

SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

Configuration Guide

Disconnection Process using SAP Build Process Automation or SAP Workflow Management

Table of Contents

Table of Contents.....	2
Overview.....	3
Artifacts.....	4
Process	4
Process Variants	6
Import Disconnection process and Configure Process Variants with SAP Build Process Automation.....	6
Import Disconnection process and Configure Process Variants with SAP Workflow Management.....	7
Decisions & Policies	7
Determination Strategy.....	8
Determination of Due date	8
Determination of Admin	9
Approver Determination by Connection Object	9
Approver Determination by Plant	10
Determine Plant Based Approver from External Service.....	10
Determine Connection Object Based Approver from External Service.....	12
Process Visibility	13
Configure Visibility Scenarios in SAP Build Process Automation.....	13
Configure Visibility Scenarios in SAP Workflow Management.....	13
Access Process Workspace in SAP Build Process Automation	13
Access Process Workspace in SAP Workflow Management	14
SAP ISU Configuration.....	15

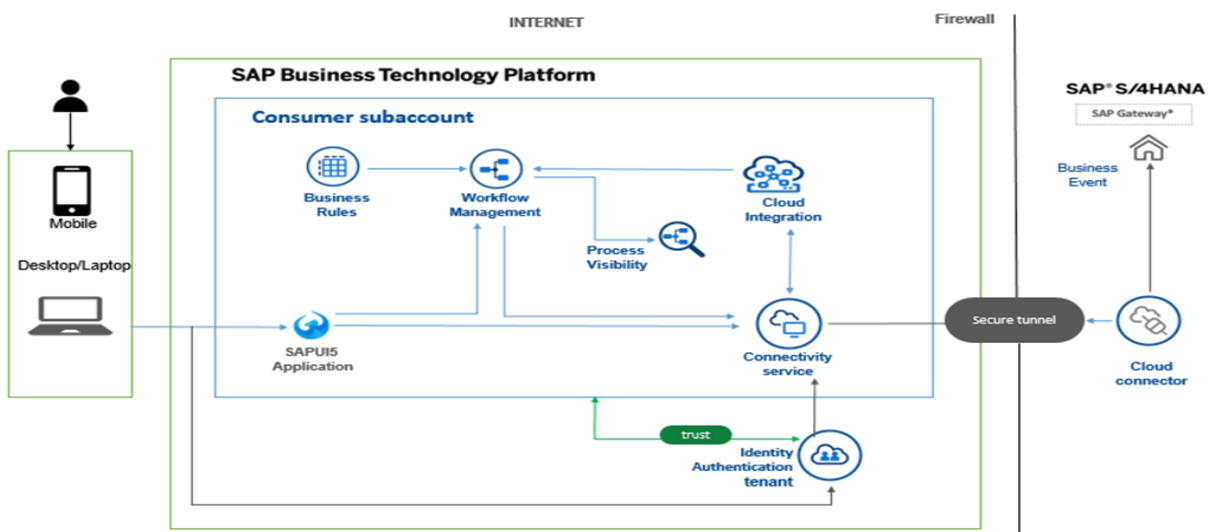
Overview

This is configuration guide for Disconnection process. Business Process Experts and Service Operators are target users of this document. Customer can configure Process based on Plant or Connection object parameters. Disconnection Process content package for S/4 HANA enables trigger Disconnection for Installation of devices, a pre-configured process variant is triggered in SAP Build Process Automation or SAP Workflow Management based on business conditions configured by process expert

Disconnection process is carried out by ISU User for disconnecting utility services. The process involves creation of Service request followed by creation of disconnection document, disconnection order and updating of meter reads

Salient features of this content package are:

- Plug and Play with SAP S/4 HANA without additional development.
- New Process variants can be configured in a no-code approach.
- Agent/approver determination using Business Rules or external service.
- Pre-built integration content to call SAP S/4 HANA from SAP Build Process Automation or SAP Workflow Management
- Out-of-the-box visibility into key process performance indicators.



Artifacts

A package consists of process templates, process steps, process variants, decisions, and process visibility models. Please refer [help documentation](#) about these artifacts.

Process

A process template is a set of business activities and tasks that, once completed, fulfills an organization goal. The **Disconnection Process** package contains the following process template.

Disconnection Process –

This process Template defines De Energization process for Installations registered for Business Partners.

This process template presents two variants Connection Object and Plant based on configuration options.

This template represents seamless integration of different stages of Disconnection process.

Informative Notifications and reminders are configured at significant stages of process.

All the relevant details are presented for Approvers to enable efficient decisions.

Complex process is divided into relevant steps to present insightful view for all stakeholders.

The template provides two exclusive steps based on configuration options at the start of main process.

Table 1. Process Steps

Process Steps	Cardinality	Detailed Description
Approver Determination Based on Connection Object	0 OR 1	This is start step of Disconnection provided Connection Object based configuration used. This determines approvers based on Connection Object for further processing.
Approver Determination Based on Plant	0 OR 1	This is start step of Disconnection provided Plant based configuration used. This determines approvers based on Plant for further processing.
Disconnection Document	1 - 1	This is main Process Step for Disconnection. This trigger multistage processing of Disconnection. This has Notification and reminders configured at all relevant steps. Complex process is divided into multistage processing to give insights at each step of processing.

A process step can have customizable properties and they could influence the outcome of the process step. For example, the Create disconnection Order and Update Meter Reading have Approval Method as a configurable parameter in which user can select either Plant or connection Object based on which the approver will be determined. Please see Table 2 for more details.

Sample Context

```
"context": {
  "request": {
    "discno": "000000000358",
    "dstatus": "21 (Disconnection carried out)",
    "installationNumber": "3000000028",
    "businessPartner": "1000000052",
    "serviceRequestNumber": "8000000247",
    "connectionObj": "1000000075",
    "premise": "2000000020",
    "division": "01",
    "divisionTxt": "Electricity",
    "disconPlannedDate": "13.01.2022",
    "disconPlannedTime": "18:28:02",
    "procVar": "CUST",
    "status": "01",
    "devices": [
      {
        "logiknr": 119,
        "equnr": "1000040",
        "eqktx": "Meter with 1phase",
        "matnr": "1",
        "sernr": "908081567",
        "maktx": "Meter with 1phase",
        "vZwstand": 12,
        "nZwstand": 0,
        "messageType": "",
        "message": ""
      }
    ],
    "plant": "1000",
    "serviceReqType": "<custom request type, example ZSR>",
    "history": [],
  }
}
```

```

"Status": {},
"internal": {},
"Requester": {
  "MailID": "<Mail ID of the requester>"
},
}
}

```

Process Variants

A process variant consists of multiple process steps configured by a line of business expert. It is possible to create multiple variants of the same process.

Please refer [help documentation](#) about how to import content packages and configure a process variant.

The screenshot displays the SAP Build Process Automation interface for configuring a process variant. The main window is titled "Manage Disconnection By Plant" and includes "Undo", "Redo", "Save", and "Activate" buttons. On the left, the "Available Steps (3)" panel lists three options: "Approver Determination By... Approver Determination By Connection Object", "Approver Determination By... Approver Determination By Maintenance Plant", and "Disconnection Disconnection Document Process". The central workspace shows a flow diagram starting with a green start node, followed by the "Approver Determination By Maintenance Plant" step, then the "Disconnection" step, and ending at a red end node. On the right, the "Process Variant Properties" panel is open to the "General" tab, showing fields for "Name*" (Manage Disconnection By Plant), "Process" (ManageDisconnection), "Description" (This represents Disconnection process based on Plant selection.), "Workflow Definition ID" (managedisconnection.managedisconnectio...), and "Leading Workflow Definition ID" (managedisconnection_leadingworkflow).

Import Disconnection process and Configure Process Variants with SAP Build Process Automation

1. In the [SAP Build Process Automation Store](#), search for live process package Disconnection process and import the same. This content package has one process template and process variant(s) for that template.
2. In the Application Development [Lobby](#), click to open the package with name Disconnection process. This opens the package in a new tab/window.
3. Click the + icon next to the process template to create a new process variant.
4. Enter Name of the new Process Variant (ex, Two Step Approval).
5. Click the newly created Process Variant tile to save and activate the process variant.

6. The process variant has a default implementation with two steps and at least one level of approval.
7. It is possible to remove steps like “Approval for Disconnection process” from a process variant only if there are multiple approvals. Please note that whether a step is mandatory or optional, and how many a times any step can be used within a variant, are dependent on the constraints defined on the process steps.
8. Save and activate the variant. A successful activation will create a new workflow definition in the account that can be viewed in the [Monitor Processes and Workflows app](#).

Import Disconnection process and Configure Process Variants with SAP Workflow Management

1. In Process Flexibility Cockpit app, search for content package Disconnection process and import the same. Please refer the standard help document about [how to import a content package](#). This content package has one process template and process variant(s) for that template.
2. Open content package in Flexibility Cockpit and click Process Variants tile.
3. Click New Process Variant.
4. Enter Name of the new Process Variant (ex. default) and select “Disconnection process” as Process.
5. Click the newly created Process Variant tile to save and activate the process variant.
6. The process variant has a default implementation with two steps and at least one level of approval.
7. It is possible to remove steps like “Approval for Disconnection process” from a process variant only if there are multiple approvals. Please note that whether a step is mandatory or optional, and how many a times any step can be used within a variant, are dependent on the constraints defined on the process steps.
8. Save and activate the variant. A successful activation will create a new workflow definition in the account that can be viewed in the Monitor Workflows – Workflow Definition app in SAP Fiori Launchpad.

Decisions & Policies

One of the important features about business rules is customers can adapt changes in business processes themselves without having to depend upon workflow designers. It gives complete control over decision and policy making.

Central management of decisions is foundation for any efficient business process.

Disconnection Process allows customers flexibility of deciding approvers at different stages of process.

Different Connection Object and Plant based approvers can be assigned using simplicity of business rules.

Disconnection Process Business Rules:

1. Determination Strategy
2. Determination of Due date
3. Determination of Admin
4. Approver Determination by Connection Object
5. Approver Determination by Plant Object

Determination Strategy

Rule Service Name: DetermineStrategy

Manage Projects / Manage Disconnection Approval / Determine Strategy

Details Decision Table

Name: DetermineStrategy	Result: StrategyResponse
Label: Determine Strategy	Status: Active
Description: Rule to determine the approvers Strategy in disconnection process step based on Connection Object ad Plant. It can be either by "Business rule" or by "External service".	Created On: Jan 25, 2022
Hit Policy: First Match	

Decision Table

If	Then
Service Request Type	Strategy
!- ZSR	'External Service'
- ZSR	'Business Rule'

Determination of Due date

Rule Service Name: DueDateDeterminationService

Manage Projects / Manage Disconnection Approval / Determination of Due Date

Details Decision Table

Name: DetermineDueDate	Result: DurationDue
Label: Determination of Due Date	Status: Active
Description: This represents rule for determination of due date	Created On: Jan 13, 2022
Hit Policy: First Match	

Decision Table

If		Then	
Admin Status Flag	Service Request Type	Time Unit	Duration
- false	- ZSR	D'	5
- true	- ZSR	D'	2
- false	!- ZSR	D'	3
- true	!- ZSR	D'	2

Determination of Admin

Central Admin configuration is provided by this business rule.
Admin has authority to assign immediate Approvers for critical stages of process.

Rule Service Name: AdminDeterminationService

Input: Approver (Boolean)

ATTRIBUTE	TYPE	DESCRIPTION
Approver	Boolean	Status for Approver assigned or not

Output: Admin

ATTRIBUTE	TYPE	DESCRIPTION
Admin	String	Admin Details

Approver Determination by Connection Object

Approvers can be assigned using Connection Object for different stages of De Energization Process.

Different Connection Objects can be configured with respective Approvers

Rule Service Name: ApproverDeterminationByConnectionObjectService

Input: DisconObject (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Connection Object	String	Connection Object Identifier

Output: DisconApprover

ATTRIBUTE	TYPE	DESCRIPTION
Approver_Mail_ID	String	Approver Mail ID
Approver_User_ID	String	Approver User Identifier
Approver_User_Group	String	Approver User Group

Approver Determination by Plant

Approvers can be assigned using Plant for different stages of De Energization Process.

Different Plants can be configured with respective Approvers

Rule Service Name: ApproverDeterminationByPlantService

Input: DisconnectionObject (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Plant	String	Plant Identifier

Output: DisconnectionApprover

ATTRIBUTE	TYPE	DESCRIPTION
Approver_Mail_ID	String	Approver Mail ID
Approver_User_ID	String	Approver User Identifier
Approver_User_Group	String	Approver User Group

Determine Plant Based Approver from External Service

Disconnection process content package have the flexibility to determine approver either via Plant or Connection Object. Based on the step attribute configured in the process variant, it can be either Plant or Connection Object.

Based on the Service on the Service request type for the request approver can be determined either via Business Rules or via External Service. If the Service request type is ZSR approver will be determined by Business rules , for all other cases it should be configured via External Service.

In case of approver determined via plant for any service other than ZSR, external service should be configured with following details

API Attributes	Values
Path	/http/DeEnergization/comsapcontentPlantApprover
HTTP Method	POST
Payload sent by workflow (sample data)	<pre>{ "Vocabulary": [{ "DenergizationRequest": { "RequestType": "ZSR", "Plant": "1000" } }] }</pre>
Response Payload from integration flow	<pre>{ "Result": [{ "PlantBasedApprover": { "MailID": "abc@email.com", "UnitOfTime": <"H" OR "m" OR "Y" OR "M" OR "D">, "UserID": <User Id>, "Duration": , "UserGroup" : <User Group> } }] }</pre> <p>Note: When Status is not 200, then it is considered a failed service call.</p>
Payload Type	Application / JSON

Determine Connection Object Based Approver from External Service

Disconnection process content package have the flexibility to determine approver either via Plant or Connection Object. Based on the step attribute configured in the process variant, it can either Plant or Connection Object.

Based on the Service on the Service request type for the request approver can be determined either via Business Rules or via External Service. If the Service request type is ZSR approver will be determined by Business rules ,for all other cases it should be configured via External Service. In case of approver determined via Connection Object for any service other than ZSR, external service should be configured with following details.

API Attributes	Values
Path	/http/DeEnergization/comsapcontentConObjApprover
HTTP Method	POST
Payload sent by workflow (sample data)	<pre>{ "Vocabulary": [{ "DenergizationRequest": { "RequestType": "ZSR", "ConnectionObject": "1000000077" } }] }</pre>
Response Payload from integration flow	<pre>{ "Result": [{ "ConnectionObjectBasedApprover": { "MailID": "abc@email.com", "UnitOfTime": < "H" OR "m" OR "Y" OR "M" OR "D" >, "UserID": <User Id>, "Duration": , </pre>

	<pre> "UserGroup" : <User Group> } }] } </pre> <p>Note: When Status is not 200, then it is considered a failed service call.</p>
Payload Type	Application / JSON

Process Visibility

Process Visibility capability in SAP Build Process Automation or SAP Workflow Management enables Process Owners and Process Operators to gain real time visibility on processes and key process performance indicators. It also enables customers gain out of the box process visibility into their deployed processes. Please refer [help documentation](#) for more details.

Manage Disconnection Process process content package provide out of the box visibility on all the process variants in SAP Build Process Automation or SAP Workflow Management. utilities expert or line of business expert will be able to enhance the visibility scenario.

Configure Visibility Scenarios in SAP Build Process Automation

1. Go to the Application Development Lobby.
2. Select Disconnection process Project.
3. Click to open **Disconnection process** scenario.
4. Click Activate button.

Please go through the [help documentation](#) on how to configure the visibility scenario.

Configure Visibility Scenarios in SAP Workflow Management

1. Go to Process Visibility Cockpit.
2. Select Disconnection process tile.
3. Click Visibility Scenarios tile.
4. Select **Disconnection process** scenario and click Activate.

Please go through [help documentation](#) on how to configure a visibility scenario.

Access Process Workspace in SAP Build Process Automation

1. The process visibility scenario can be accessed using SAP Launchpad Service. Refer to the help document for [creating UI applications on central SAP Fiori Launchpad](#) for SAP Build Process Automation.

2. Once you have added the applications process Visibility Scenario Instances (with app ID com.sap.spa.pv.instances) and Visibility Scenario Dashboard (with app ID com.sap.spa.pv.ovp), follow the below steps to add a tile to access the Disconnection process dashboard.

- a. Navigate into "Visibility Scenario Dashboard".
- b. On the screen that opens, choose Create a Local Copy.
- c. To use custom texts, choose Edit and adapt the texts in the General section.
- d. You can use a custom title, description, and subtitle for the tile.
- e. Choose the Navigation tab.
- f. Under the Intent section, ensure that the value in the Action tab is unique for every application.
- g. Under the Parameters section, provide the following:

Parameter Name	Parameter Value
Name	scenariold
Default Value	com.sap.content.Disconnection_Process
Required	Toggle to Yes

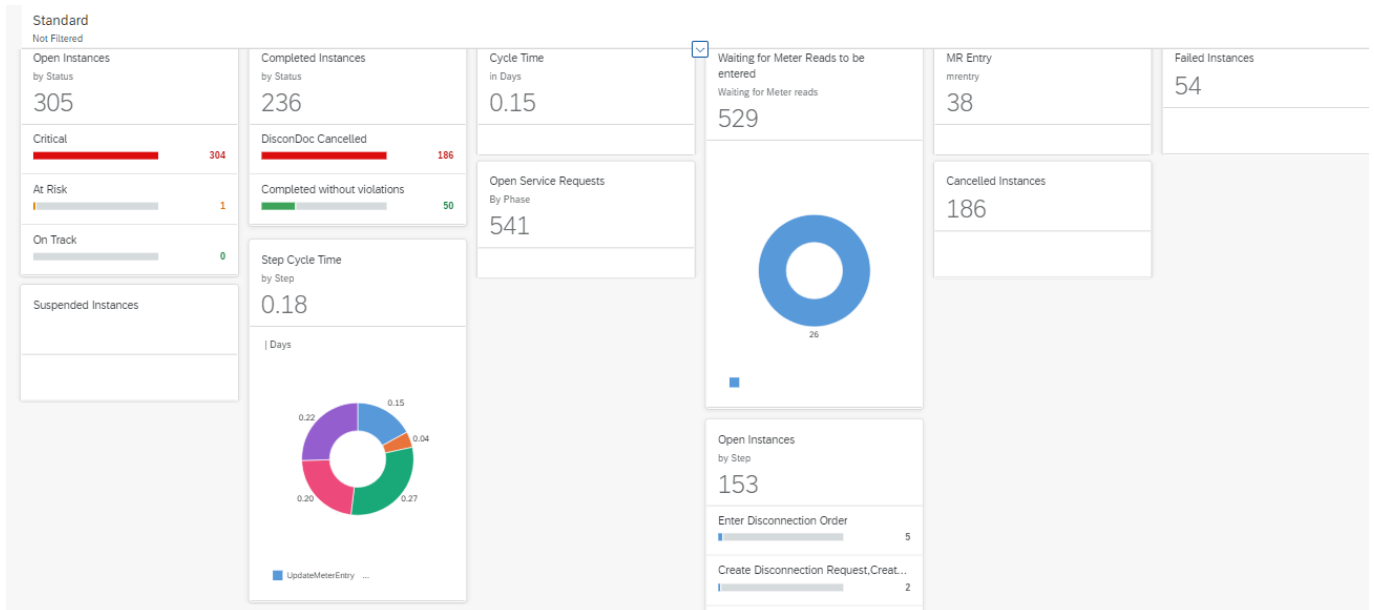
- h. Choose Save.
- i. Assign the local copy to a group and make sure that they're visible to users. For more information, see [Assign Apps to a Group and to a Catalog](#) and [Assign Content to a Role](#).

3. Once created, select app that corresponds to "Disconnection process".

4. User will see the process visibility dashboard below.

Access Process Workspace in SAP Workflow Management

1. Go to Process Flexibility Cockpit
2. Select **Disconnection Process**
3. Click Live Process Insights
4. User will see the below detailed process visibility dashboard.



Please go through [help documentation](#) on how to access process workspace.

SAP ISU Configuration

Disconnection order

- Define Service Objects-

In this IMG activity you define service objects. You also specify the parameters that are automatically transferred into the order. The following data can be specified in accordance with the plant, service object and service object ID:

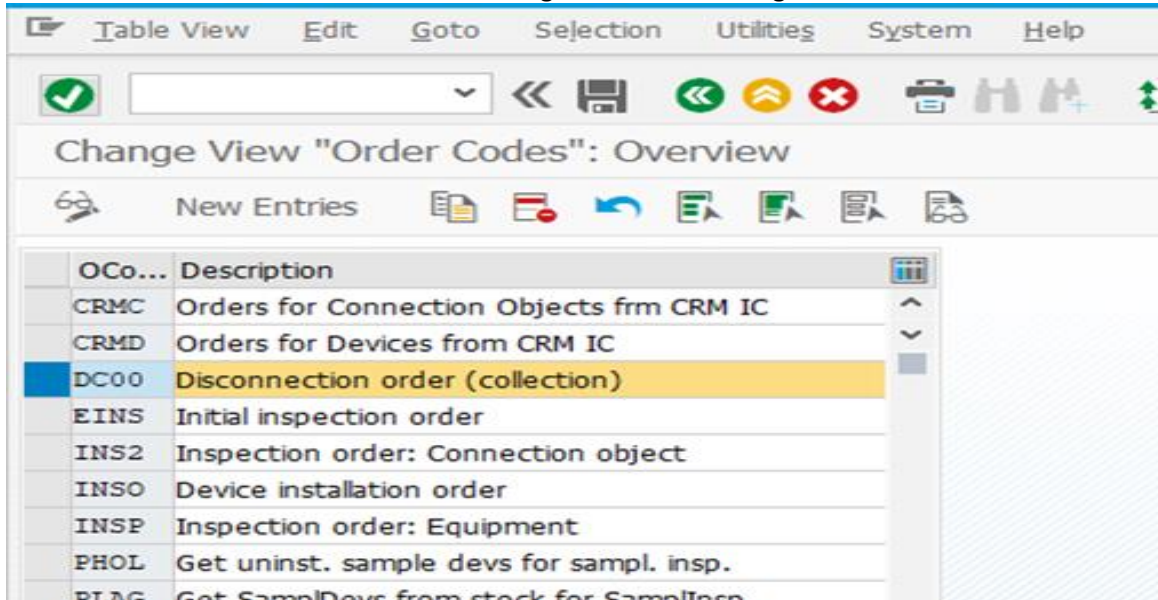
SAP Path - *SPRO – SAP Utilities – Work Management – Master data – Define service objects*

PIPI	ID	Service object
1000	00	DISCONNECTICION
1000	00	RECONNECTION
1000	01	1
1000	04	DISCONNECTICION
1000	04	RECONNECTION

- Define Order Codes-

The table below contains all the order codes supplied by SAP and the reference object type that you have to use in the respective service object.

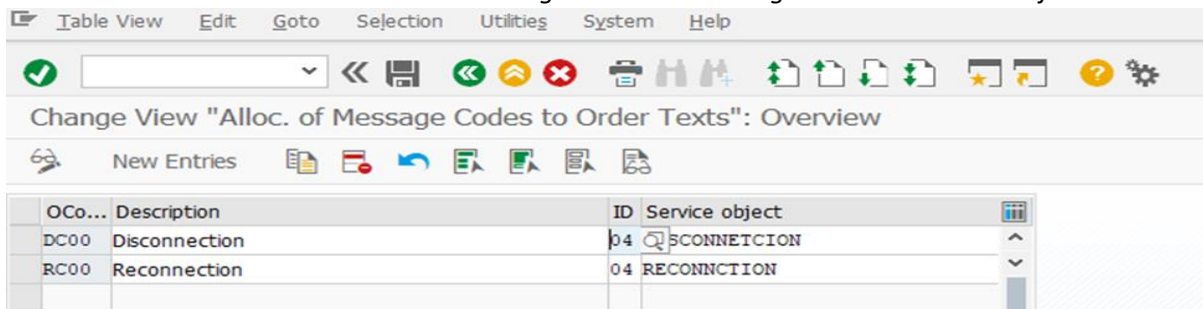
SAP Path - SPRO – SAP Utilities – Work Management – Processing – Define Oder Codes.



- Service Objects to Order Codes

In this IMG activity you allocate service objects to [order codes](#). The service object contains all settings, such as order type and work center, which are automatically transferred into the work order.

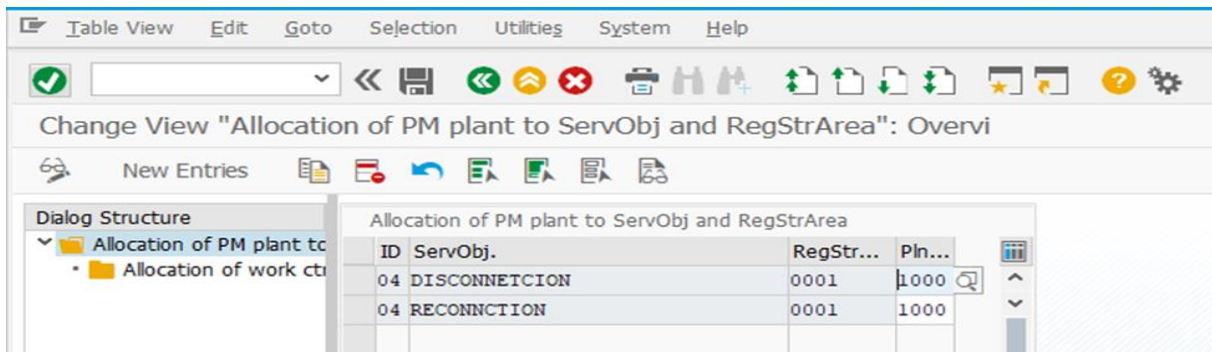
SAP Path - SPRO – SAP Utilities – Work Management – Processing – Allocate Service Objects to Order Codes.



- Plant and Work Center Determination for Orders

In this IMG activity you allocate [PM planning plants](#) to [service objects](#) und [regional structure areas](#). The PM planning plants are determined later in work order generation from the order code (service object and its ID)

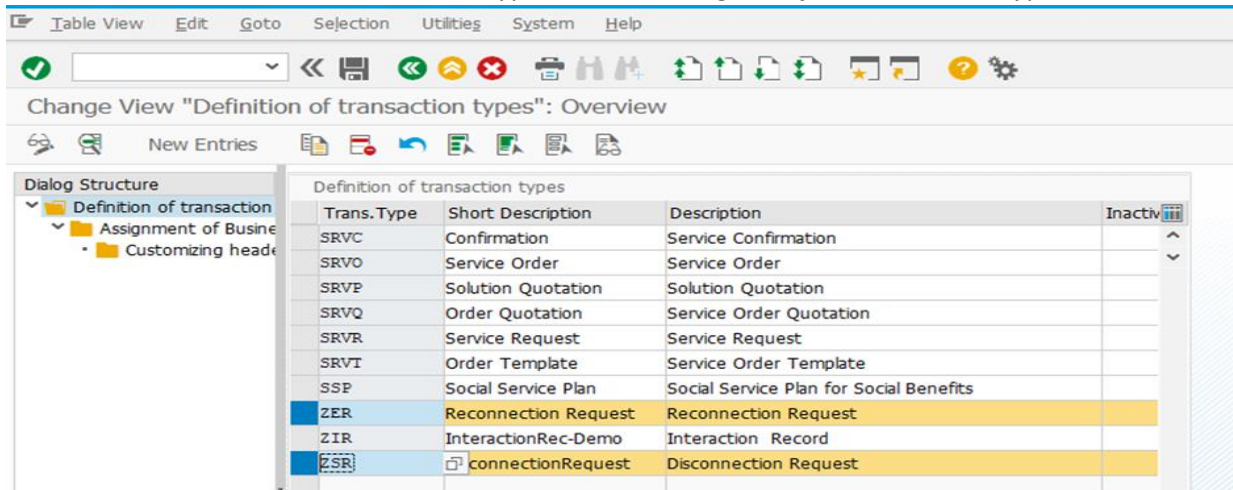
SAP Path - SPRO – SAP Utilities – Work Management – Processing – Define Plant and Work Center Determination for Orders



- Define service request Type –

A transaction type defines the attributes and characteristics of a business transaction (for example, service order) and the controlling attributes (for example, text determination procedure, partner determination procedure, status profile, organizational data profile). A transaction type controls how a specific business transaction is processed.

SAP Path - SPRO – Service – Transaction Types – Basic settings – Define Transaction Types



Note – Copy standard transaction type SRVR to ZSR – disconnection process.