



Configuration Guide for SAP Asset Information Workbench (AIW) by Utopia

Release 1.0

Document History

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

| Version | Date | Description | Name |
|---------|------------|------------------|--|
| 1.0 | 15/09/2017 | Modified version | Sreenivasulu Reddy Zollu; Shaik Fayazoddin; Manjunath |

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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
- Configuration Process

2. Prerequisites/Before You Start

You have successfully installed and configured UGI EAM 730-SP01.

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 |


2.1.1. Prerequisite EAM Related Utopia OSS Notes

| Note number | Short text | Application Component |
|-------------------------|---|-----------------------|
| 2488720 | Consolidated Post SP01 UGI3 Corrections | XX-PART-UGI |
| 2495493 | Consolidated Post UGI730 SP01 Base Corrections | XX-PART-UGI |
| 2499859 | Consolidate Port SP01 Note 2 | XX-PART-UGI |
| 2518482 | Work Center Inbound process fails with Multiple Object Processing | XX-PART-UGI |
| 2518592 | Incorrect message handling for Functional Location in equipment | XX-PART-UGI |
| 2523474 | Equipment status is not updating properly within MOCR for multiple status update operations | XX-PART-UGI |

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 Configuration Guide UGI EAM 730-SP01

3.3. Adjust Profile Parameters

Refer Configuration Guide UGI EAM 730-SP01

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.

Below roles have been created for AIW.

| Role Name | Description |
|----------------|---|
| /UGI7/AIW_MENU | SAP Asset Information Workbench by Utopia: Menu |

| Role Name | Description |
|-------------------------|---|
| /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_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 Centre |
| /UGI7/AIW_STEW | SAP Asset Information Workbench by Utopia: Steward |

3.5. Web Dynpro Applications

Refer Configuration Guide UGI EAM 730-SP01

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. 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

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_QYERY_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







Check

Authorizations

View: Query definition

| | |
|----------------------------|--------------------|
| Query ID | Description |
| /UGI7/_POWL_EAMWB_QUERY_ID | POWL Query for AIW |

Edit Table Views: Initial Screen

New Entries     Query Parameters  Query Settings  Layout variable

Query ID

View: Query definition

Description

POWL Type ID

☐ Sync. call

Layout

Refresh Type

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






Change View "Category definition": Overview

New Entries       BC Set: Change Field Values

Category definition

| Category | Description |
|----------------------------|--------------------|
| /UGI7/_POWL_EAMWB_CATEGORY | POWL Query for AIW |

Change View "Category definition": Details

New Entries ☐      BC Set: Change Field Values

Category

Category definition

Description

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 

| 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 

Application: /UGI7/_POWL_EAMWB_APPLID

Role:

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

| POWL Type ID | Description |
|---------------------------|-----------------|
| /UGI7/_POWL_EAMWB_TYPE_ID | Type ID for AIW |

Change View "View: Type definition": Details

New Entries

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

| 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    Check

Application

Role

POWL Type ID

View: Type - Role assignment








Description

3.6. Active Services in SICF

To use the POWL Application the following service needs to be activated:

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

Define Services

Create Host/Service     External Aliases   System Monitor Active 




Filter Details












Virtual Host Service Path

ServiceName



Description

Lang. Ref.Service:


 Apply  Reset  Fine-Tune

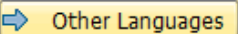
| Virtual Hosts / Services | Documentation | Referen |
|---|--|---------|
| •  plmi | Namespace | |
| ▶  plmpcv | Namespace | |
| ▶  plmu | Namespace | |
| ▶  sap | NAMESPACE SAP | |
| ▶  sloap | Namespace | |
| ▶  SPE | Wed Dynpro Applications for Consolidator ... | |
| ▶  srmerp | Namespace | |
| ▶  ugi | Namespace | |
| ▼  ugi7 | Namespace | |
| •  EAMWB_APP | Asset Information Workbench Application | |
| •  MDG_EAMWB_POWL_INBX | MDG Asset Information Workbench POWL... | |

Create/Change a Service

Path

Service Name  Service (Active)

Lang. 

Description

Description 1

Description 2

Description 3

Service Data Logon Data Handler List Error Pages Administration

Service Options

☐ Web Service

☐ Ignore inherited settings

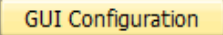
Load Balancing

SAP Authoriz.

Session Timeout (HH:MM:SS)

Compression

Interactive Options

GUI Interface 

Support Accessibility

Create/Change a Service

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Path

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

Lang.

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

Support Accessibility

3.7. Number Ranges

Refer Configuration Guide UGI EAM 730-SP01.

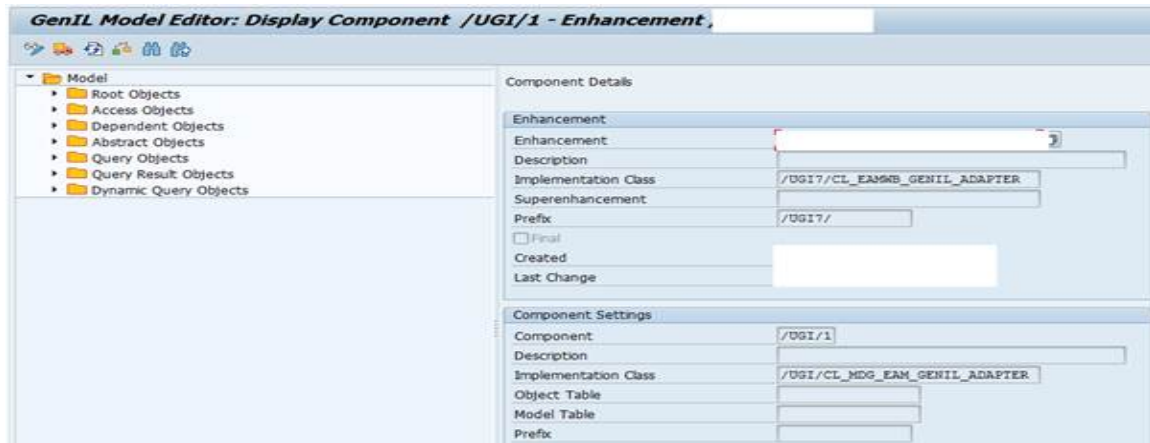
3.8. GenIL (Generic Interaction Layer) Component Adjustments

Refer Configuration Guide UGI EAM 730-SP01.

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



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 Configuration Guide UGI EAM 730-SP01.

3.9.1. Specific Prerequisite Notes

Refer Configuration Guide UGI EAM 730-SP01.

3.10. Prerequisite BC-Set activation

Refer Configuration Guide UGI EAM 730-SP01.

3.10.1. BC-Set for AIW

| BC Set ID | BC Set Description |
|----------------------------------|---|
| /UGI7/ASSETWB_CRTYPES | Change Request Types for AIW |
| /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 |
| MDGAG_BCV | BCV Content for MDG Framework |

3.10.2. BC-Set for HANA Search

Refer Configuration Guide UGI EAM 730-SP01.

4. Configuration Process

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

4.1. Common for all objects

Process Multiple EAM Masters

4.2. Activate the Data Model U1

Refer Configuration Guide UGI EAM 730-SP01.

4.3. Activate Business Configuration Set

Refer Configuration Guide UGI EAM 730-SP01.

4.4. Activate BC-Sets for Change Request Types

Refer Configuration Guide UGI EAM 730-SP01.

4.5. Navigate User Interface

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

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

Refer Configuration Guide UGI EAM 730-SP01.

4.5.1.1. 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 |

4.5.2. Link Logical Actions with Business Activity: Standard Definition

Refer Configuration Guide UGI EAM 730-SP01.

4.6. 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 |

4.7. Set Up Search

Refer Configuration Guide UGI EAM 730-SP01.

4.7.1. Create the Search View

Refer Configuration Guide UGI EAM 730-SP01.

4.8. Verify Data Quality, Search Settings and Duplicate Check

Refer Configuration Guide UGI EAM 730-SP01.

4.8.1. Configuration of the duplicate check for HANA search

Refer Configuration Guide UGI EAM 730-SP01.

4.9. Verify Remaining Process Modeling Settings

Refer Configuration Guide UGI EAM 730-SP01.

4.9.1. Mixed Multi-Object Change Request (MOCR)

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

4.9.1.1. UAIW Mixed Mass Processing

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 shows 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 |
|-------------|---------------|------------------|----------|----------------|
| 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 |
| 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 |
| WORKCNR | <leave empty> | <leave empty> | No | Standard |

To the change request type, add the following Business Activity:

| Business Activity | Description |
|-------------------|-----------------------------|
| UAIW | Asset Information Workbench |

4.10. Configuration Change Request Settings

Refer Configuration Guide UGI EAM 730-SP01.

4.10.1. Configuration Variant Splitter

Refer Configuration Guide UGI EAM 730-SP01.

4.11. Configure Workflow Tasks

There are two types of change requests with the following approval types:

- Serial Approval

- Parallel approval

4.11.1. 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".

Either you can configure both parallel workflow and serial workflow at once or any one independently

4.11.1.1. 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.

Change View "Type of Change Request": Overview

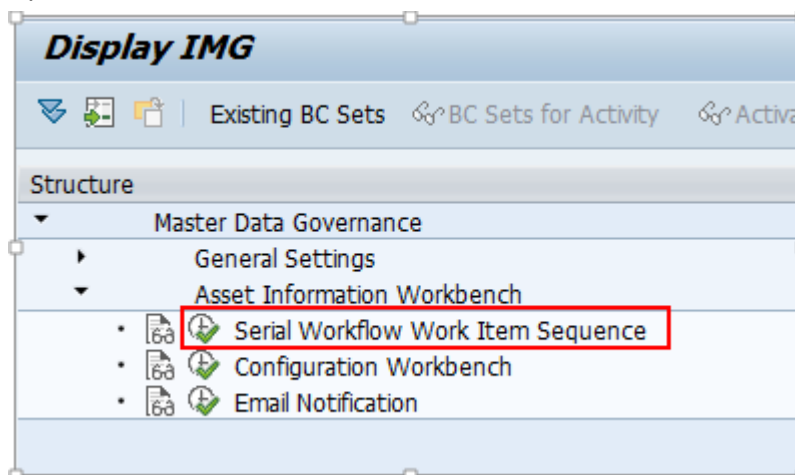
New Entries | BC Set: Change Field Values

| Type of Chg. Request | Edition Type | Data Model | Description (medium text) | Objects Re... | Single Obj... | Parallel | Main Entity Type | Workflow |
|----------------------|--------------|------------|--------------------------------------|--------------------------|--------------------------|--------------------------|------------------|------------|
| AIWEAM0P | | U1 | Asset Information Workbench Parallel | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | WS80000007 |
| AIWEAM0S | | U1 | Asset Information Workbench Serial | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | WS80000010 |

4.11.2. Configure Workflow work item Serial Order- Only for Serial Workflow

Use the following steps to configure workflow item Serial order:

1. Go to transaction MDGIMG ► Asset Information Workbench ► Serial Workflow Work Item Sequence



2. Click new and enter the CR type as displayed in the following screen.

Change View "CR Type Details": Overview

New Entries

Dialog Structure

- CR Type Details
 - Entity Details

CR Type Details

| Type of Chg. Request | Description (long text) |
|----------------------|--------------------------------------|
| AIWEAM0P | Asset Information Workbench Parallel |
| AIWEAM0S | Asset Information Workbench Serial |

3. In Entity details, enter the entity type and Sequence in expected serial order as displayed in the following screen.

Display View "Entity Details": Overview

Type of Chg. Request: AIWEAM0S

Entity Details

| Entity Type | Sequence ... | Description |
|-------------|--------------|-------------------------------|
| EQUI | 1 | Equipment |
| FUNCLOC | 2 | Functional Location |
| MPLAN | 5 | Maintenance Plan |
| MSPPOINT | 4 | Measuring Point |
| PMBOMHDR | 9 | Material BOM |
| TLEQHDR | 7 | Equipment Task List |
| TLFLHDR | 6 | Functional Location Task List |
| TLGNHDR | 8 | General Task List |
| WORKCNTR | 1 | Work Center |

4.11.2.1. 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 below for "AIWEAM0S".

| Type of CR | CR Step | Key | Validation | Description |
|------------|---------|-----|------------|--|
| AIWEAM0P | 0 | | | 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 |
| AIWEAM0P | 41 | | | Functional Location Specialist |
| AIWEAM0P | 42 | | | Measuring Points Specialist |
| AIWEAM0P | 43 | | | Work Center Specialist |
| AIWEAM0P | 44 | | | Maintenance Plan Specialist |

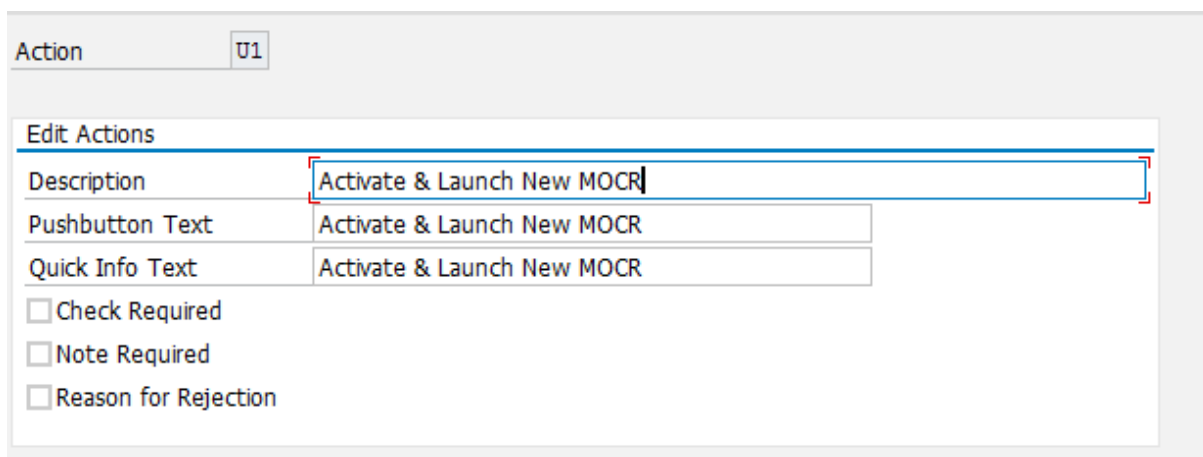
| Type of CR | CR Step | Key | Validation | Description |
|------------|---------|-----|------------|---------------------------------|
| AIWEAM0P | 45 | | | General Task List Specialist |
| AIWEAM0P | 46 | | | Func. Loc. Task List Specialist |
| AIWEAM0P | 47 | | | Equipment Task List Specialist |
| 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 |

4.11.2.2. 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.

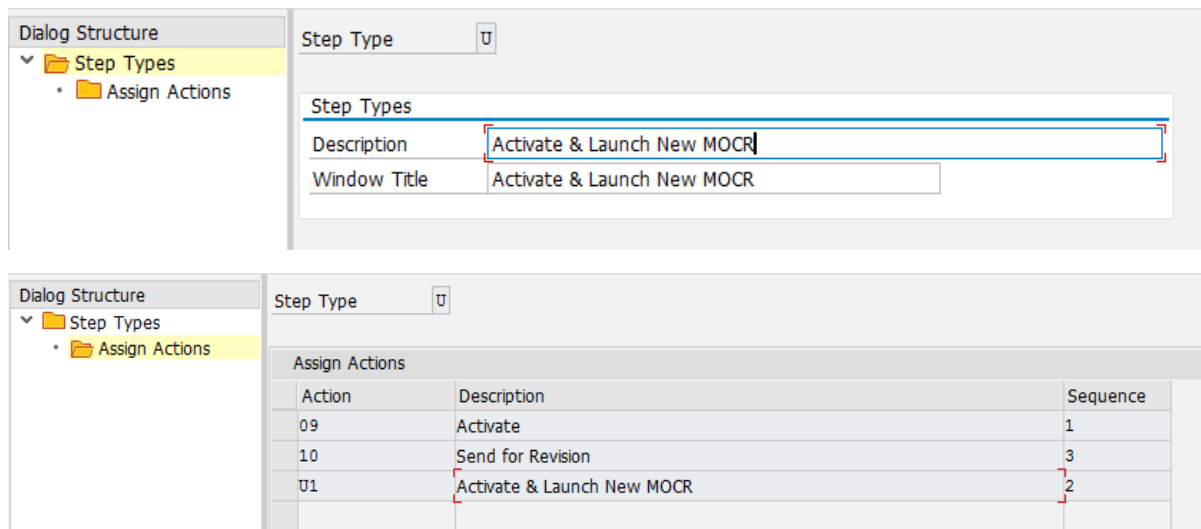
AIW specific Custom Action 'U1' is defined to handle 'Activate & Launch New MOCR' functionality of the workflow process.



4.11.2.3. 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+.



Step Types

| Description | Window Title |
|----------------------------|----------------------------|
| Activate & Launch New MOCR | Activate & Launch New MOCR |

Assign Actions

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

4.12. 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).

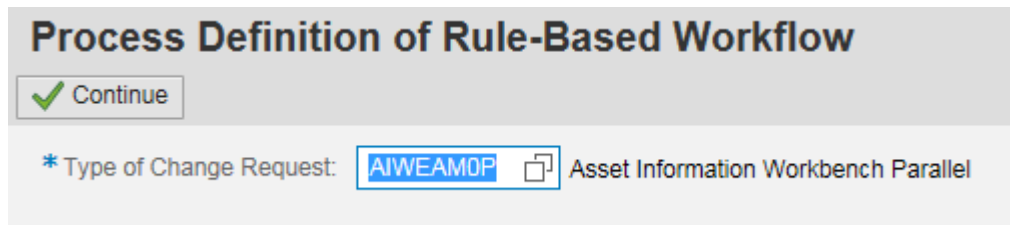
Customizing activity using transaction path MDGIMG ► General Settings ► Process Modeling ► Workflow ► Rule-Based Workflow ► Configure Rule-Based Workflow.

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.

4.12.1. 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.

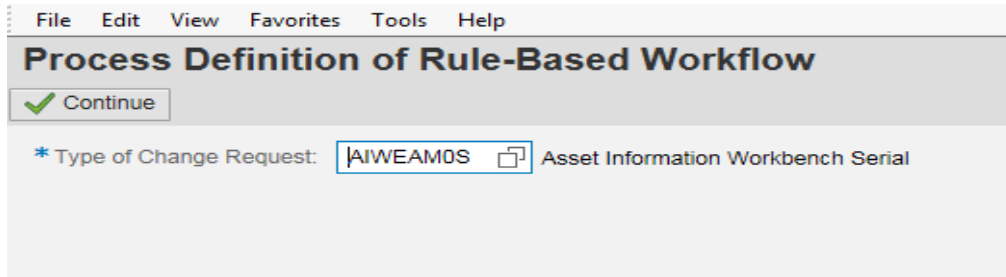


Process Definition of Rule-Based Workflow

Continue

* Type of Change Request: AIWEAM0P Asset Information Workbench Parallel

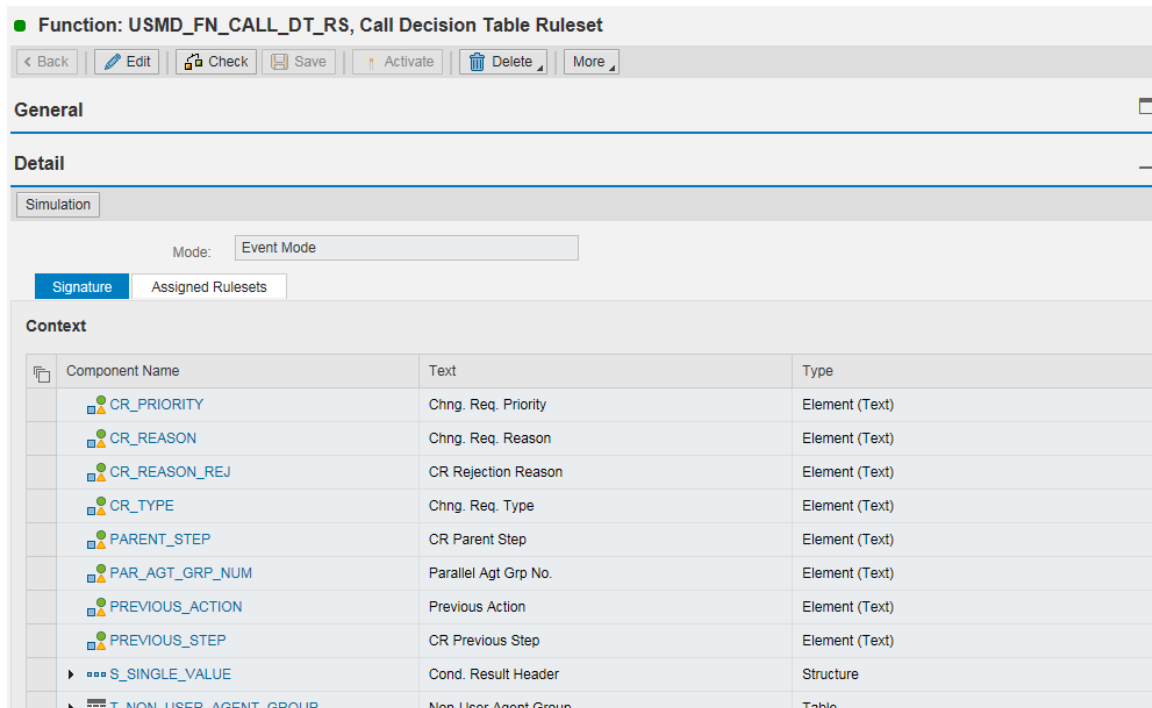
In case of Serial Workflow, enter the Change request type as displayed in the following screen and follow same process.



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:

- 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.



| 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.
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:

Bind to DDIC element (Data Dictionary)

Bind to existing BRFplus element

No Binding

Element Attributes

Length: 255

U...

Create

Create And Navigate To Object

Cancel

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:

Access Level:

ID:

Storage Type:

Detail

Properties
Domain Values
Additional Properties

Define Data Binding

Binding Type:
Refresh Binding

DDIC Element:
Where-Used List

DDIC Description:

Define Element Properties

Element Type:

Allowed Comparisons:

Element Attributes

Length:

Convert to Uppercase: ☒

You can view the added parameter in the Function to Call Ruleset screen.

● **Function: USMD_FN_CALL_DT_RS, Call Decision Table Ruleset**

< Back Edit Check Save Activate Delete More

General

Detail

Simulation

Mode: Event Mode

Signature Assigned Rulesets

Context

| Component Name | Text | Type |
|------------------------------|----------------------|----------------|
| 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 |
| ■ ■ ■ T_USER_AGENT_GROUP | User Agent Group | Table |
| USMD_ENTITY | Entity type | Element (Text) |

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

7. 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. Shown below is the screenshot of BRF+ rules configured for Step 4 workflow approval process.

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:

- Expand Decision tables, and double-click on Single Value Decision table.

The Table Contents are displayed.

Detail

Export To Excel Context Overview Start Simulation

Table Contents

Find: Next Previous Table Settings

| Entity Type | CR Previous Step | Previous Action | Chng. Req. Priority | Chng. Req. Reason |
|---------------------------------|--------------------------|---------------------------|---------------------|-------------------|
| =EQUI (Equipment) | =00 (Processing) | | | |
| =FUNCLOC (Functional Location) | =00 (Processing) | | | |
| =MSPOINT (Measuring Point) | =00 (Processing) | | | |
| =WORKCNTR (Work Center) | =00 (Processing) | | | |
| =MPLAN (Maintenance Plan) | =00 (Processing) | | | |
| =TLGNHDR (General Task List) | =00 (Processing) | | | |
| =TLFLHDR (Functional Location T | =00 (Processing) | | | |
| =TLEQHDR (Equipment Task List | =00 (Processing) | | | |
| =PMBOMHDR (Material BOM) | =00 (Processing) | | | |
| =EQUI (Equipment) | =70 (Equipment Process | =05 (Finalize Processing) | | |
| =EQUI (Equipment) | =70 (Equipment Process | =06 (Send for Revision) | | |
| =FUNCLOC (Functional Location) | =72 (Functional Location | =05 (Finalize Processing) | | |
| =FUNCLOC (Functional Location) | =72 (Functional Location | =06 (Send for Revision) | | |
| =MSPOINT (Measuring Point) | =74 (Measuring Points Pr | =05 (Finalize Processing) | | |
| =MSPOINT (Measuring Point) | =74 (Measuring Points Pr | =06 (Send for Revision) | | |



DT_SINGLE_VAL_AI
WEAM0P.xlsx

- Download the attached Excel file from the link [EAM Help Portal](#) on Utopia's website.
- Click Table Settings button from the Table Contents.

The Table Settings dialog box is displayed.

- Locate the USMD_ENTITY parameter in the Condition Columns and move it to the first row within the list of columns.

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 type="checkbox"/> | Full Access (Changes... |
| | PREVIOUS_STEP | CR Previous Step | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Full Access (Changes... |
| | PREVIOUS_AC... | Previous Action | <input type="checkbox"/> | <input type="checkbox"/> | Full Access (Changes... |
| | CR_PRIORITY | Chng. Req. Priority | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Full Access (Changes... |
| | CR_REASON | Chng. Req. Reason | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Full Access (Changes... |
| | CR_REASON_REJ | CR Rejection Reason | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Full Access (Changes... |
| | PARENT_STEP | CR Parent Step | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Full Access (Changes... |
| | PAR_AGT_GRP... | Parallel Agt Grp No. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Full Access (Changes... |

Result Columns

| | Column Name | Text | Action Column | Mandatory Input | Column Accessibility |
|--|-------------|------|---------------|-----------------|----------------------|
|--|-------------|------|---------------|-----------------|----------------------|

8. 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.

| Detail | | | | |
|--|------------------|-------------------------------|-------------------------------------|-------------------------|
| <div>Export To Excel</div> <div>Context Overview</div> <div>Start Simulation</div> | | | | |
| 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) | /JGI7/AIW_SPEC_EQUI |
| =41 | 001 | 2 (Approve Change Request) | AG (Role) | /JGI7/AIW_SPEC_FUNCLOC |
| =42 | 001 | 2 (Approve Change Request) | AG (Role) | /JGI7/AIW_SPEC_MSPOINT |
| =43 | 001 | 2 (Approve Change Request) | AG (Role) | /JGI7/AIW_SPEC_WORKCNTR |
| =44 | 001 | 2 (Approve Change Request) | AG (Role) | /JGI7/AIW_SPEC_MPLAN |
| =45 | 001 | 2 (Approve Change Request) | AG (Role) | /JGI7/AIW_SPEC_TLGNHDR |
| =46 | 001 | 2 (Approve Change Request) | AG (Role) | /JGI7/AIW_SPEC_TFLHDR |
| =47 | 001 | 2 (Approve Change Request) | AG (Role) | /JGI7/AIW_SPEC_TLEQHDR |
| =48 | 001 | 2 (Approve Change Request) | AG (Role) | /JGI7/AIW_SPEC_PMBOMHDR |
| =11 | 001 | U (Activate & Launch New MOCR | AG (Role) | /JGI7/AIW_STEW |

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DT_USER_AGT_GRP_
AIWEAM0P.xlsx

- Download the attached Excel file from the link [EAM Help Portal](#) on Utopia's website.
9. 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'.

| Detail | | | |
|--|-------------|-----------------------------------|----------------|
| <div>Export To Excel</div> <div>Context Overview</div> <div>Start Simulation</div> | | | |
| 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_AIWEAM0P.xls

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

4.13. 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

4.13.1. SAP NetWeaver Portal

Refer Configuration Guide UGI EAM 730-SP01

4.13.2. 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.

4.14. Configure Process Quality Metrics (Optional)

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

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 ►.

4.14.1. Change Request Priorities

| Priority | Description |
|----------|-----------------|
| 1 | High Priority |
| 2 | Medium Priority |
| 3 | Low Priority |

4.14.2. Change Request Reasons

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

4.14.3. 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 |

4.15. Workflow Templates for SAP Asset Information Workbench by Utopia

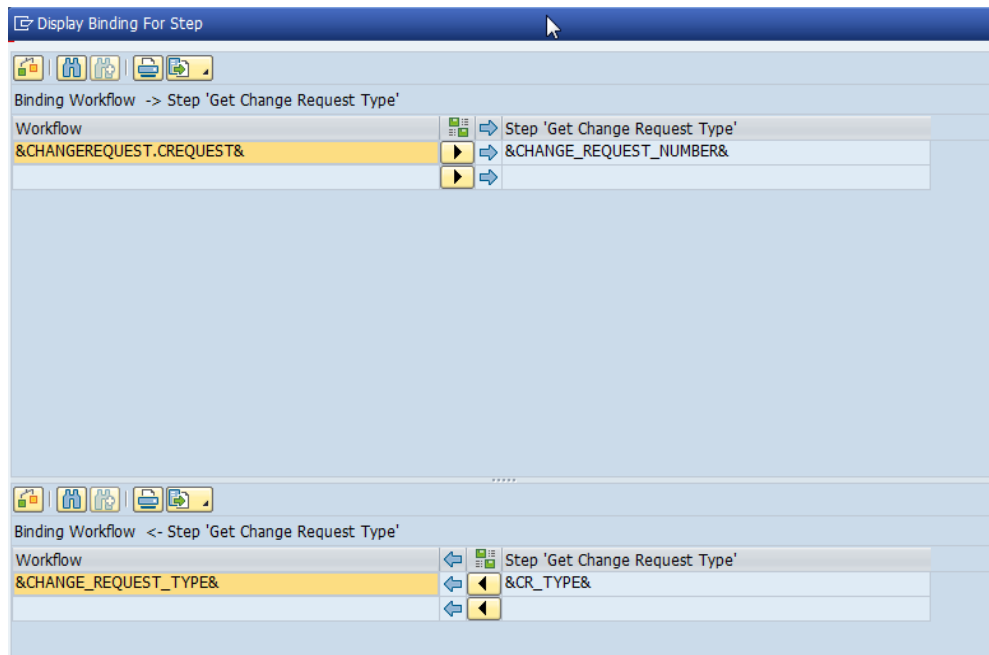
AIW is delivered with two possible workflow scenarios (Parallel and Serial). This section describes about the parallel workflow approval process of AIW. Two custom workflow templates are created for this scenario and the following section provides detailed description.

4.15.1. WS80000007 – Mixed Multi-Object Change Request Change Request WF

This workflow template consists of the following steps:

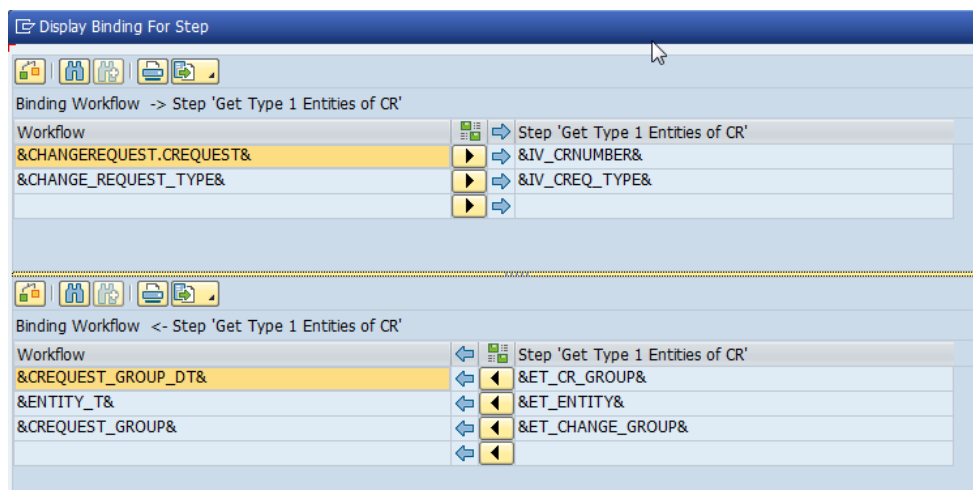
1. Start workflow
The MOCR workflow is started when a user submits a MOCR.
2. Get Change Request Type

This background 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'. 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

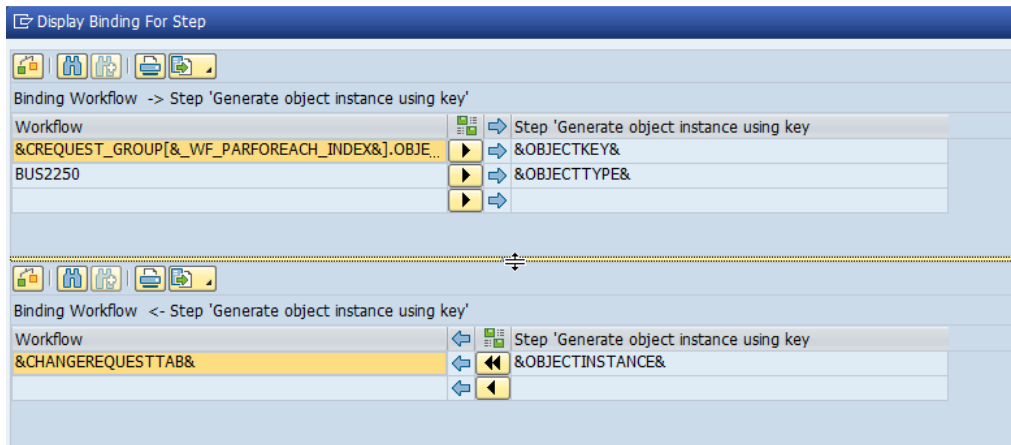
This background step retrieves all type 1 entities in MOCR into workflow container. This is done by executing the method 'GET_CREQUEST_ENTITIES' of class 'UGI7/USMD_WF_SSW'. Custom task 'TS80000008' (step 000240) is created for this purpose. The following screen displays the binding between task and workflow container.



4. Generate object instance using key

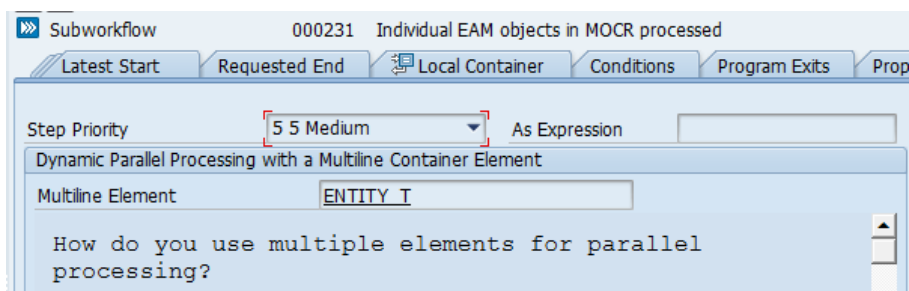
This background step creates one instance of business object 'BUS2250' for each type 1 entity group determined in step (b) above and updates the workflow container. This is achieved by creating parallel instance for each entry in workflow container 'CREQUEST_GROUP' and calling the method 'GENERICINSTANTIATE'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

'TS01200205' (step 000240). The following screen is the binding between task and workflow container.

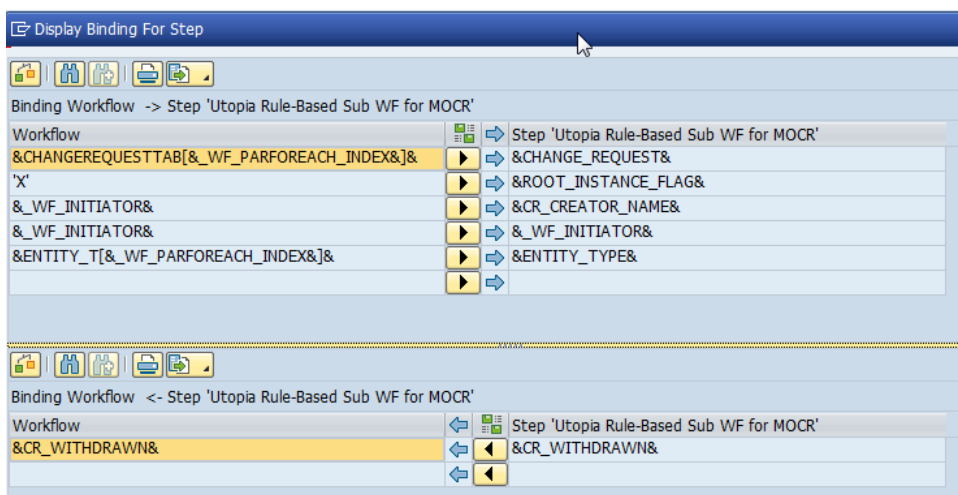


5. MDG BRF+ (Parallel processing of Technical objects in MOCR)

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'.



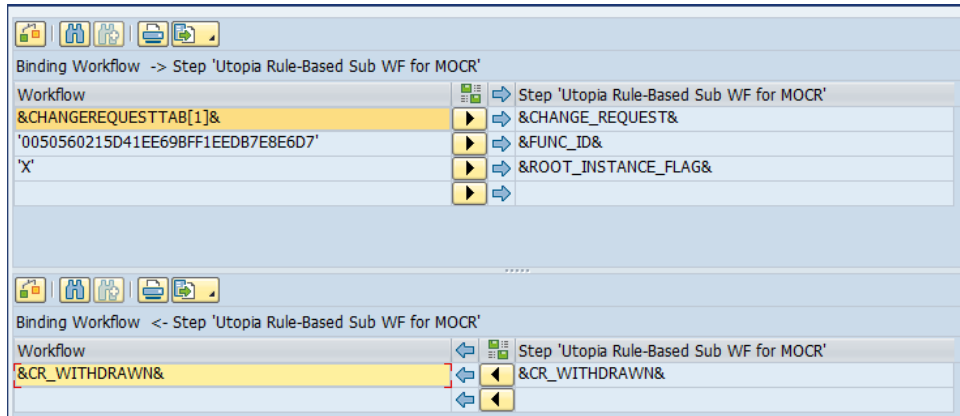
Index [&WF_PARFOREACH_INDEX&] is used to access each element in container 'ENTITY_T'.

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.



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

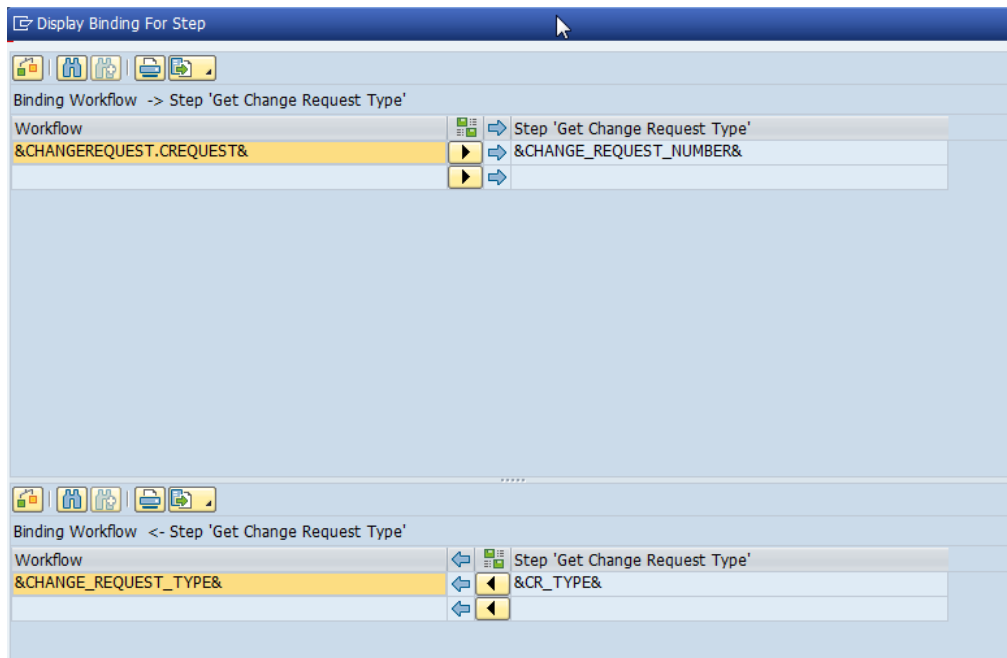
Use the following steps involved in this workflow template:

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' else the task 'TS80000010'.

TS80000011

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& |

TS80000021

This task calls the method 'FIND_EAM_PATH_PROCESSOR' of class '/UGI7/USMD_WF_SSW'. The following screen displays the binding between task and workflow container.

| Binding Workflow -> Step 'Find Path & Processor in MOCR Main WF' | |
|--|---|
| Workflow | Step 'Find Path & Processor in MOCR Main' |
| &GENERIC_CONTEXT& | &CT_CONTEXT_TAB& |
| &MESSAGE_TAB& | &CT_MESSAGE& |
| &_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& |
| &FUNC_ID& | &IV_FN_ID& |
| &PARENT_STEP& | &IV_PARENT_STEP& |
| &PAR_AGT_GRP_NUM& | &IV_PAR_AGT_GRP_NUM& |
| &CHANGE_REQUEST.CREQUEST& | &IV_CR_NUMBER& |
| &STEP_ACTION.STEP& | &IV_STEP& |
| &STEP_ACTION.ACTION& | &IV_ACTION& |
| Binding Workflow <- Step 'Find Path & Processor in MOCR Main WF' | |
| Workflow | Step 'Find Path & Processor in MOCR Main' |
| &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_GROUP | |
| ES_STEP_RSLT_MERGE_HANDLER | Exporting | USMD_S_STEP_RSLT_MERGE_HANDLER | |
| EV_CR_STATUS | Exporting | USMD_CREQUEST_STATUS | Status of Change Request |
| 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.

4. 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

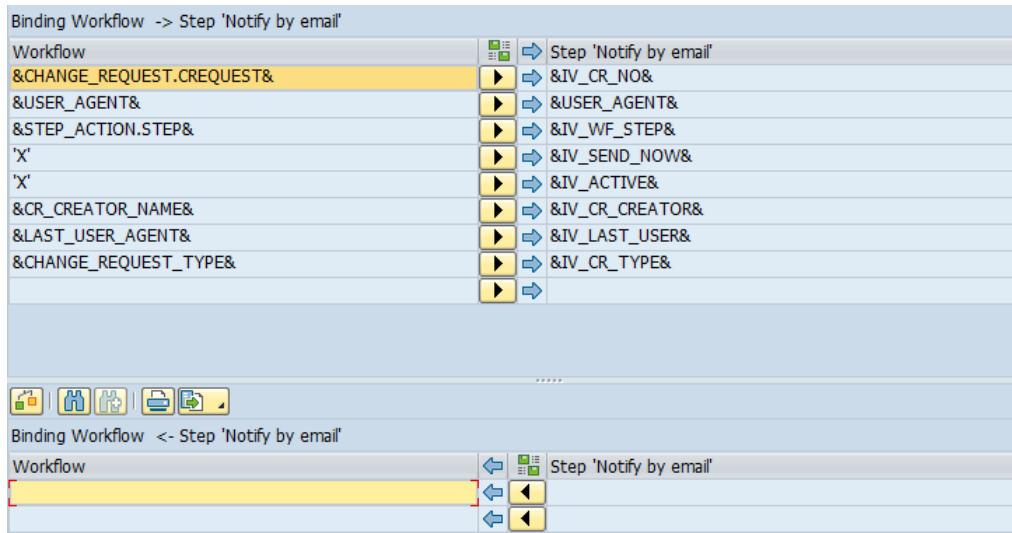
If single processing is necessary, the system, for example, sends the change request to a user and retrieves the relevant processing templates defined in the decision table for the next workflow step. For example, when the change request is created, the next step might determine that the change request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

The following task(s) exists within single processing:

TS80000007: (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'.

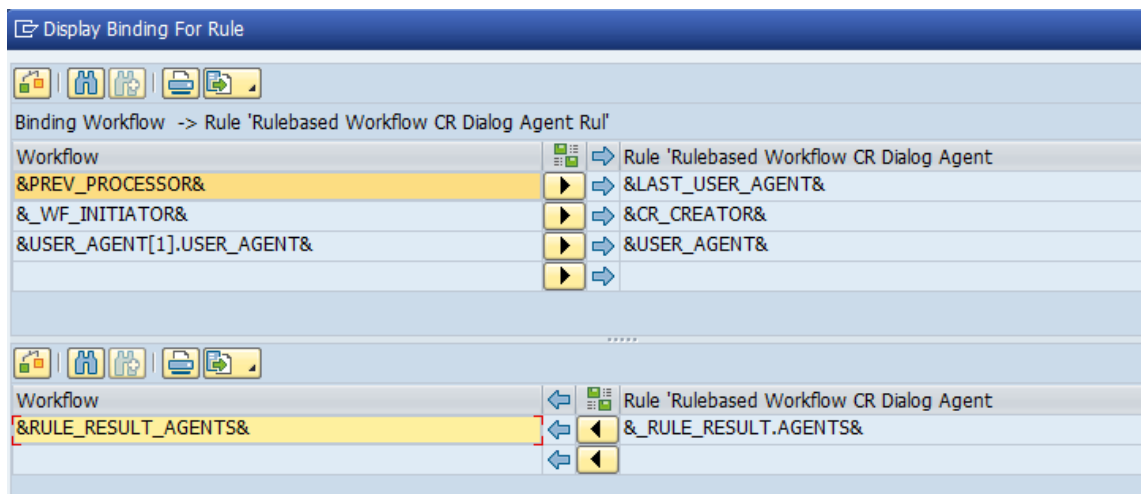
The following screen displays the binding between workflow and task container.



The screenshot shows the 'Binding Workflow -> Step 'Notify by email'' screen. It displays a table with workflow steps and their corresponding task parameters. The steps are: &CHANGE_REQUEST.CREQUEST&, &USER_AGENT&, &STEP_ACTION.STEP&, 'X', 'X', &CR_CREATOR_NAME&, &LAST_USER_AGENT&, and &CHANGE_REQUEST_TYPE&. The task parameters are: &IV_CR_NO&, &USER_AGENT&, &IV_WF_STEP&, &IV_SEND_NOW&, &IV_ACTIVE&, &IV_CR_CREATOR&, &IV_LAST_USER&, and &IV_CR_TYPE&.

TS80000022: (Notify by Email)

This task creates the dialog work item for approver by processing the rule '60800140' and executing the method 'PROCESS' of business object 'BUS2250'. The following screen displays the rule and task binding.



The screenshot shows the 'Display Binding For Rule' screen. It displays a table with workflow steps and their corresponding rule parameters. The steps are: &PREV_PROCESSOR&, &_WF_INITIATOR&, and &USER_AGENT[1].USER_AGENT&. The rule parameters are: Rule 'Rulebased Workflow CR Dialog Agent', &LAST_USER_AGENT&, &CR_CREATOR&, and &USER_AGENT&.

| Display Binding For Step | | |
|---|----|---------------------------|
| Binding Workflow -> Step 'MOCR Approval Item' | | |
| Workflow | | Step 'MOCR Approval Item' |
| &USER_AGENT[1].STEP_TYPE& | ▶▶ | &STEP_TYPE& |
| &CR_CREATOR_NAME& | ▶▶ | &CR_CREATOR_NAME& |
| &STEP_ACTION.STEP& | ▶▶ | &APPSTEP& |
| &WITEXT& | ▶▶ | &WITEXT& |
| &CHANGE_REQUEST& | ▶▶ | &_WI_OBJECT_ID& |
| ***** | | |
| Binding Workflow <- Step 'MOCR Approval Item' | | |
| Workflow | | Step 'MOCR Approval Item' |
| &STEP_ACTION.ACTION& | ◀◀ | &ACTION_RESULT& |
| &LAST_USER_AGENT& | ◀◀ | &PROCESSOR& |
| &CHANGE_REQUEST& | ◀◀ | &_WI_OBJECT_ID& |
| | | |

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'. 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

| Display Binding For Step | | |
|---|----|---------------------------|
| Binding Workflow -> Step 'Launch Sequence CR' | | |
| Workflow | | Step 'Launch Sequence CR' |
| &CHANGE_REQUEST.CREQUEST& | ▶▶ | &IV_CREQUEST& |
| | | |
| ***** | | |
| Binding Workflow <- Step 'Launch Sequence CR' | | |
| Workflow | | Step 'Launch Sequence CR' |
| &SEQUENCE_CR& | ◀◀ | &EV_NEW_CR& |
| &LAUNCH_SEQUENCECR& | ◀◀ | &EV_SUCCESS& |
| &MESSAGE_TAB& | ◀◀ | &ET_MESSAGE& |
| | | |

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 |

4.16. 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.

4.16.1. Disclaimer

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

4.16.2. Email Configuration

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

4.16.2.1. 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.

Transparent Table

/UGI7/EMAIL_CONF

Active

Short Description

EAM WB Email Notification Config Table











Attributes

Delivery and Maintenance

Fields

Input Help/Check

Currency/Quantity Fields



Srch Help

Predefined Type

1 / 8

| 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 |

4.16.2.2. Maintenance View

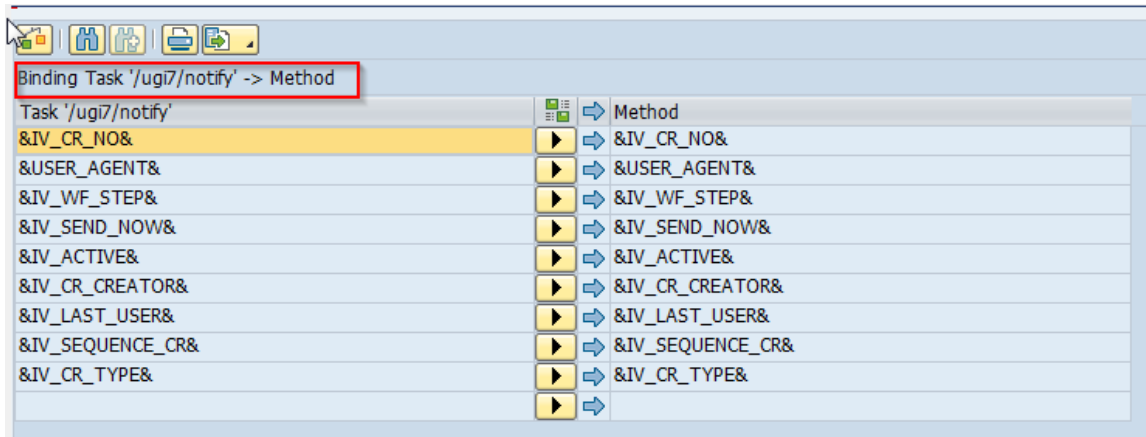
Maintenance view '/UGI7/V_EM_CONF' is created to add new / change configuration of the emails in the table '/UGI7/EMAIL_CONF'. This view can be accessed using the transaction code 'SM30'.

4.16.3. Technical Details

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

4.16.3.1. Standard Task - TS 90000001

The task 'TS 90000001' 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.



| Binding Task '/ugi7/notify' -> Method | |
|---------------------------------------|------------------|
| Task '/ugi7/notify' | Method |
| &IV_CR_NO& | &IV_CR_NO& |
| &USER_AGENT& | &USER_AGENT& |
| &IV_WF_STEP& | &IV_WF_STEP& |
| &IV_SEND_NOW& | &IV_SEND_NOW& |
| &IV_ACTIVE& | &IV_ACTIVE& |
| &IV_CR_CREATOR& | &IV_CR_CREATOR& |
| &IV_LAST_USER& | &IV_LAST_USER& |
| &IV_SEQUENCE_CR& | &IV_SEQUENCE_CR& |
| &IV_CR_TYPE& | &IV_CR_TYPE& |

4.16.3.2. 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. These 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' |

| Text Object | Description |
|--------------------------|---|
| /UGI7/EAM_SWN_BODY_SEQCR | Email content used in sequence launch of MOCR |

4.16.3.3. 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 Email subject and body is built the program sends the email by calling the method 'SEND' of class 'CL_BCS'.

4.16.4. Dependencies

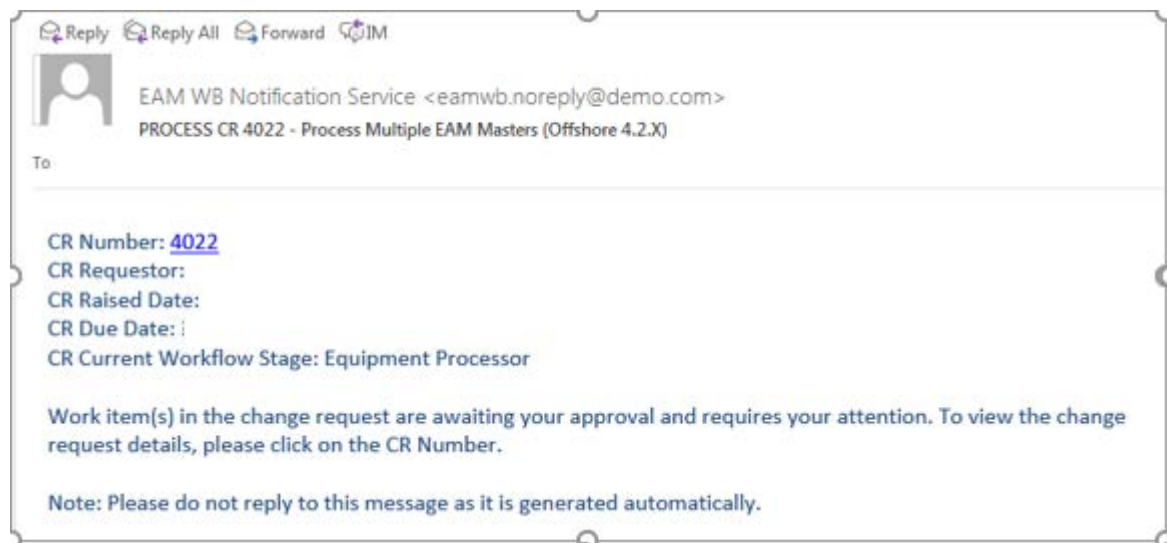
The following list of objects that should exist for the email functionality to work without issues.

- 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'.

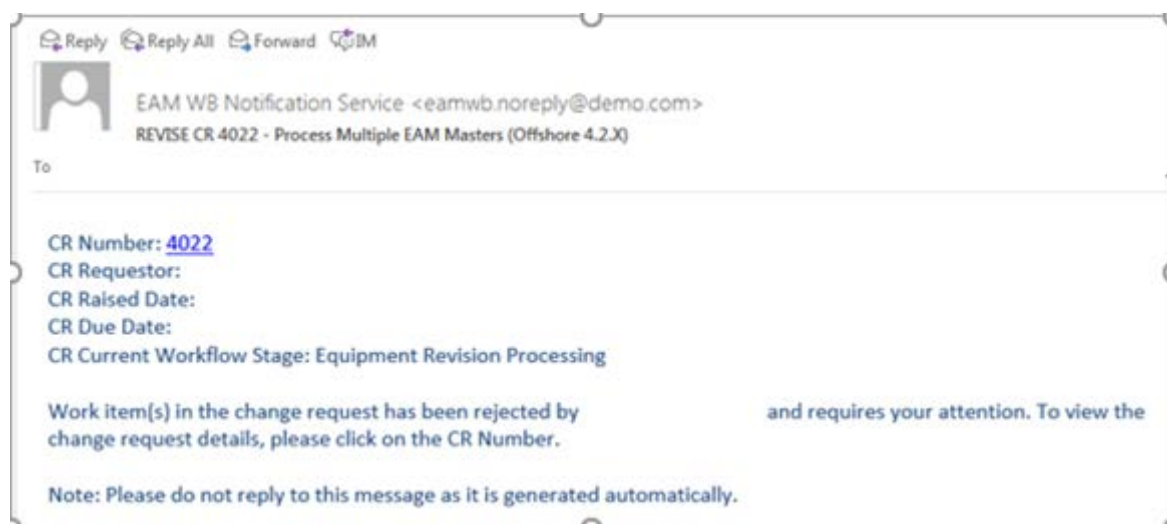
4.16.5. Sample Emails / Notifications

This section displays sample emails and notifications.

4.16.5.1. Approve or Process Change Request



4.16.5.2. Revise Change Request



4.17. System Compatibility

You can install AIW only below configuration.

- MDG 9.0
- UGI EAM 730-SP01

4.18. 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 (0G), Material Master (MM), or Business Partner/Customer/Supplier (BP) additional entries may appear in this list.