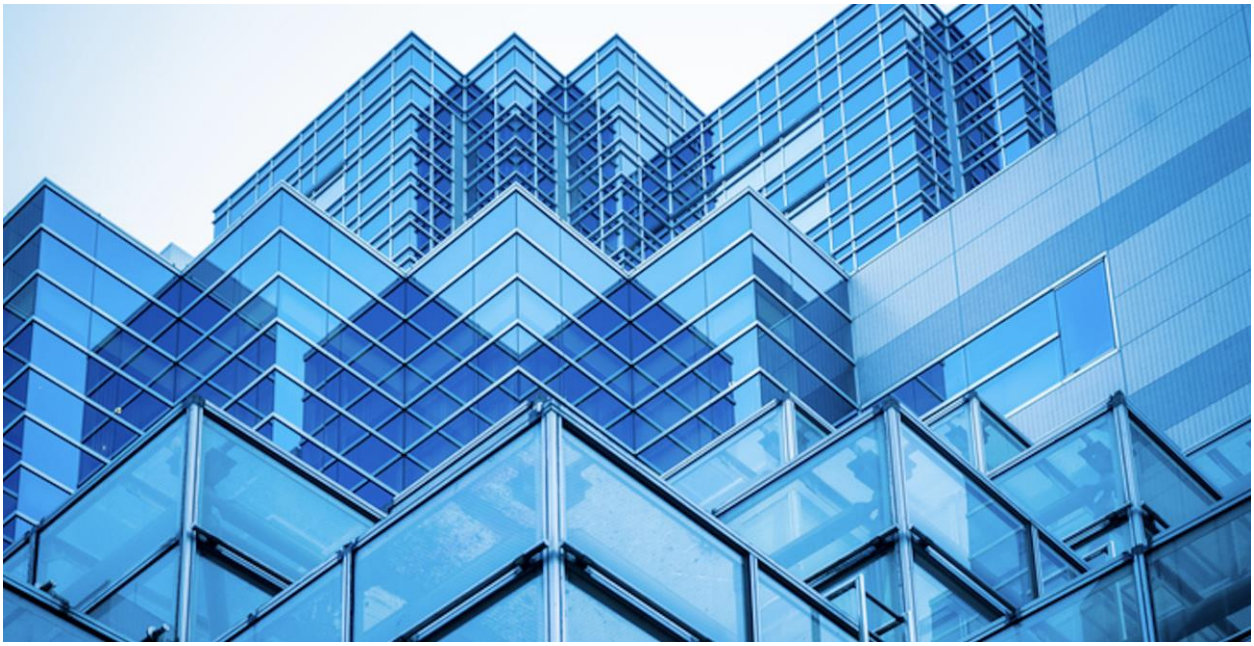


PUBLIC

SAP Build Process Automation

Automate Mass Upload of GL Journal Entries
Configuration and User Guide

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Change Log

Version	Date	Description
1.0.0	November 1, 2023	Document Created

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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 all high-level components used and how the template works in nutshell. Prerequisite section provides information of different services of SAP Business Technology Platform (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 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, forms, email notifications etc. to better understand how different capabilities are used in this template.

Notes:

- 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 mandatorily followed to import and configure the template.
- 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 **Automate Mass Upload of GL Journal Entries Template.** The main audience of this document are technical IT/system administrators.

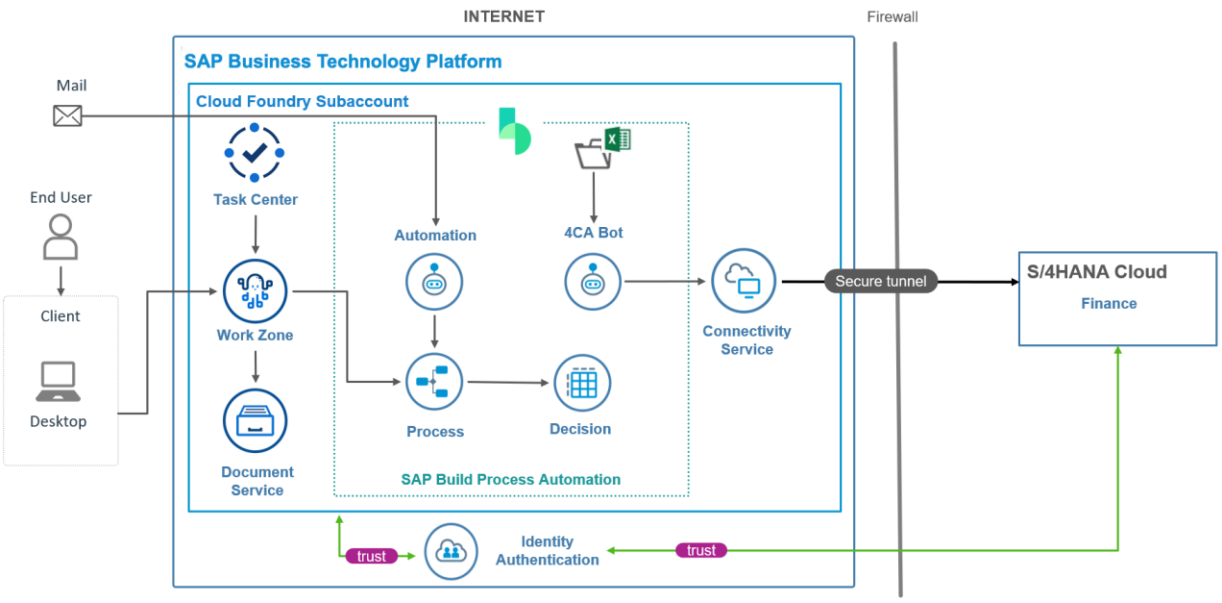
Automation facilitates the Automate Mass Upload of GL Journal Entries.

Features:

- This package will automatically get the excel template from Outlook email based on email subject and file name or from predefined folder.
- Segregates the excel data based on company code and accounting document type grouping fields and prepares separate excels.
- Sends the prepared excels for approval if approval is required.
- Approver will be determined and notified for the approval.
- Automation sends the email with prepared excel to user once approver approves the task.
- Finally, excel files needed to be available in 4CA's ToBeProcessed folder to be processed by 4CA bot for mass upload of journal entries.

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Process Flow Diagram



Steps:

1. Get the excel file from outlook email or from predefined folder.
2. Read the excel and segregate the data into different excels.
3. Checks if approval needed for excel based on company code and accounting document type grouping field.
4. Approver determined from decision table and approver will receive a task UI for approving the changes.
5. Once tasks are approved, Master Template 4CA generated excel file is sent with the approver comments to user or requestor.
6. Generated excel file will be available in 4CA bot ToBeProcessed folder after task is approved.
7. Finally, 4CA bot needs to be executed to create mass upload of journal entries.

Prerequisites

The following SAP Business Technology Platform services are required to consume the content package. Mass Fixed Asset Acquisition Creation:

- SAP Build Process Automation to orchestrate the process.
- SAP Cloud Identity Services - Identity Authentication (Optional)
- SAP Connectivity service to establish access to SAP S/4HANA, Public Edition
- SAP Business Technology Platform, Cloud Foundry runtime
- SAP Work Zone, standard or advanced edition for accessing My Inbox and Process Visibility workspaces.

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- SAP Document Management Service, Integration options

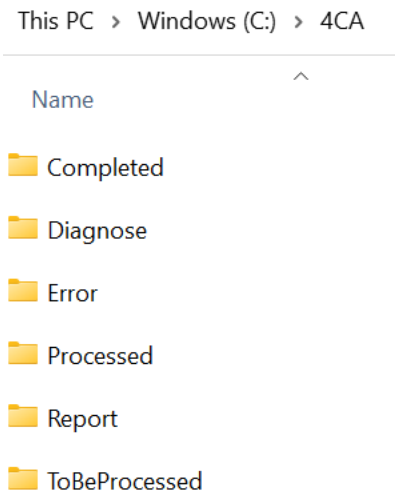
Other Prerequisites

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

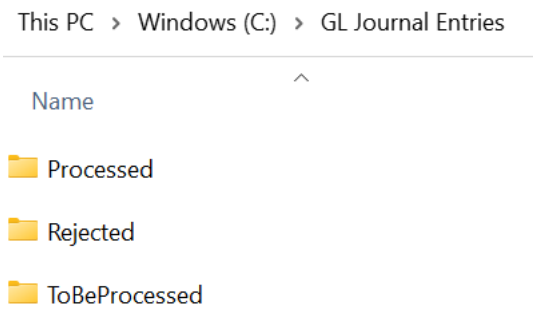
- SAP Desktop Agent 3.17 or higher
- Outlook mailbox configured on the system where the automations will run to send mails with attachments.
- Notifier or Requestor email id should need to be maintained in **Field List** worksheet inside **Master Template - 4CA.xlsm (**This is the input excel template file provided with this package).
- ToBeProcessed and Processed folders needs to be there as subfolders inside outlook inbox folder.
- Use the date format for all date fields in excel file as MM/DD/YYYY format.

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 decide the folder by the key parameters where the input template should be placed.
    1. **BaseFolderPath4CABot**: provide base folder path of 4CA bot where all excel will be stored and will be processed by 4CA bot.
    2. **DMSFolderPath**: Document Management Service root folder path where all new folders and files are created.
    3. **EmailFolderProcessed**: folder name where processed emails will be moved after execution. This should be created inside Inbox folder in Outlook as subfolder.
    4. **EmailFolderToBeProcessed**: folder name from where emails will be picked for execution. This should be created inside Inbox folder in Outlook as subfolder.
    5. **JournalEntriesExcelBaseFolderPath**: base folder path of journal entries bot where all processed files will be stored.
- Following folder structure needs to be maintained for GL Journal Entries and 4CA bot execution:



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Configuration Guide

Automate Mass Upload of GL Journal Entries template requires SAP Build Process Automation subscription or CPEA contract. Follow the setup and configuration section

Setup Business Technology Platform Cockpit

Configure SAP Document Management Service

In this template, the Input Template document for Automate Mass Upload of GL Journal Entries and any supporting documents can be uploaded in the approval form which are then made available as attachments for review and approval to the respective participants. To upload the document from the form, you will need SAP Document Management Service or equivalent CMIS repository and a corresponding destination in SAP BTP to connect to the repository.

- Follow the instructions to configure SAP Document Management Service for Attachments
- Add service instance and service key (follow this) and repository (follow this) to configure the destination
- Configuring destination, refer Configure SAP Document Management Service Destination

Note: The destination needs to be created with **sap_process_automation_document_store** name.

User Roles Configuration

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

Role Collection 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

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TaskCenterAdmin	Permission to execute calls to the Connector Status API and monitor configured destinations and running background jobs.
ProcessAutomationParticipant	To execute (like accessing MyInbox, 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 application etc., you need to have this role assigned to the respective user.
Business_Application_Studio_Administrator	Allows administrators to manage (export and delete) user data.
Business_Application_Studio_Developer	Allows developers to load and develop applications using SAP Business Application Studio.

For more information about SAP Build Process Automation roles, see Authorizations

Setup Build Process Automation Content

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 “**Automate Mass Upload of GL Journal Entries”**
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 “Automate Mass Upload of GL Journal Entries” template available for use.

Caution: Be sure to select the **Project Type** as “**Process Automation**” in the filters.

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 be made 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

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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 Decision

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

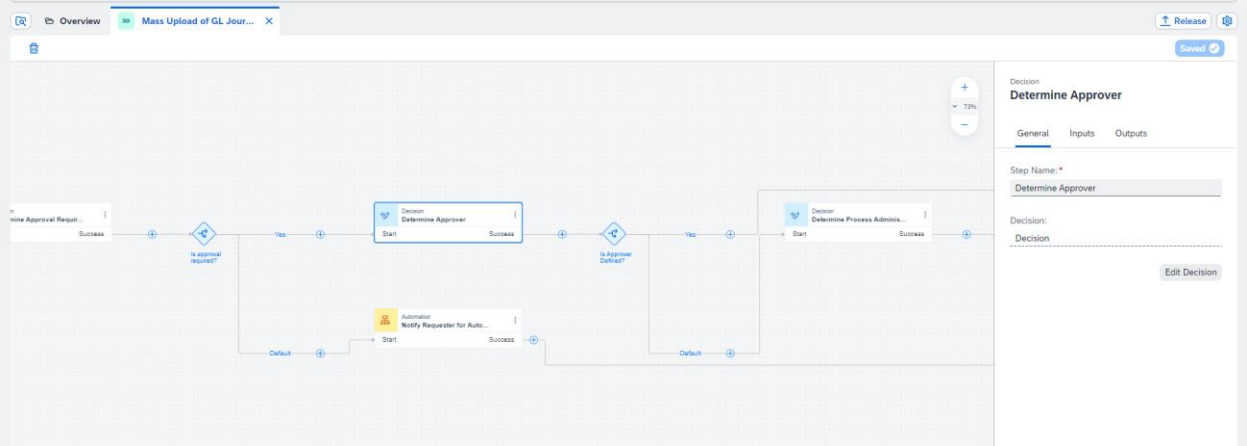
Create a Datatype

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

Configure Decisions

This package includes 3 decisions. We can configure those decisions as per our requirements.

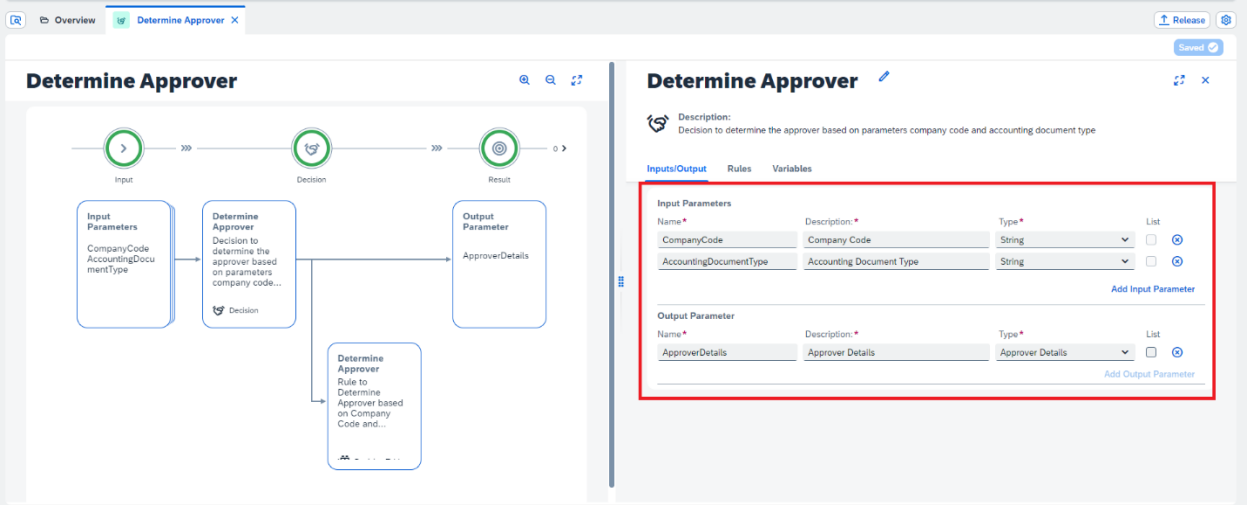
Determine Approver - This decision is used to determine the approver email id, user id, user group based on company code and accounting document type where the approval task for the grouped journal entries will be sent.



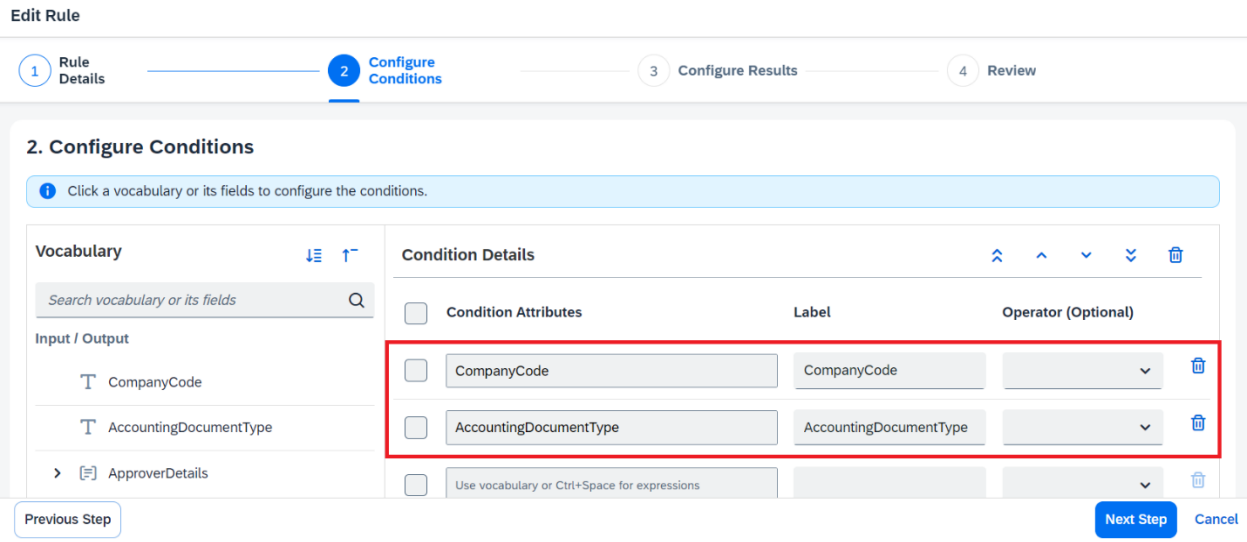
These decisions must be modified for conditions and result values based on your business policies and requirements. To modify the decision:

- In process editor, double click to open the Decision.
- Select the rule from the decision diagram.

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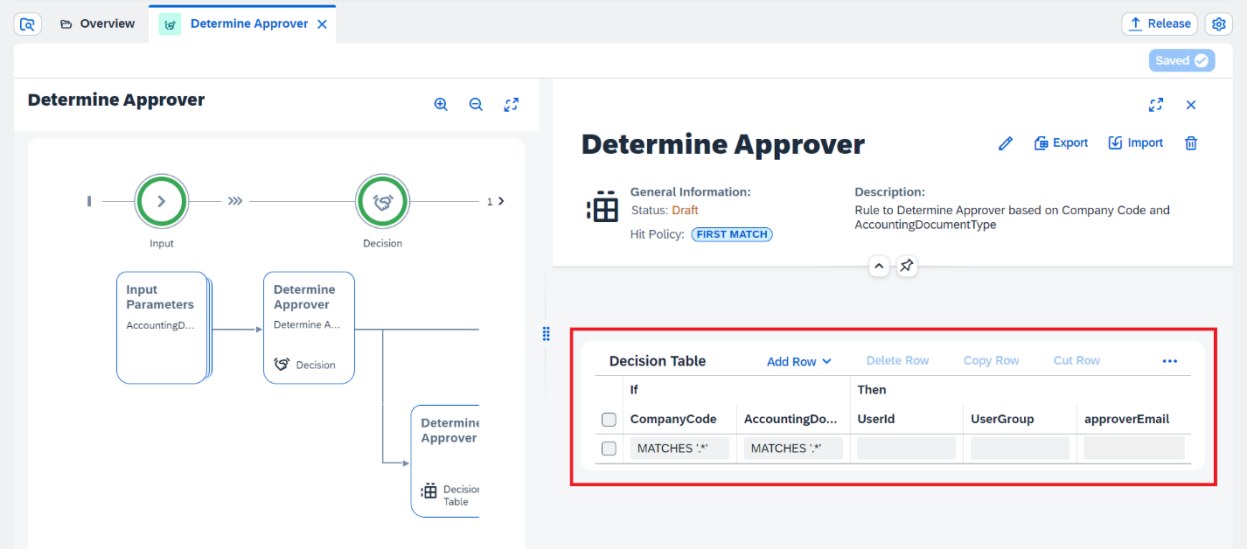


The attributes used in the decision rule can be selected as per requirement.



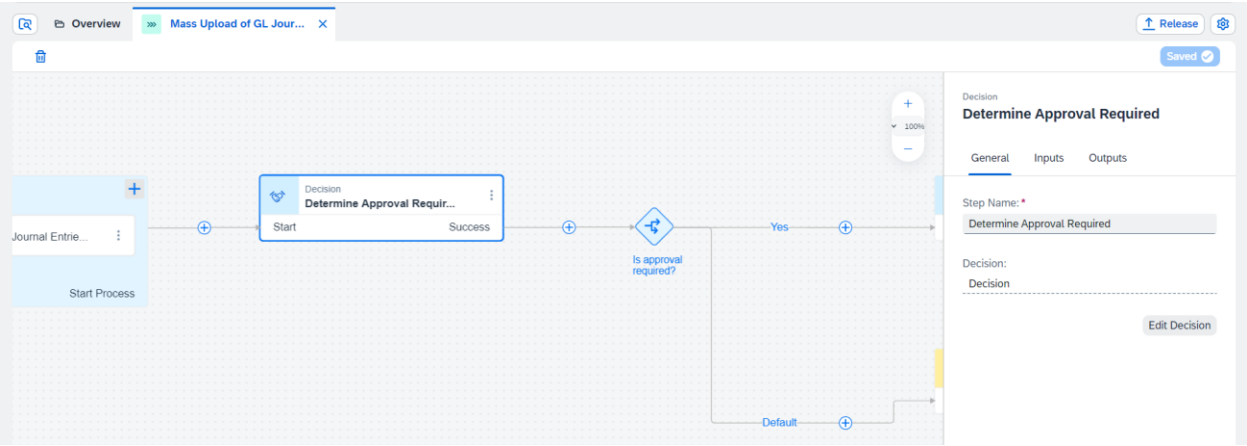
- Edit the rule to add more rows or update existing values.

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Determine Approval Required – This decision is used to determine whether the approval is required or not for mass upload of journal entries. It will group the journal entries and send for the approval if needed else, it will place the excel files into 4CA bot ToBeProcessed folder for the execution.

This decision can be selected from process as shown below:

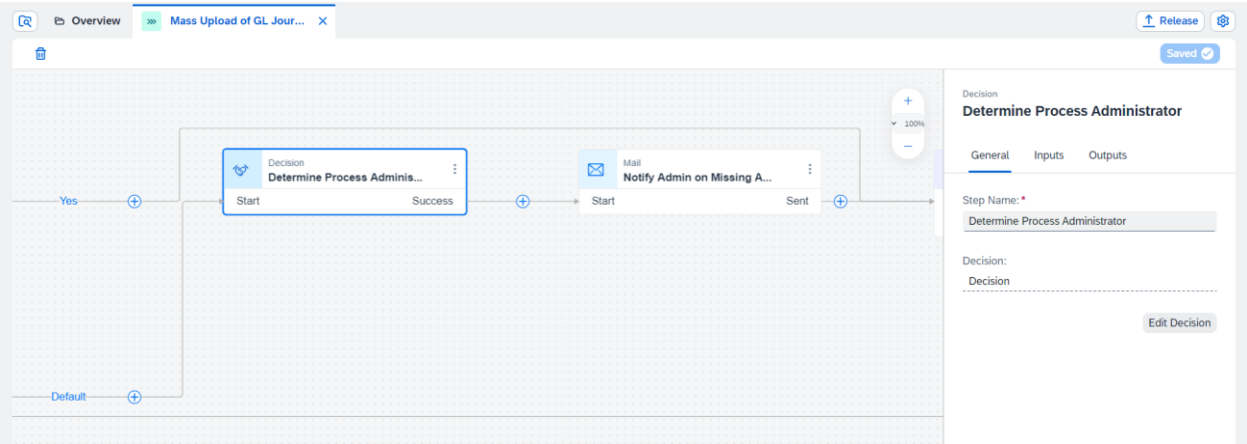


These decisions must be modified for conditions and result values based on your business policies and requirements. To modify this decision, follow similar steps as those mentioned for Decision **Determine Approver**

Determine Process Administrator- This decision is used to determine the admin email id, user id, user group based on company code and accounting document type if approver is not maintained in Determine approver decision.

This decision can be selected from process as shown below:

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These decisions must be modified for conditions and result values based on your business policies and requirements. To modify this decision, follow similar steps as those mentioned for Decision **Determine Approver**

Configure Destination Settings

Actual destinations that are created in SAP BTP cockpit will be required when you deploy the process. This actual destination will be mapped the destination environment variables during deployment.

For this package following destination needs to be configured in the SAP BTP cockpit:

- **sap_process_automation_document_store**

Note: Above destination names have been configured in BTP but can be named as per the project requirement.

To configure destination,

- Click on **Settings.**
- Select **Destinations** from the left panel.
- Click **New Destination**

Select these destinations to be added (Created in the above section). For more information and screen shots, please refer to this link .

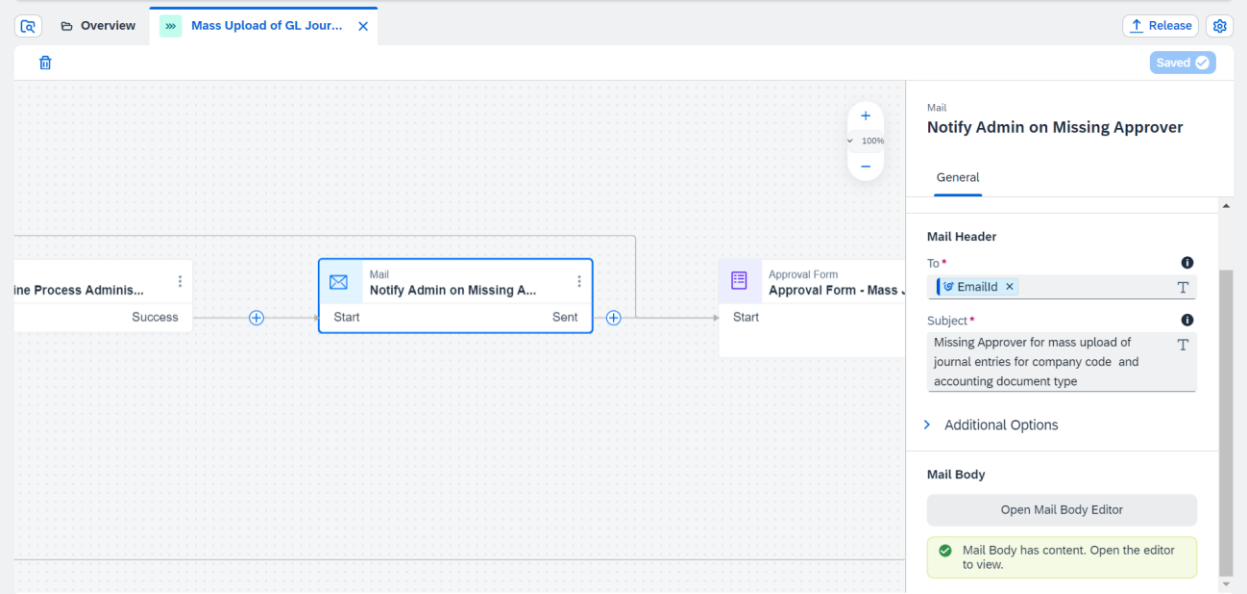
Configure Email

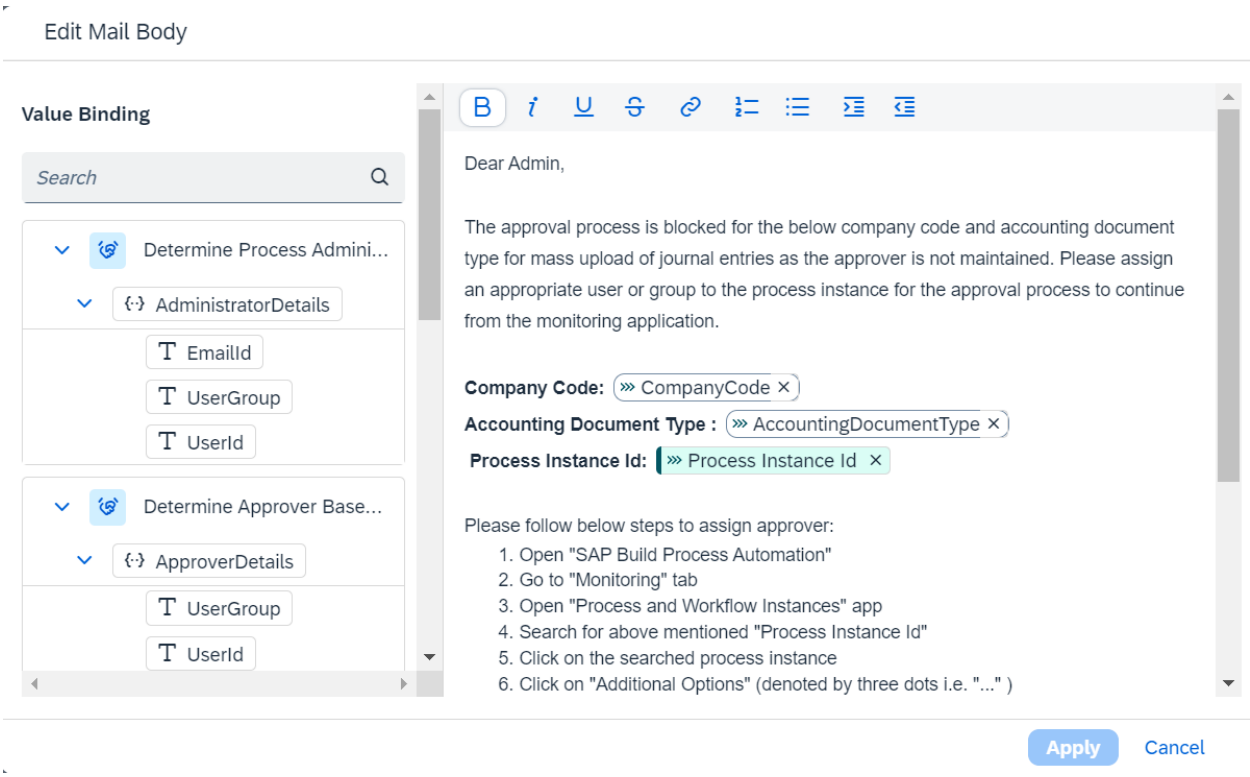
Email notifications are sent to requestor and approver at various places during process and task execution. All the email artefacts in the process have default template body which can be changed.

Update the email body content, do the following:

- Select the mail artefact in the process.
- From the **Settings** in the right-side panel, check the **Mail Header** to confirm the **To** field (or email recipients) and the **Subject**. You can adjust the subject and recipient, if needed.
- You may also add someone in **CC**.
- Click to '**Open Mail Body Editor.'**

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- The mail editor allows you to write and adjust text according to your needs. You can also reuse information that has been collected during the process. If you want to use additional process context data, you can simply drag the fields from the left menu to the editor on the right.

For more information on email configuration and text, refer to this link

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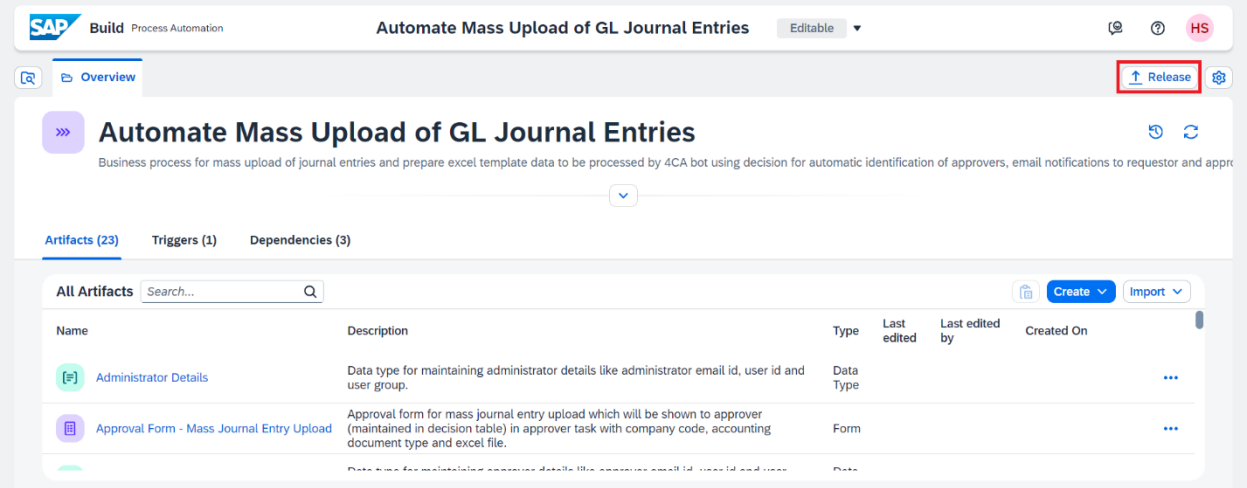
Release and Deploy the Process

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'.



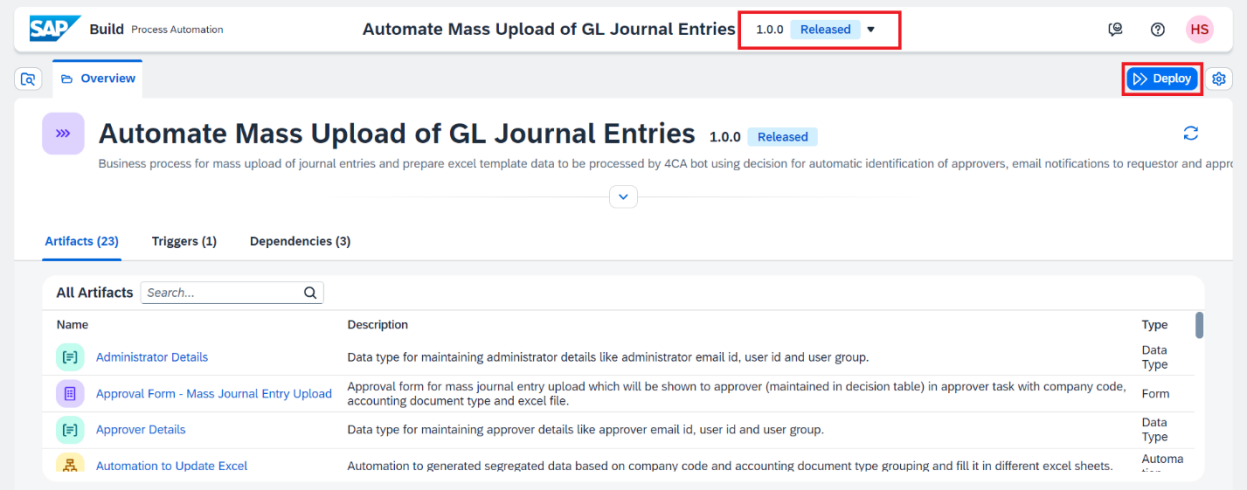
If this is the first time you've released the process, a version labelled 1.0.0 is released. For subsequent releases, you're prompted to select a version type before the process is released.

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'.

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To deploy your project, you will be prompted to provide the environment variables.

1. **BaseFolderPath4CABot**: Base folder path of 4CA bot where all excel will be stored and will be processed by 4CA bot.
2. **DMSDestination**: Destination to connect to Document Management Service.
3. **DMSFolderPath**: Document Management Service root folder path where all new folders and files are created.
4. **EmailAttachmentName**: Excel file name attached in the email for processing.
5. **EmailFolderProcessed**: Folder name where processed emails will be moved after execution. This should be created inside Inbox folder in Outlook as subfolder.
6. **EmailFolderToBeProcessed**: Folder name from where emails will be picked for execution. This should be created inside Inbox folder in Outlook as subfolder.
7. **EmailStartDate**: Select the date from which emails will pe processed by bot.
8. **EmailSubject**: Provide subject of the email which needs to be processed by bot.
9. **JournalEntriesExcelBaseFolderPath**: Base folder path of journal entries bot where all processed files will be stored.

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.

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User Guide

Capabilities

The following are the capabilities of this template:

Icon	Type	Name	Description
	Automation	Automation to Update Excel	Automation to generate segregated data based on company code and accounting document type grouping and fill it in different excel sheets.
	Automation	Create Folder for DMS	Automation to create folders in document management service to store the different excel sheets generated after grouping.
	Automation	Delete DMS Items	Automation to delete item from document management service using object id
	Automation	Deletion of Folder in DMS	Automation to delete file folder from document management service after the processing using folder object id
	Automation	Get DMS Folder Content	Automation to get folder content like object id, object name, object type from document management service
	Automation	Main - Read Excel and Initiate Process	Main automation to read excel input data and perform grouping on excel data based on company code and journal entry type and prepare different excel sheets and send it for approval
	Automation	Notify Requester for Auto Approved Task	Automation to send email to requestor if no Approval is required and auto approved the files
	Automation	Send Email to Requestor for Rejected Task	Automation to send email to user or requestor with comments if approver has rejected the Task.
	Automation	Read Excel Data	Automation to read excel template filled by user and get the data from multiple sheets available in that excel.
	Automation	Remove DMS Folder Content	Automation is to remove the folder content and folder details in document management service after the approval process.
	Automation	Search for Mail in Outlook	Automation to search for email in outlook based on subject, date and retrieve the attachment from email and store it in predefined folder.
	Automation	Send Email to Requestor for Approved Task	Automation to send email to requestor or user with comments if approver has approved the task.
	Automation	Upload Document in DMS	Automation used to upload generated excel sheets into document management service based on company code and accounting document type grouping
	Process	Mass Upload of GL Journal Entries Process	Created a process to call the decision of getting approver details and then used the created approval form to display the grouping fields with excel sheet

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			to approver for approval process and finally call the automation to send success and reject email notification to requestor or user or user group.
	Form	Approval Form - Mass Journal Entry Upload	Approval form for mass journal entry upload which will be sent to approver (maintained in decision table) with company code, accounting document type and excel file for approval.
	Decisions	Determine Approval Required	Decision to check if approval is required for mass upload of journal entries
	Decisions	Determine Approver	Decision to determine the approver based on parameters company code and accounting document type
	Decisions	Determine Process Administrator	Decision to determine process administrator who will assign approvers when no approver is maintained in determine approver decision.
	Data type	Administrator Details	Data type for maintaining administrator details like administrator email id, user id and user group.
	Data type	Approver Details	Data type for maintaining approver details like approver email id, user id and user group.
	Data type	DMS Object Data type	Data type used to store objectId, name and objecttype for document management service file and folders
	Data type	Document Folder Path	Data type to store document folder path which will be used in processes to pass the file from one artifact to another artifact
	File	Master Template - 4CA	Standard 4CA excel template used in mass journal entries scenario

Automation

Automation to Update Excel:

Automation to generate segregated data based on company code and accounting document type grouping and fill it in excel sheets.

Create Folder for DMS:

Create folders in document management service to store the different excel sheets generated after grouping and send notification email to user or requestor if any error occurs while creating folder.

Delete DMS Items:

Automation to delete item from document management service using object id and send notification email to user or requestor if any error occurs while deleting items from document management service.

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Deletion of Folder in DMS:

Automation to delete file folder from document management service after processing using folder object id and send notification email to user or requestor if any error occurs while deleting folder from document management service.

Get DMS Folder Content:

Automation to get folder content like object id, object name, object type from document management service and send notification email to user or requestor if any error occurs while getting folder content from document management service.

Main - Read Excel and Initiate Process:

Main automation to get the excel from email or predefined folder and read excel input data and perform grouping on excel data based on company code and journal entry type and prepare different excel sheets and send it for approval.

Notify Requester for Auto Approved Task:

Send email to requestor if no Approval is required and auto approved the files.

Send Email to Requestor for Rejected Task:

Automation to send email to user or requestor with excel file and comments if approver has rejected the Task.

Read Excel Data:

Automation to read excel template filled by user and get the data from multiple sheets available in excel.

Remove DMS Folder Content:

Automation is to remove the folder content and folder details in document management service after the approval process and send email to requestor or user if any error occurs in document management service operation.

Search for Mail in Outlook:

Automation to search for email in outlook based on subject, date and retrieve the attachment from email and store it in predefined folder.

Send Email to Requestor for Approved Task:

Send email to requestor or user with excel file and comments if approver has approved the task.

Upload Document in DMS:

Automation used to upload generated excel sheets into document management service based on company code and accounting document type grouping and send email to requestor or user if any error occurs while uploading document in document management service.

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Process

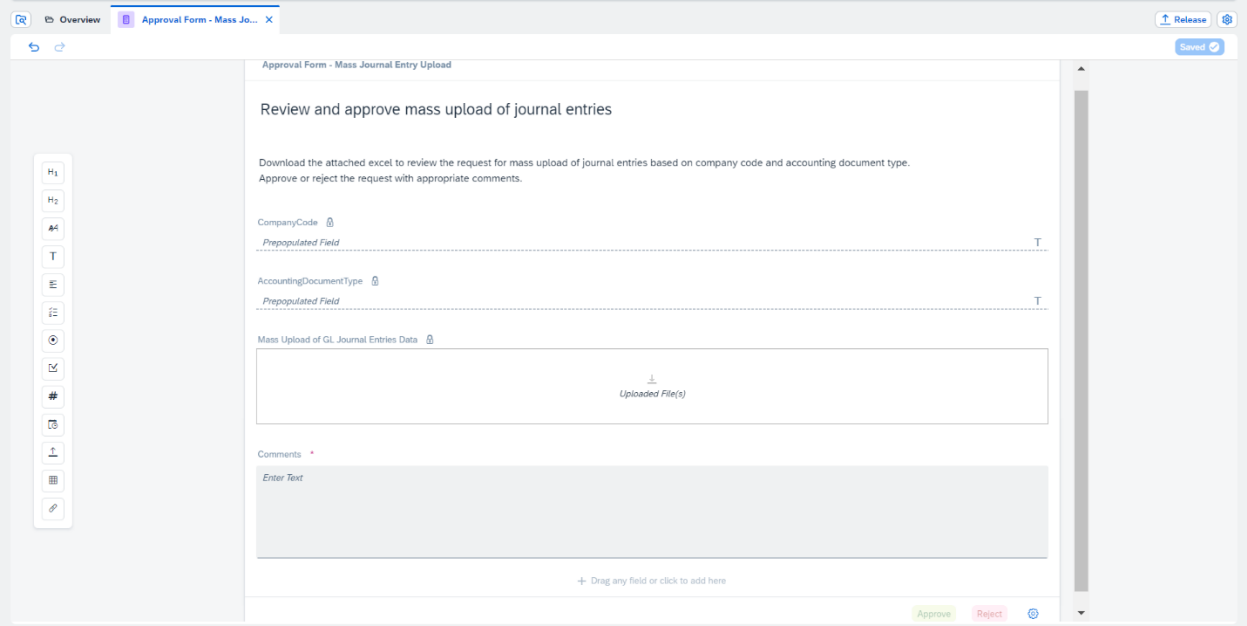
Mass Upload of GL Journal Entries Process:

Created a process to call the decision of getting approver details and then used the created approval form to display grouping fields with excel to approver for approval process and finally call the automation to send success or reject email notification to requestor or user.

Forms

Approval Form – Mass Journal Entry Upload

Approval form for mass journal entry upload which will be shown to approver (maintained in decision table) in approver task with company code, accounting document type and excel file and comment field.



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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