



PUBLIC

SAP Build Process Automation

**Mass Creation of Maintenance Service Orders
Template**
Configuration and User Guide

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Change Log

Version	Date	Description
1.0.0	September 14, 2023	Document Created



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 contain 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 MyInbox 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, forms, email notifications etc. to better understand how different capabilities are used in this template.

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 has to be mandatorily followed to import and configure the template.

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 and its capabilities.

Overview

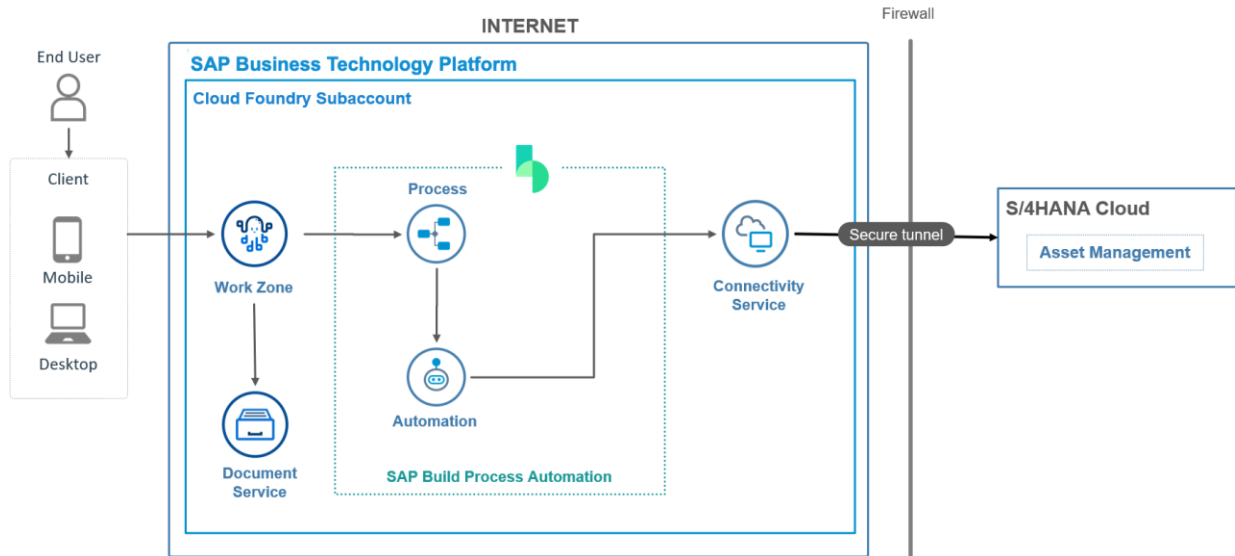
This document provides information about setting up the SAP Business Technology Platform account to consume the SAP Build Process Automation **Mass Creation of Maintenance Service Orders Template**. The main audience of this document are technical IT/system administrators.

Automation facilitates to Create the Maintenance Service Order.

Features:

- The Automation must be able to automatically create the maintenance service orders from the uploaded file in the form
- Automation must be able to automatically generate the log file once the Maintenance Service Order is created.
- The Scheduled Automation will create the maintenance service orders for every excel templates placed in the folder

Process Flow Diagram



Runtime Steps:

1. User accesses a Form on the SAP Build Work Zone Launchpad.
2. In Form, Upload Maintenance Service Order Excel Template and click **"Submit"** Button.
3. Process will trigger and start Automation.
4. Maintenance Service Order mass creation execute via Automation and POST data to SAP S/4 HANA. Execution logs will send via email to the Requestor.

The following steps are included as a part of Mass Creation of Maintenance Service Orders template and provide a brief overview about the process flow & features of Mass Creation of Maintenance Service Order template:

- There are two ways for Mass Creation of Maintenance Service Orders,

1. First one,
 - This package provides form to upload the filled detail excel then the automation will create the Maintenance Service Orders.
 - The Log report will be generated in the name of "**ReportAt_<Timestamp>.xlsx**" placed in the "**MSO Creation Log Files**" folder which can be find in the path which is defined in the key parameters(**DownloadFolderPath**) then notifies the requester through email about the completion with the log report attached to it.
2. Second one,
 - The filled detail Excel should be placed in the folder where you have defined in the key parameters(**BaseFolderPath**)
 - The automation fetches the Excel file placed in the folder where you have defined in the key parameters(**BaseFolderPath**)
 - The Log report will be generated in the name of "**ReportAt_<Timestamp>.xlsx**" placed in the "**MSO Creation Log Files**" folder which can be find in the path which is defined in the key

parameters(**BaseFolderPath**) then notifies the requester through email about the completion with the log report attached to it.

Prerequisites

The following SAP Business Technology Platform services are required to consume the content package. Mass Creation of Maintenance Service Orders Template:

- SAP Build Process Automation to orchestrate the process.
- SAP Cloud Identity Services - Identity Authentication (Optional)
- SAP Connectivity service to establish access to SAP S/4 HANA

Other Prerequisites

For this template to run successfully the following other prerequisites are needed

- SAP Desktop Agent 3.17 or higher
- Outlook mailbox configured on the system where the automations will run in order to send mails with attachments.

Notes:

- This package is designed only to work with the provided folder structure & input template file structures. DO NOT CHANGE any column properties and structure.
- If any changes done in the input template structure, related process & automation implementation also need to be updated to handle those changes
- You can find the input excel template and enter the values then upload in the form or keep it in the path(**BaseFolderPath**) you defined for the execution

- The input excel has 2 sheets 'Field List' and 'Service Orders'.

In the Service Orders sheet, you need to fill the details and the POST call will be executed in S/4HANA for Creation of Maintenance Service Order.

Recipient Email-ID value – you must fill the email address to send the log report.

In Field List sheet, mandatory fields details are updated. Please fill mandatory fields and upload input template. If mandatory fields are not filled, then Automation will throw errors.

Configuration Guide

Mass Creation of Maintenance Service Orders template requires SAP Build Process Automation subscription or CPEA contract. Follow the [setup and configuration section](#)

Setup Business Technology Platform Cockpit

Destination Configuration

Configure Destination to Connect to S/4 HANA Cloud System

Destination Property	Value
Name	<Name>
Type	HTTP
URL	<S/4HANA endpoint> Example: https://<s4system-name>-api.xxxxxxxx
Proxy Type	Internet
Authentication	Basic Authentication
Username	<Username> of the S/4HANA Communication User
Password	<Password> of the S/4HANA Communication User

Note: For SAP S/4HANA Cloud and on-premise, the API should be accessible over internet proxy type, as iRPA Automation does not support on-premise as proxy type as explained in the [SAP Note](#).

Note: Add the following additional properties to the destination

Destination Additional Property	Value
HTML5.DynamicDestination	True
sap.applicationdevelopment.actions.enabled	True
sap.processautomation.enabled	True

Destination Configuration

Name:	S4HANA	Additional Properties	
Type:	HTTP	HTML5.Dynami...	true
Description:	S/4 Hana System	sap.application...	true
URL:	[Redacted]	sap.processaut...	true
Proxy Type:	Internet	TrustAll	true
Authentication:	BasicAuthentication		
User:	[Redacted]		
Password:	[Redacted]		

User Roles Configuration:

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

Role Name	Purpose
Process Automation Developer	To fully use this content package, you need to have an active user entitled to this role to use SAP Build Process Automation

For more information about SAP Build Process Automation roles, see [Authorizations](#)

Setup Communication

To run this template, you must have a communication user, create communication arrangements between the communication user and the following communication scenarios, and assign those communication arrangements to a communication system.

Steps to Create Communication System and Communication Arrangement are available in below documentation links:

[How to Create Communication Systems | SAP Help Portal](#)

[How to Create a Communication Arrangement | SAP Help Portal](#)

[Configuration and Role Details for accessing "Communication Systems" application.](#)

[Configuration and Role Details for accessing "Communication Arrangements" application.](#)

List of communication scenarios to be configured

Communication Scenario	Related API
Service Order OData Integration(SAP_COM_0350) Service - Repair Order Integration(SAP_COM_0742)	Overview Service Order (A2X) SAP Business Accelerator Hub

Communication Scenario	Related API
An additional communication scenario assigned with custom inbound services	You need to create custom CDS views in your SAP S/4HANA Cloud system, expose them as external APIs, and then create a communication scenario and add these inbound services to this scenario. For details, see next section.

Setup Build Process Automation:

Standard automation packages released by SAP will be available at the [SAP Build Store](#)

Import Content

This template can be downloaded from the Store:

1. Navigate to the Store in your SAP Build Process Automation account.
2. Select the Project Type filter as “process automation”
3. In the Search bar type “**Mass Creation of Maintenance Service Orders**”
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 “Mass Creation of Maintenance Service Orders” template available for use.

Configuration & Modification

Once you have added the content to your lobby, you will find the project in your project list. Adapt the content template based on your requirements, and then release and deploy from the Lobby. In case any enhancement needs to do then follow the below reference links.

Create an Automation

<https://help.sap.com/docs/build-process-automation/sap-build-process-automation/create-automation-process-automation>

Create a Business Process

<https://help.sap.com/docs/build-process-automation/sap-build-process-automation/create-business-process>

Create a Forms

<https://help.sap.com/docs/build-process-automation/sap-build-process-automation/create-form>

Create a Datatype

<https://help.sap.com/docs/build-process-automation/sap-build-process-automation/create-data-type-process-automation>

Release and Deploy the Process

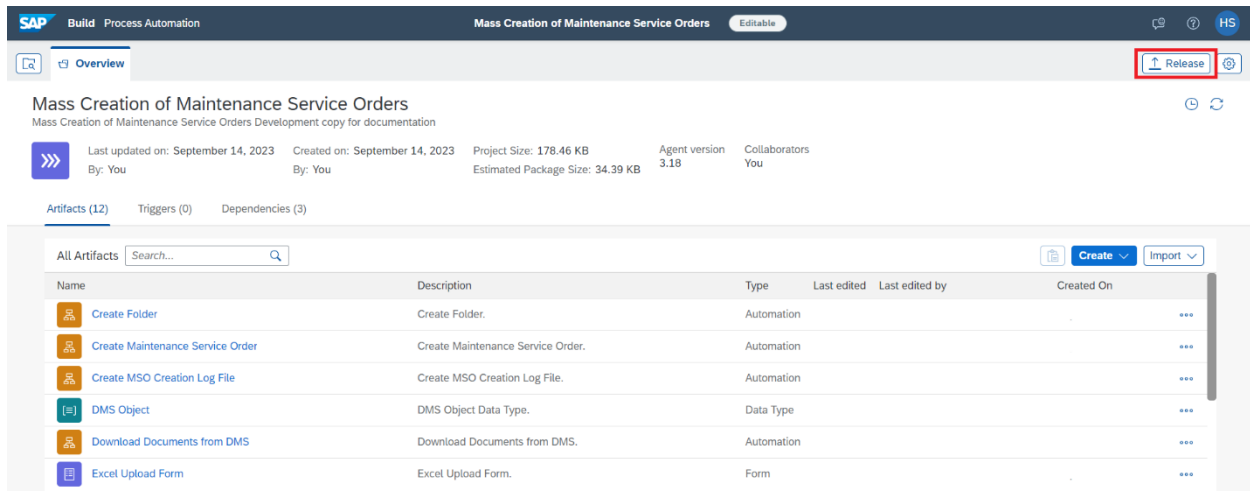
After configuring your process, it's time to publish, test and run it. To run a process, you must first release and deploy it.

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'



The screenshot shows the SAP Build Process Automation interface for a process named "Mass Creation of Maintenance Service Orders". The process is currently in an "Editable" state. A red box highlights the "Release" button in the top right corner. Below the process name, there are details such as "Last updated on: September 14, 2023", "Created on: September 14, 2023", "Project Size: 178.46 KB", "Agent version: 3.18", and "Collaborators: You". A table of artifacts is displayed below, with columns for Name, Description, Type, Last edited, Last edited by, and Created On. The artifacts listed are: Create Folder (Automation), Create Maintenance Service Order (Automation), Create MSO Creation Log File (Automation), DMS Object (Data Type), Download Documents from DMS (Automation), and Excel Upload Form (Form).

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 and enables it to be actively run and monitored. A deployed version of this approval process unlocks the request form, allowing participants to submit requests and the approvers to view items in their inbox.

To deploy a released version of your process,

- First ensure that the status is listed as 'Released'.
- Then click "Deploy"

To deploy your project, you will be prompted to provide a Destination as an environment variable. Select the destination from the drop-down. Note: If you do not map your destination environment variable with actual SAP BTP destination during deployment, then the process will enter Erroneous state when it tries to connect to the external system.

Mass Creation of Maintenance Service Orders Released

Mass Creation of Maintenance Service Orders Development copy for documentation

Last updated on: September 14, 2023 By: You | Created on: September 14, 2023 By: You | Project Size: 188.54 KB | Agent version: 3.18 | Collaborators: You

Artifacts (12) | Triggers (0) | Dependencies (3)

Name	Description	Type
Create Folder	Create Folder.	Automation
Create Maintenance Service Order	Create Maintenance Service Order.	Automation
Create MSO Creation Log File	Create MSO Creation Log File.	Automation
DMS Object	DMS Object Data Type.	Data Type
Download Documents from DMS	Download Documents from DMS.	Automation
Excel Upload Form	Excel Upload Form.	Form





For more details about the Destination artefact, please read our [documentation](#).

User Guide

Capabilities

The following are the capabilities of this automation template:

Icon	Type	Name	Description
	Automation	Create Folder	Automation to Create Folder
	Automation	Create Maintenance Service Order	Create Maintenance Service Order
	Automation	Create MSO Creation Log File	Create MSO Creation Log File
	Automation	Download Documents from DMS	Download Documents from DMS
	Automation	Get Folder Content from DMS	Get Folder Content from DMS
	Automation	Mass Creation of Maintenance Service Orders	Mass Creation of Maintenance Service Orders
	Automation	Process DMS Document and Create Maintenance Service Orders	Process DMS Document and Create Maintenance Service Orders
	Automation	Read Excel Data	Read Excel Data

	Automation	Send MSO Log Report to Requestor	Send MSO Log Report to Requestor
	Process	Process DMS Document and Create Maintenance Service Orders	Process the uploaded Document in Document Management Service and Create Maintenance Service Orders
	Form	Excel Upload Form	Excel Upload Form
	Data type	DMS Object	DMS Object Data Type

This content package will enable SAP ERP customers to automate the creation of Maintenance Service Orders in SAP S/4HANA System. The purpose of this technical specification is to outline the process and requirements for creating the service orders. This specification also includes the necessary table and field mappings within SAP, as well as the latest API to be used to create Mass Maintenance Service Orders. Automation will be triggered once the user uploads the excel template at the start UI.

Automation

Process DMS Document and Create Maintenance Service Orders

This Automation will Process the Uploaded Document in the form from the Document management Service and will create the Maintenance Service Orders

API	API Path	Purpose
API_SERVICE_ORDER_SRV	/sap/opu/odata/sap/API_SERVICE_ORDER_SRV/A_Service Order	POST API to create the Maintenance Service Orders

Mass Creation of Maintenance Service Orders

This Automation will create mass Maintenance Service Orders for all the excel template files which has been placed in the base folder.

API	API Path	Purpose
API_SERVICE_ORDER_SRV	/sap/opu/odata/sap/API_SERVICE_ORDER_SRV/A_Service Order	POST API to create the Maintenance Service Orders

Process

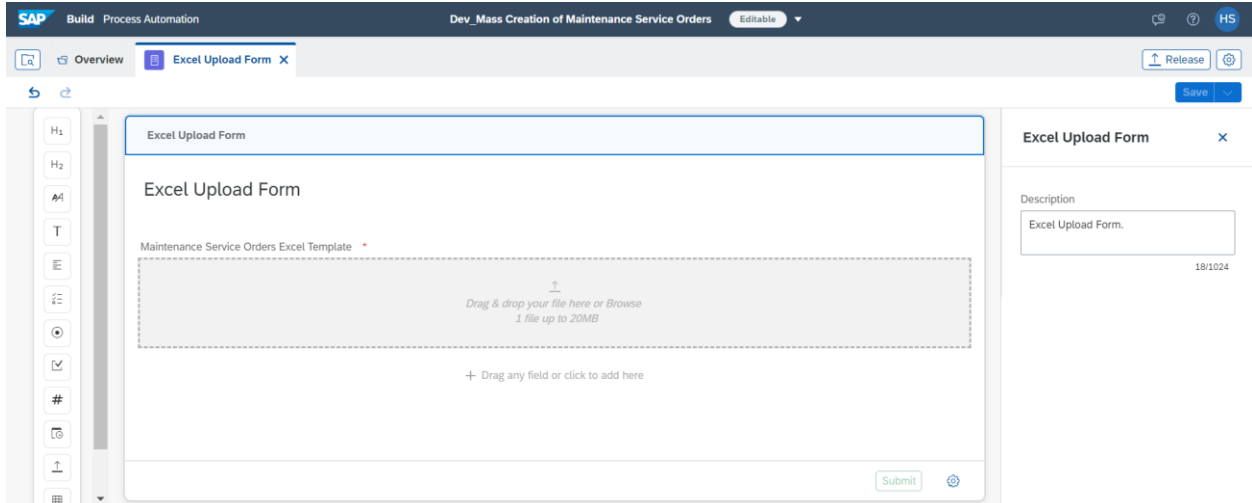
Process to Create Maintenance Service Orders

This Process will get the file from the “Excel Upload Form” and then it Process the Uploaded Document in the form from the Document management Service and will create the Maintenance Service Orders

Form

Excel Upload Form

This form will allow the user to upload Maintenance Service Order Excel template.



Key Parameters used in the Automation:

BaseFolderPath: Base Folder Path where all files are placed.

DownloadFolderPath: Path where the downloaded files from SAP Document Management Service are placed.

S4_Destination: Destination to connect to S/4 HANA System

DMS_Destination: Destination to connect to SAP Document Management Service

AdministratorEmailId: Email Id of the Administrator

BaseFolderPath:

DownloadFolderPath:

DMS_Destination:

AdministratorEmailId:

S4_Destination:

Output:

	A	B	C	D
1	Service Order Number	Response Status	Response Message	
2	8000000093	201	Created	
3				
4				
5				
6				

Support

There is no support available for template content. If you experience general issues with SAP Build Process Automation, 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.

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