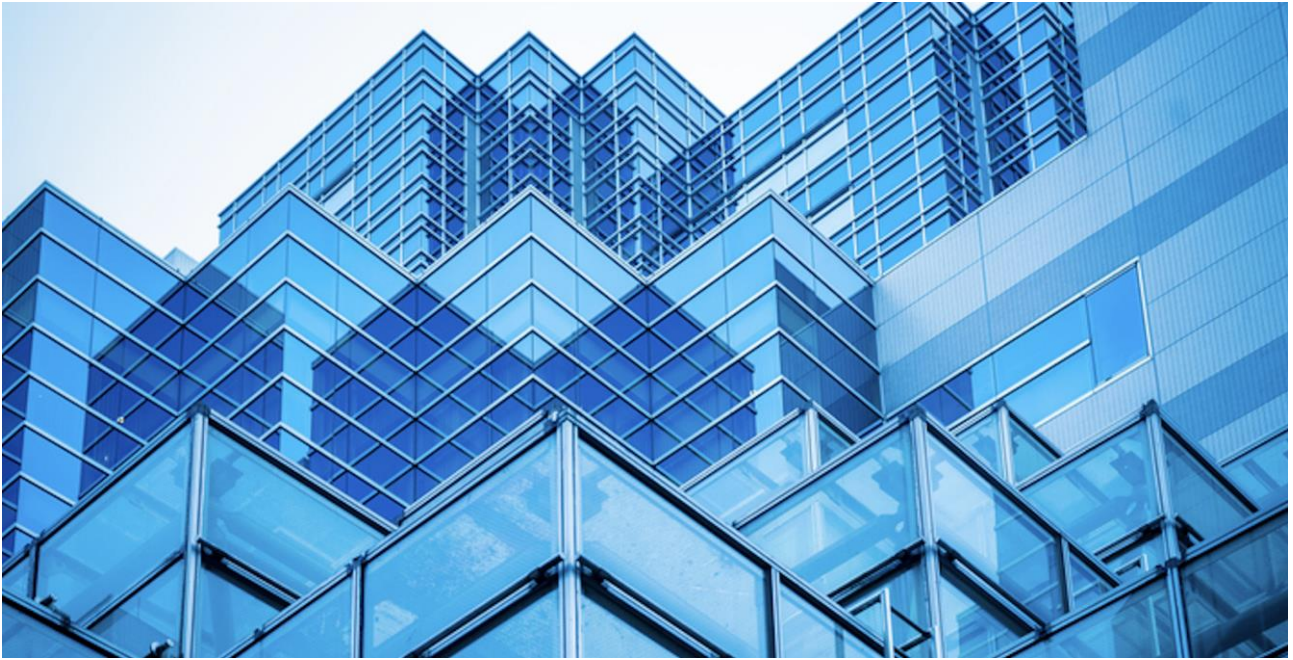




PUBLIC

SAP Build Process Automation

Assignment of Materials to Network Activity

Configuration and User Guide

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This document contains 3 sections. Each section covers different information about this template content package.

1. **Overview:** In this section, you will get quick overview of the use case, what are high-level components used and how the template works in nutshell. Prerequisite section provides information of different services of SAP BTP that are required to use this template.
2. **Configuration Guide:** It contains sections which will guide you to setup your (a) *SAP BTP Account* with destination, cloud connector, user roles etc. (b) Import and configure the template *using SAP Build Process Automation* design studio and (c) *SAP Work Zone* to access the My Inbox or Task Center and other applications.
3. **User Guide:** This section provides details about different artefacts that are used in this template like process definition, decision diagram, action project details, forms, email notifications etc. to better understand how different capabilities are used in this template.

Note: Learning contents are published only for demo and reference purposes. We do not provide any support to learning / sample content.

Note: This documentation is not a detailed guide to setup SAP BTP services. It assumes that IT admin who is setting the content is skilled with SAP BTP environment. **Configuration section must be followed.**

Note: This template content is to accelerate your solution development. You must modify this template according to your requirements to achieve the desired business goal. To use this template content, you need to have basic knowledge and understanding of SAP Build Process Automation, SAP Integration Suite, and its capabilities.

Overview

This document provides technical information about what needs to be configured to make the package – Assignment of Materials to Network Activity process setup and run. The main audience of this document are technical IT/system administrators.

Manually assigning materials to each Network-Activity under the PS Project is a time-consuming and repetitive task, creating a dependency on a custom solution and causing delays in the project planning process.

This package overcomes these challenges and ensures that materials are assigned to network activity in Project Systems (PS) module of SAP S/4HANA Private Cloud / On-premises 2023 release system. For the input excel template provided with all the necessary data after processing it will generate a log file and store the same under a designated log folder under the folder containing the input file and it sends the log file in email to the user.

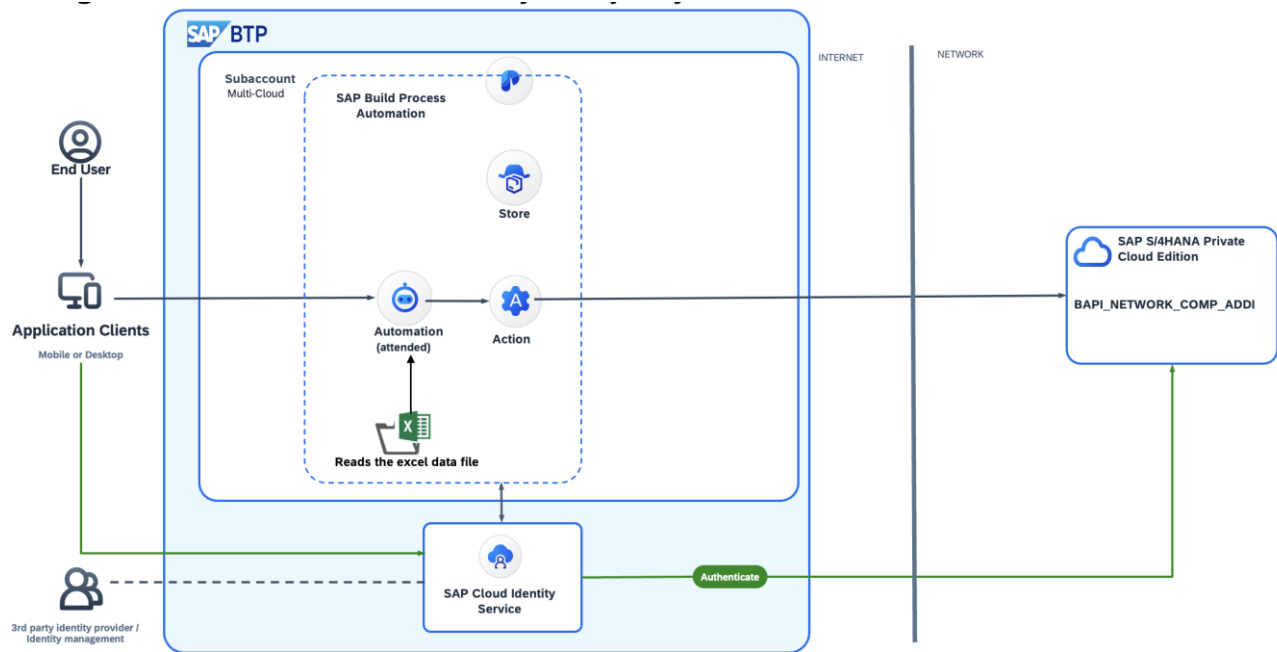
Features

- Reads data from Excel and import into SAP S/4 HANA system
- Validation of transaction and master data as well as validation of missing mandatory field and duplication check.
- Detailed log/report is sent to person in-charge person on success and error data.
- Supports connection with SAP S/4 HANA Private Cloud / On-premises 2023 system using both basic and SSO logon features.
- User friendly and familiar user task (input dialogue) to select preconfigured SAP S/4HANA systems

in SAP GUI logon pad. (No additional system setting is required). Relevant fields in the user tasks persisted to prevent multiple data entry while execution.

- Options to configure / remove mandatory fields using the configuration JSON file.
- Efficient performance as all items belonging to same network are committed at once.

Process Flow Diagram



Solution Flow

1. Launch the desktop agent, make sure the attended mode is active and activate the latest version of the project.
2. Start the automation by clicking on start button.
3. User task will appear. Fill the required details. You can select the relevant S/4 HANA Private Cloud / On-prem system configured in your SAP GUI logon pad. Please note that, if your SAP system is SSO enabled, you don't need to enter username and password.
4. The automation will read the populated excel file and begin processing the records.
5. Upon completion of the execution, a blocking information will appear. It will have the complete path of the generated log file.
6. User will also receive an email notification with the execution summary and the log file as an attachment.

Prerequisites

The following SAP Business Technology Platform services are required to consume **Assignment of Materials to Network Activity**.

- SAP Work Zone to access the apps that are involved in the process.

- SAP Cloud Identity Services - Identity Authentication (optional).
- SAP Connectivity service
- SAP Build Process Automation to orchestrate and automate the process.
- Microsoft Office Outlook to send email notification along with the log file upon completion of execution.
- Microsoft Office Excel
- SAP Build Process Automation Desktop Agent.
- SAP S/4HANA Private Cloud / On-premises 2023 release with Project Systems (PS) module and availability of BAPI_NETWORK_COMP_ADD.
- Following authorizations in SAP S/4HANA Private cloud system.

Authorization Object	Description	Comments
S_RFC	Authorization Check for RFC Access	The below function modules should be maintained in authorization RFC_FUNCTION_SEARCH, RFC_METADATA_GET, BAPI_NETWORK_COMP_ADD and BAPI_TRANSACTION_COMMIT
C_AFKO_ACT	Activities on network header level	
C_AFKO_AWK	CIM: Plant for order type of order	
C_AFKO_DIS	Network: MRP Group (Plant) and Transaction Type	
S_USER_GRP	User Master Maintenance: User Groups	
PLOG	Personnel Planning	
C_AFVG_TYP	PS: Activity types for network act. and activity elements	
M_BANF_BSA	Document Type in Purchase Requisition	
M_BANF_EKG	Purchasing Group in Purchase Requisition	
M_BANF_WRK	Plant in Purchase Requisition	
M_BANF_BSA	Document Type in Purchase Requisition	

Please note that the specific fields and value information in the above authorization object is defined by your organizations.

Procedure

Assignment of Materials to Network activity in Project systems (PS) module for SAP S/4HANA Private Cloud / On-Premise system 2023 release requires SAP Build Process Automation subscription.

1. Follow the guide to set up SAP Build Process Automation: [Prerequisites | SAP Build Process Automation | Initial Setup](#)

Configuration Guide

Configuration on the local desktop

- Availability of Microsoft Outlook and excel is required.
- SAP Build process automation desktop agent is required. Please follow the [help documentation](#) to setup your desktop agent.

Setup SAP Business Technology Platform Cockpit

User Roles Configuration

- To access this template, the business user will need these roles:

Role Name	Purpose
ProcessAutomationDeveloper	Standard Business User, can model and publish processes.
TaskCenterAdmin	Permission to execute calls to the connector status API and monitor configured destinations and running background jobs.
ProcessAutomationParticipant	To execute (like accessing My Inbox, running the automations, etc.) this content package, you need to have this role assigned to the respective user.
ProcessAutomationAdmin	To perform process admin activities like accessing monitoring applications etc., you need to have this role assigned to the respective user.

For more information, please check followings:

- [SAP Build Process Automation roles](#)

SAP Build Process Automation

In this section only describe the configuration of the artefacts.

Import Content

Standard automation packages released by SAP will be available at the store. To know more about the store visit [SAP Build Process Automation Store](#)

This template can be downloaded from the Store:

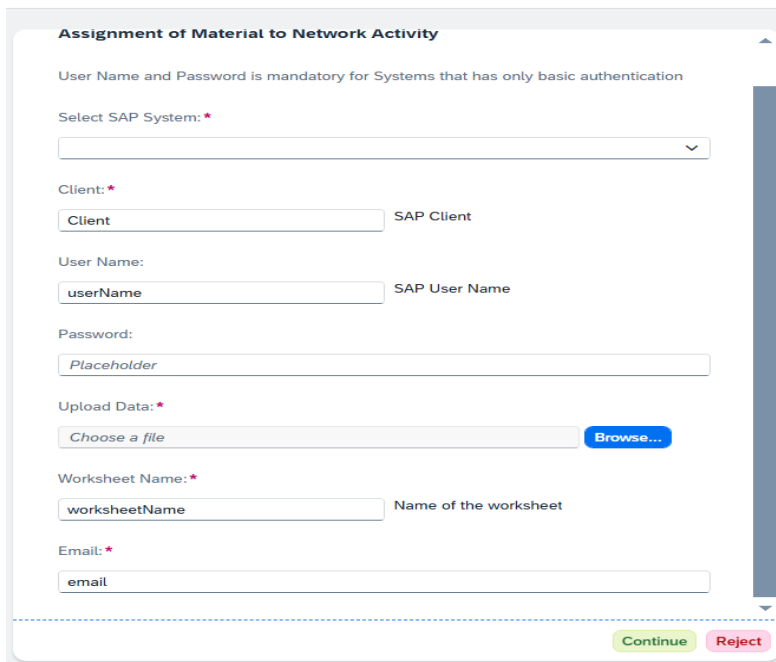
1. Navigate to the Store in your SAP Build Process Automation tenant.
2. Select the Project Type filter as “Business Process.”
3. In the Search bar type “**Assignment of Materials to Network Activity**”
4. Select the “Create from Template” button to add the template into your lobby.
5. After successfully adding the template, navigate back to the lobby to find the “**Assignment of Materials to Network Activity**” template available for use.

Configure Action

Explicit configuration of action is not required for this package. Action group for BAPI: BAPI_NETWORK_COMP_ADD and corresponding data types should be available in the package artifacts.

Configure User Tasks

This package contains one user task for entry of necessary information for the execution of the automation like User credentials, system details, input file and email id to receive the execution summary.



The screenshot shows a web form titled "Assignment of Material to Network Activity". It contains several input fields and buttons. At the top, a note states: "User Name and Password is mandatory for Systems that has only basic authentication". The form fields include: "Select SAP System: *" with a dropdown menu; "Client: *" with a text input field labeled "Client" and a label "SAP Client"; "User Name:" with a text input field labeled "userName" and a label "SAP User Name"; "Password:" with a text input field labeled "Placeholder"; "Upload Data: *" with a text input field labeled "Choose a file" and a blue "Browse..." button; "Worksheet Name: *" with a text input field labeled "worksheetName" and a label "Name of the worksheet"; and "Email: *" with a text input field labeled "email". At the bottom right, there are two buttons: a green "Continue" button and a red "Reject" button.

Configuration File

This template contains a file artifact **configuration.json**. It contains four objects:

- 1) For setting the mandatory fields
- 2) DuplicateCheckColumns
- 3) ValidProcurementTypes
- 4) Column headings for output log.

No specific changes or configurations are required.

MandatoryFields object has column position and field name of the input excel template.
ResultFields object contains the column heading of the log file generated.
DuplicateCheckColumns contains the columns which shall be included in duplication checks
ValidProcurementTypes contains the list of valid and accepted procurement types.

Configure Input File

The input file template can be found in the attachments in the package. Please note that the column sequence must not be changed. If it will be changed, significant changes must be made in validation and input data preparation logic.

Release and Deploy the Process

After configuring your process, it's time to publish, test and run it. To run a process, you must first release and deploy it.

Release - This locks the version of your process, meaning that no further edits can be made to that version. At this stage, the process can't be run and isn't available to participants yet.

To release a version of your process:

First ensure that the status is listed as 'Editable'.

Then click 'Release'.

Assignment of Material to Network Activity Editable

Overview Main Automation - Assig... Perform Validation Setup SAP Connection a... **Release**

Assignment of Material to Network Activity

This automation package is used for mass assignment of materials to network activity in SAP S/4HANA (Project Systems)

Creation **Update** **Bundle Size**

Created On: January 17, 2025 Last Updated On: January 29, 2025 Project Size: 192.06 KB Agent version: Collaborators:

By: You By: You Estimated Package Size: 29.49 KB 3.36

Artifacts (10) Triggers (0) Dependencies (4)

Artifacts Search Artifacts... Create Import

Name	Status	Type	Last Edited On	Last Edited By	Created On
BAPI_NETWORK_COMP_A...	BAPI for Material Components in Network	Action Group	3 days ago		
bAPI_NETWORK_COMP_A...		Data Type	3 days ago		
bAPI_NETWORK_COMP_A...		Data Type	3 days ago		
Configuration.json	The configuration file contains two object - MandatoryFields and ResultFields. The former contain...	File	A day ago		

For more information please visit: [SAP Build Process Automation](#)

Note: If this is the first time you've released the process, a version labelled 1.0.0 is released. For subsequent releases, you're prompted to select a version type before the process is released.

Deploy – This takes a released version of a process, automation and enables it to be actively run and monitored. A deployed version of the project is available in the desktop agent to activate and run. To deploy a released version of your process, first ensure that the status is listed as 'Released', then click '**Deploy**'.

For more details, please refer to the [help documentation](#).

Configure Automation Launcher

Configure the automation launcher as this automation will be triggered in attended mode. For more information, please check [help documentation](#)

Control Tower / Environments / Public

Public

Last Updated: Aug 19, 2023 11:04 PM | Author: 1 member | Identifier: default | Description: This public environment can be accessed by all registered users for this tenant.

Projects | Triggers | **Automation Launchers** | Agent Management | Alert Handlers | Variables | API Keys | Visibility Scenarios | Processes and Workflows

Automation Launchers (10)

Name	Executing	Status	Project & Version	Last Updated	Attributes
Automation Launcher_10		Active			
Automation Launcher_09		Active			
Automation Launcher_08		Active			
Automation Launcher_07		Active			
Automation Launcher_07		Active			
Multiple instances of application		Active			
Attended_05		Active			
Attended_04		Active			
Automate Microsoft Office		Active			
Web Services in automation		Active			

Edit Automation Launcher

Project: **Dev_Assignment of Material to Network Activity**

Name:

Description:

Schedule | Distribution

Date Range:

Time Zone:

Midnight (AM) 12 1 2 3 4 5 6 7 8 9 10 11 12 Noon (PM) 1 2 3 4 5 6 7 8 9 10 11 12

Sun
Mon
Tue
Wed
Thu
Fri

Once this is done, you can run the process from your desktop agent.

User Guide

Capabilities

This template consists of following capabilities.
Please refer [help documentation](#) about these different artifacts.

Type	Name	Description
Automation	Main Automation - Assignment of Materials to Network Activity	Main automation for orchestrating the flow of assignment of materials to network activity in SAP S/4HANA Project Systems
Automation	Perform Validation	Automation to perform validation on the excel input data
Automation	Setup SAP Connection and Call BAPI	Automation for setting up SAP connection and call BAPI and add material to network activity
Automation	Send Email	This automation sends the summary of execution to the designated email id.
Action Group	BAPI_NETWORK_COMP_ADD	BAPI for Material Components in Network
User Task	Logon User Task	User task for setting the system logon data as well as providing necessary information for executing automation.
File	Configuration.json	The configuration file contains two object - MandatoryFields and ResultFields. The former contains all the required fields along with their respective column positions in the input excel file and the later object contains the list of column headings in the log file.
Automation Launcher	Assignment of Material to Network Activity	Launcher for assignment of material to network activity
Data Type	bAPI_NETWORK_COMP_ADD bAPI_NETWORK_COMP_ADD BAPI Input	Generated data type for BAPI input.
Data Type	bAPI_NETWORK_COMP_ADD bAPI_NETWORK_COMP_ADD BAPI Response	Generated data type for BAPI response.

Note: This automation will function according to the system configuration and master data. It is expected that all relevant configuration and master data will be set up in alignment with the business scenario and requirements.

Support

There is no support available for template content. If you experience general issues with SAP Build Process Automation, please follow the links below:

- [Troubleshoot Support Guided Answer](#)
- [Test an Automation Help portal Article](#)
- [Test an Application Help portal Article](#)
- [Get traces Support Guided Answer](#)

If the issue persists, please raise an incident via SAP Support Portal on **BPI-PA-BPC** component.

This template can be modified using SAP Process Automation. For example: add business rules to determine the approver based on a certain business logic or add an action to post collected information to backend SAP system. Refer [Help Portal](#) for more details.