profile)
- Method 'GET_VARIABLES_NOTIFICATIONS' return the contents related to Change Request & Workflow step to be embed in Email notification.
- Method 'GET_TEXT_FROM_REPOSITORY' reads the text objects associated to the current workflow step type and replaces the text symbols (place holders) with the CR content determined in above step (b).
- Once the Email subject and body is built. the program sends the email by calling the method 'SEND' of class 'CL_BCS'.

4.14.4. Dependencies

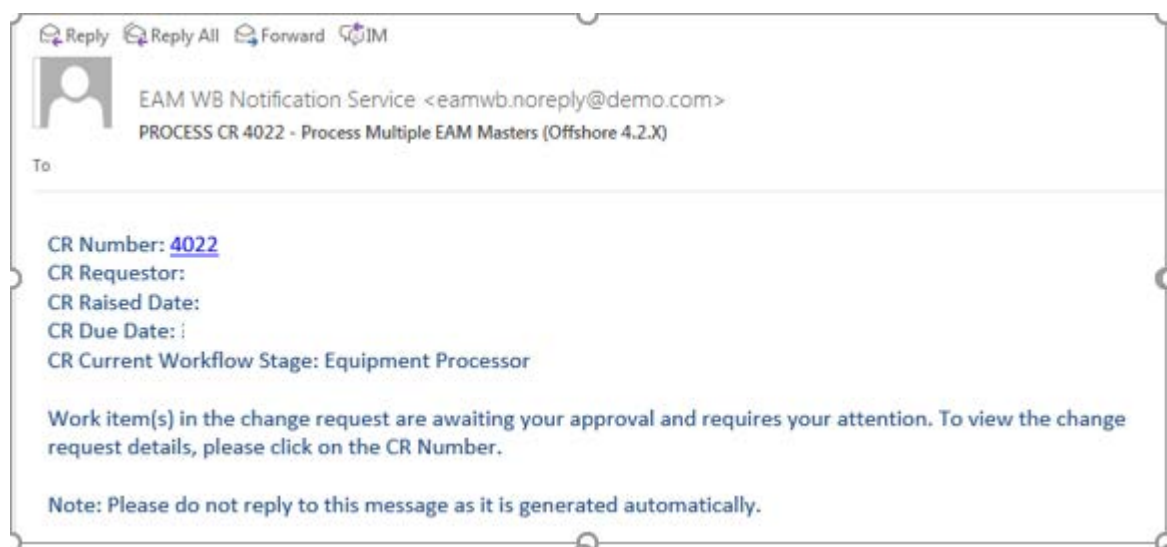
The following list of objects that should exist for the email functionality to work without issues.

- The text objects maintained in table '/UGI7/EMAIL_CONF' should be valid (i.e. created).
- Email address should be maintained in user profile of the SAP user.
- SMTP nodes should be configured in transaction code 'SCOT'.

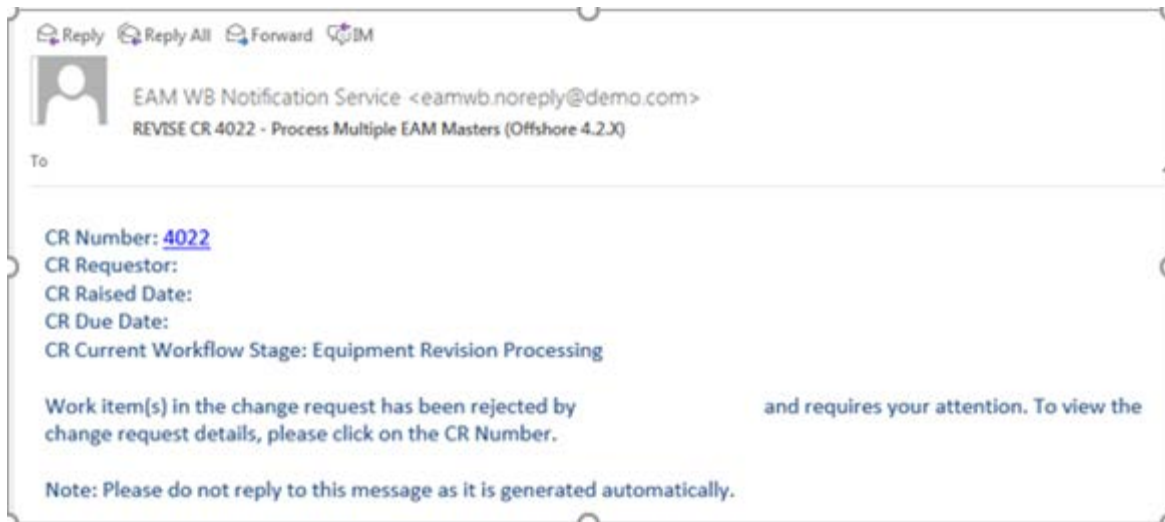
4.14.5. Sample Emails/Notifications

This section displays sample emails and notifications.

4.14.5.1. Approve or Process Change Request



4.14.5.2. Revise Change Request



4.15. System Compatibility

You can install AIW with the following configurations.

- S/4HANA 1709
- UGI EAM 9.1

4.16. Final Steps

SAP and Utopia recommend regenerating the data model again at the end of these setup steps to ensure clear code generation.

Note

Before you can run all Master Data Governance processes like Create Equipment, you need to assign the data model U1 to your user. Alternatively, the user administrator can maintain the following Personalization Parameter for your user profile: SAP Master Data Governance R_FMDM_MODEL.

If there are other data models active in your system, such as Financials (OG), Material Master (MM), or Business Partner/Customer/Supplier (BP) additional entries may appear in this list.