

PUBLIC

SAP Build Process Automation

Mass Maintenance of Billing Blocks In Sales Orders
Configuration & User Guide

Contents

Change Log....4
Overview....5
Prerequisites....6
Other Prerequisites....6
Process Flow....7
Configuration Guide....7
Setup SAP Business Technology Platform Cockpit....7
Destination Configuration....7
Configure SAP S/4HANA Cloud, public edition Destination....8
Setup SAP Build Process Automation Content....9
Import Content....9
Configuration & Modification....9
Configure Process....9
Configure Forms (Optional)....9
Configure Decisions....10
Configure Email....11
Release and Deploy Process....14
Configure SAP Work Zone....16
User Guide....17
Capabilities....17
Forms....19
Automations....20
Decisions....31
Email Notifications....32
Schedule an Automation to run in unattended mode....32
Run an Automation in attended mode....33
Process Visibility Scenario....34
Support....34

THE BEST RUN SAP®

Change Log

Version	Date	Description
1.0.0	July 28th, 2023	Document created

© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.

This document contains 3 sections. Each section cover 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) Integration Content via SAP Integration Suite, (c) SAPUI5 application via SAP Business Application Studio and (c) Import and configure the template using SAP Build Process Automation design studio and (d) SAP Work Zone to access the MyInbox or Task Center and other applications.

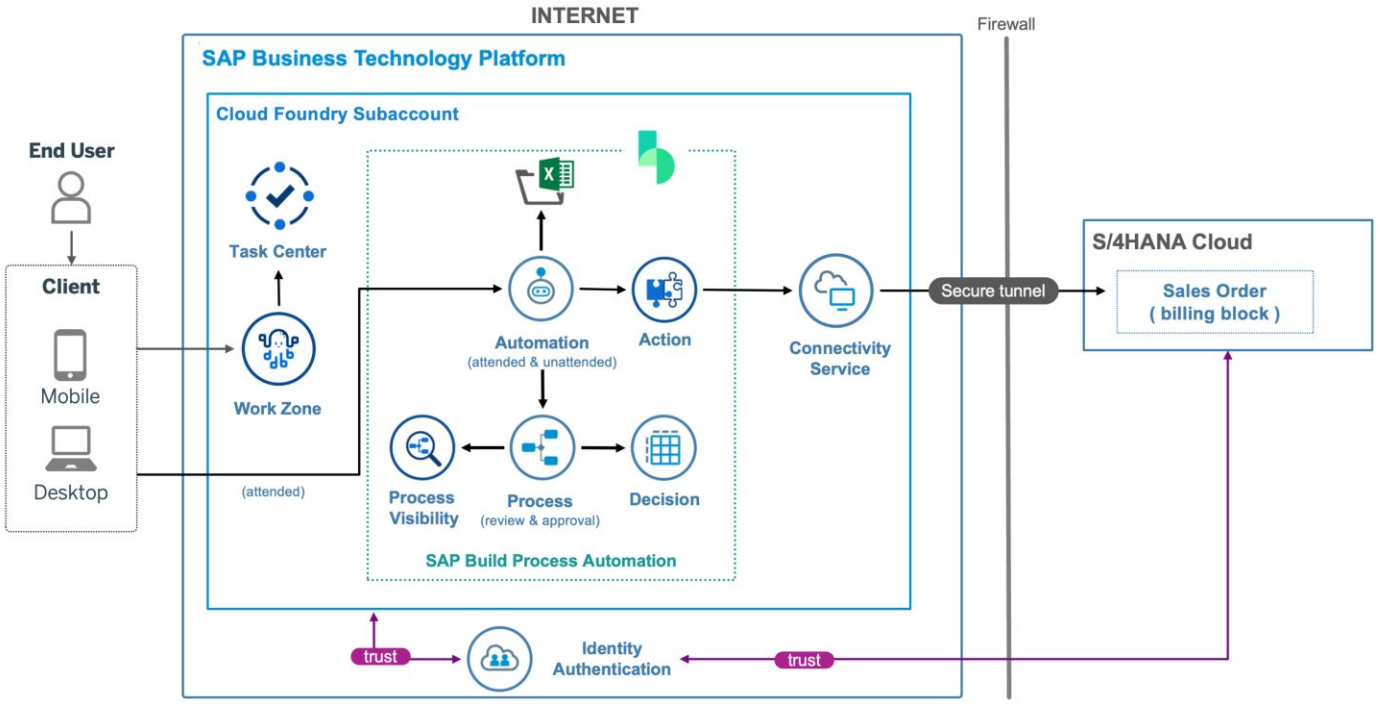
3. User Guide: This section provide details about different artefacts that are used in this template like process definition, decision diagram, action project details, forms, email notifications etc. to better understand how different capabilities are used in this template.

Note: 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 have to 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 **Mass Maintenance of Billing Blocks In Sales Orders** template automates updates on Sales order billing blocks. As billing blocks need to be updated or deleted ad-hoc or on-demand, it is more time-efficient for the users to complete and upload an excel template with the necessary data using a task automation, instead of performing it individually in S/4HANA system. This template covers the capability to update and delete billing blocks in S/4HANA public cloud system.



© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.

The following steps are included as a part of **Mass Maintenance of Billing Blocks In Sales Orders** template:

- The template uses the API_SALES_CONTRACT_SRV API.
  - More information can be found in Overview | Sales Order (A2X) | SAP Business Accelerator Hub

- Fetch operation – A pre-defined excel template file is populated with fetched sales order & billing block records based on the selection screen input.
  - The file is created in the 'FetchedSalesOrders' folder with the naming convention: 'FetchedS4_SalesOrder_<TimeStamp>
  - A log file is created with the naming convention 'Billing Block Log_<TimeStamp>'
  - An email is sent to the defined user along with the attachments.

  The user must manually update billing blocks in this file and moves it to the 'ToBeProcessed' folder.

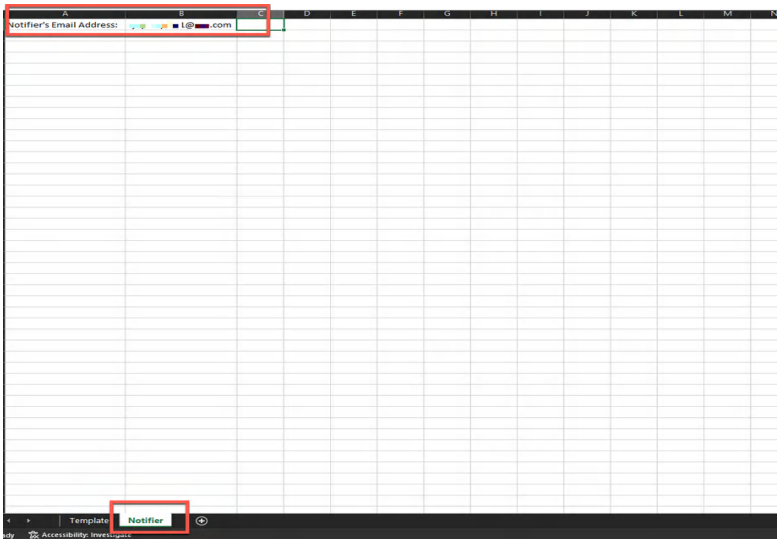
- A task automation to update sales order billing blocks in S/4HANA (after approval) runs in a predefined scheduled manner, in an unattended mode. This automation fetches the file(s) from the 'ToBeProcessed' folder. It can handle multiple files in the folder.

  - The fetched file is read, Sales order items are grouped based on the sales order IDs and sent for an optional approval.
    - **If approved**, only the selected header and items are updated in S/4HANA system and the user is notified. Note: Items or header that are not selected will not be updated.
    - **If rejected**, the entire sales order and all its items are rejected and no update takes place in S/4HANA system.

- Once the file(s) have been processed and approval tasks are sent to respective approvers, it is moved to the 'Processed' folder and renamed to 'Processed_SalesOrders_<TimeStamp>'.
  - These files are also sent as an attachment to a defined sales representative.

- The template can also work in collaboration with the Business Document Extraction from Email (70U) bot available in the SAP Build Store. The config file attached to 70U content package(70UConfig.xlsx) can be used and placed in the folder as shown in the folder structure mentioned below in the prerequisites section.
  Note: In the case of files fetched using the 70U Packge, the input template must be edited to add an additional sheet names 'Notifier' with the person to be notified's email address in the cell B1

© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.



Prerequisites

The following SAP Business Technology Platform services are required to consume the content package Mass Maintenance of Billing Blocks In Sales Orders:

- SAP Build Process Automation to orchestrate the process.
- SAP Cloud Identity Services - Identity Authentication
- SAP S/4HANA Cloud
- SAP Business Technology Platform, Cloud Foundry runtime

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.
- The S/4HANA Communication User must have the **INTERNAL_SALES_REP** role.

- See the folder structure below:
  note: the excel template files are included in this package and all names are case-sensitive

Name	Type	Sample Path	Description
<Root Folder>	Folder		Root Path
I 70UConfig.xlsx	File	C:\Root\70UConfig.xlsx	70U bot config file to place files in the 'ToBeProcessed' Folder
+-Sales Order	Folder	C:\Root\Sales Order	Sub Folder
+-Mass Billing Block	Folder	C:\Root\Sales Order\Mass Billing Block	Sub Folder
+- Templates	Folder	C:\Root\Sales Order\Mass Billing Block\Templates	Sub folder which contains blank template files
I Billing Block Log_YYYMMDD. xlsx	File	C:\Root\Sales Order\Mass Billing Block\Templates\Billing Block Log YYYMMDD.xlsx	Blank Fetch operation log file
I Input Template.xlsx	File	C:\Root\Sales Order\Mass Billing Block\Templates\Input Template.xlsx	Blank Input file which will be autopopulated with sales orders and items
I Selection Screen.xlsx	File	C:\Root\Sales Order\Mass Billing Block\Templates\Selection Screen.xlsx	Blank selection screem file
+-FetchedSalesOrders	Folder	C:\Root\Sales Order\Mass Billing Block\FetchedSalesOrders	Folder containing files with fetched sales orders yet to be updated by sales representative
+- Processed	Folder	C:\Root\Sales Order\Mass Billing Block\Processed	Folder containing processed files with sales orders which have been sent for approval during the update operation
+-SelectionScreen	Folder	C:\Root\Sales Order\Mass Billing Block\SelectionScreen	Folder containing populated selection screen files used in fetch operation
+-ToBeProcessed	Folder	C:\Root\Sales Order\Mass Billing Block\ToBeProcessed	Folder containing files updated by sales representative which will be picked for the update operation

Important Note – The template file names & structures are fixed; no changes should be made to them for the entire process to work.

© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.

Process Flow

1) The sales representative runs the fetch operation via the '**Main Fetch - Sales Orders from S/4HANA to Excel**' automation which can run in an attended and unattended modes.

   For this, the selection screen template file available in the 'Templates' folder needs to be copied, populated with the selection criteria required for the sales order & item data fetch and placed in the 'Selection Screen' folder. Multiple selection screen files may exist in this folder.

2) The automation fetches the data from the S/4HANA system as per the selection criteria, populates the input template file with the sales order and item records and places the file along with a control record log in the 'FetchedSalesOrders' folder.

3) The sales representative updates the required header & item billing blocks in this file and moves it to the 'ToBeProcessed' folder for final processing.

4) The 'Main Update - S/4HANA With Billing Block From Template' automation, which can run in attended or unattended modes, reads the updated input files from the 'ToBeProcessed' folder, groups sales orders with its respective items and send them for approval(optional). The Input file is then moved to the 'Processed' folder.

5) Once the approver approves the sales order, the data is updated in S/4HANA. In the case where no approval is needed, the data is automatically update in S/4HANA.

Configuration Guide

The Mass Maintenance of Billing Blocks In Sales Orders template requires SAP Build Process Automation subscription or CPEA contract. Follow the setup and configuration section.

Setup SAP Business Technology Platform Cockpit

Destination Configuration

Configure SAP S/4HANA Cloud, public edition Destination

To access the S/4HANA system for read and update operations, an HTTP destination is required in the SAP BTP account where the SAP Build Process Automation is subscribed. The API used can be found here Overview | Sales Order (A2X) | SAP Business Accelerator Hub

Create a destination with Basic Authentication.

Make sure the communication user has the appropriate communication strategy to edit sales orders assigned to it in the S/4HANA system.

Destination with Basic Authentication

Name	<name>
Type	HTTP
Proxy Type	Internet
Authentication	Basic Authentication

© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.

URL	<S/4HANA - API_SALES_CONTRACT_SRV endpoint> Example: https://**<s4system-name>-api**.xxxxxxxx/sap/opu/odata/sap/API_SALES_CONTRACT_SRV/
Username	<Username> of the S/4HANA Communication User
Password	<Password> of the S/4HANA Communication User

Additional Properties to Destination

Additionally, add the following properties in the destination for cloud integration

sap.applicationdevelopment.actions.enabled	true
sap.processautomation.enabled	true

- **Configure SAP Build Process Automation Email Destination**

  Mail notifications are used in this template to send notifications to requestor, approver and admin during different stages of the process. Follow the instructions to setup mail destination in your SAP BTP Account.

  Configuring destination, see **Configure a SMTP Mail Destination.**

  - For more information refer to Create HTTP Destinations and OAuth User Token Exchange Authentication.

IMPORTANT NOTE: This template content is to accelerate your solution development. You can modify this template according to your own requirements to achieve your business goals. To use this template content, you need to have basic knowledge and understanding of SAP Build Process Automation and its capabilities.

Setup SAP Build Process Automation Content

Import Content

This template can be downloaded from the Store:

1) Navigate to the **Store** in your SAP Build Process Automation application.
2) Select the Project Type filter as "**Process Automation**"
3) In the Search bar type "**Mass Maintenance of Billing Blocks In Sales 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 Maintenance of Billing Blocks In Sales Orders" project 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.

© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.

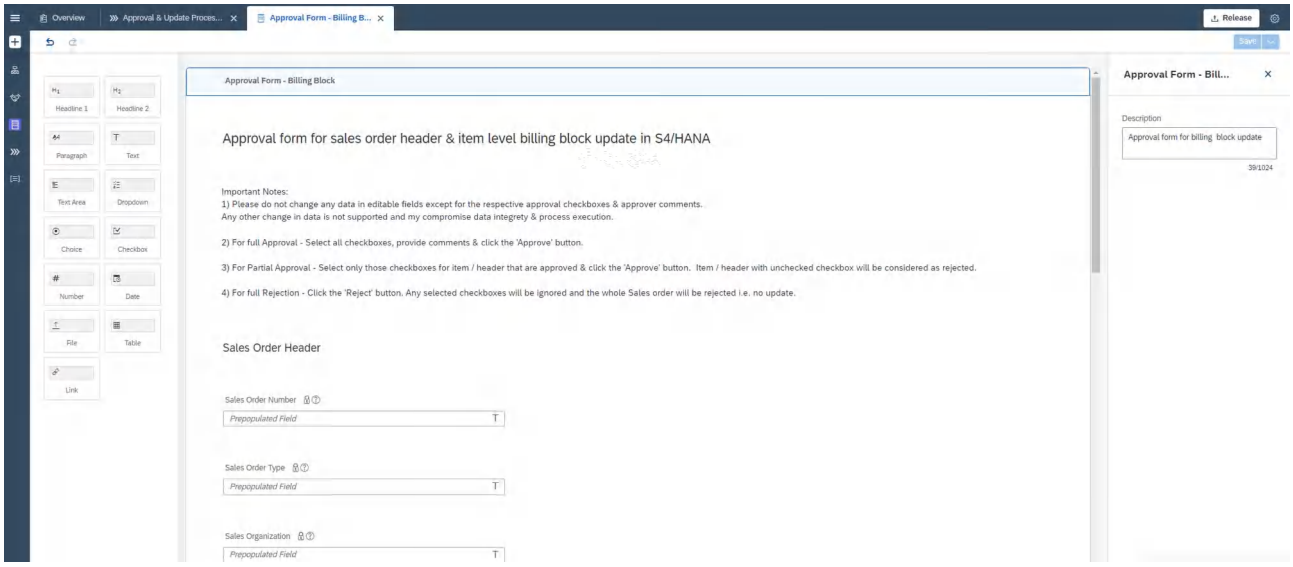
Configure Process

There are no configuration needed in the process but you extend it based on your requirements

Configure Forms (Optional)

You can update or extend the forms based on your requirements. To edit the form:

- Double click the form to open the Form Editor
- You can configure existing fields or add new layout or input fields to the form by simply dragging-and-dropping them from the side menu.

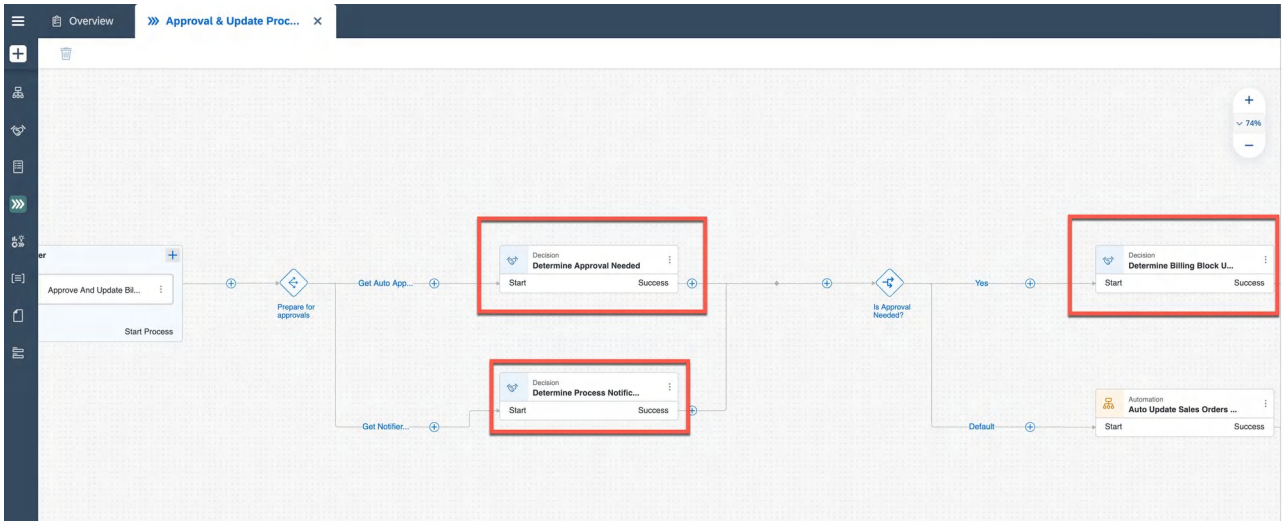


Configure Decisions

The process contain three decisions :

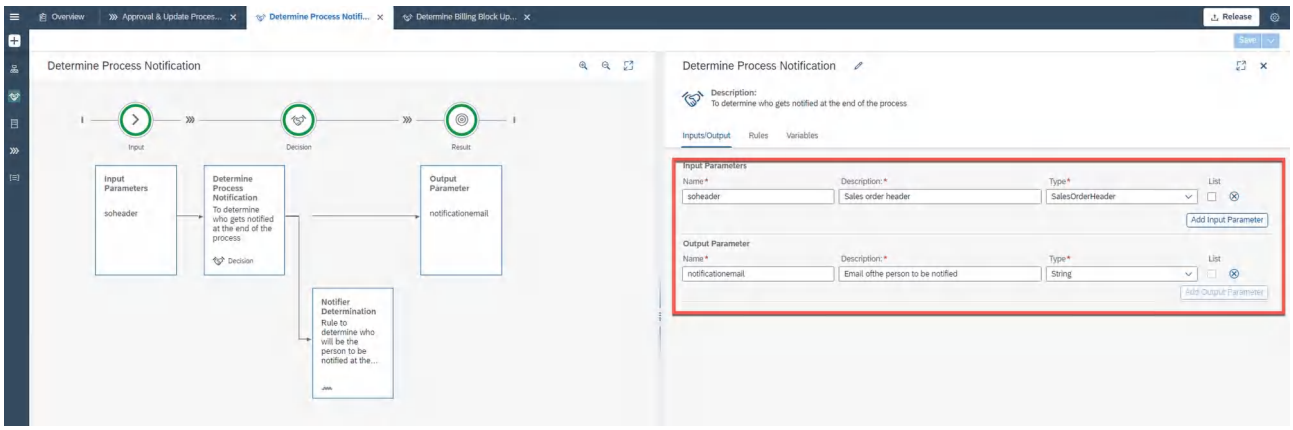
- **Determine Process Notification** – This decision is used to determine the email address of the person to be notified via mail once the process is completed.
- **Determine Billing Block Update Approver** – This decision is used to determine the approver email address where the approval task for the sales order will be sent.
- Determine Approval Needed – This decision is used to determine if the approval steps are needed for the current sales order or not.

© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.

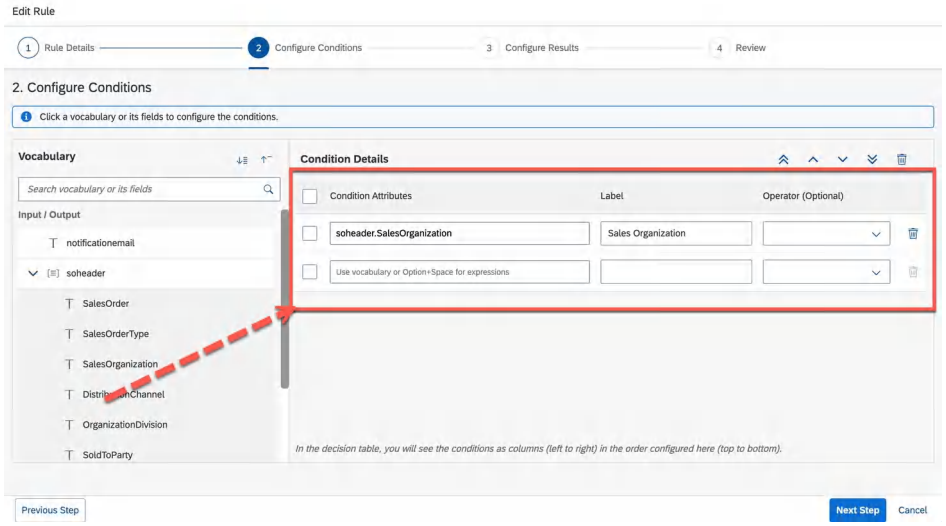


These decisions have to modified for conditions and result values based on your business policies and requirements. To modify the decision:

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

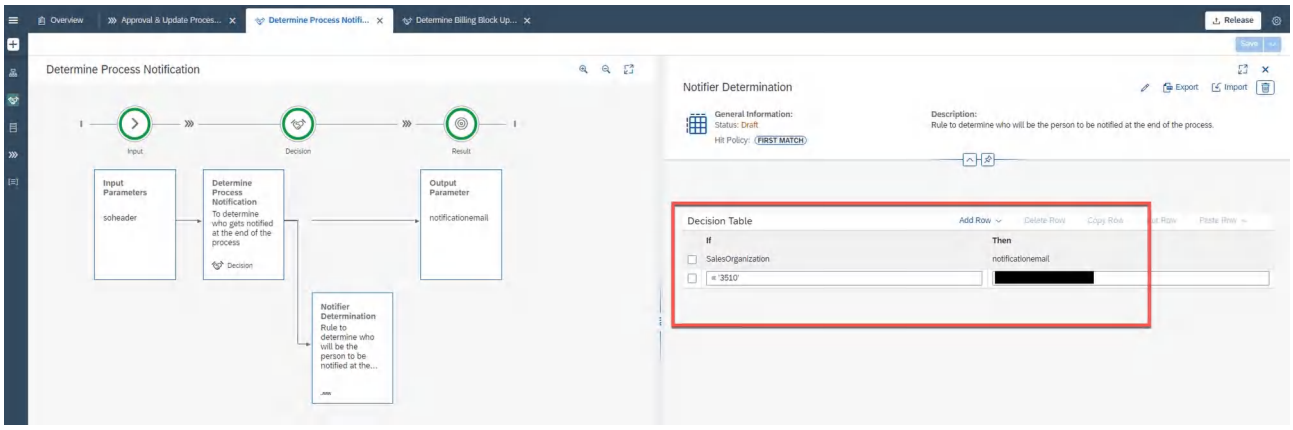


The attributes used in the decision rule can be selected as per requirement.



© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.

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



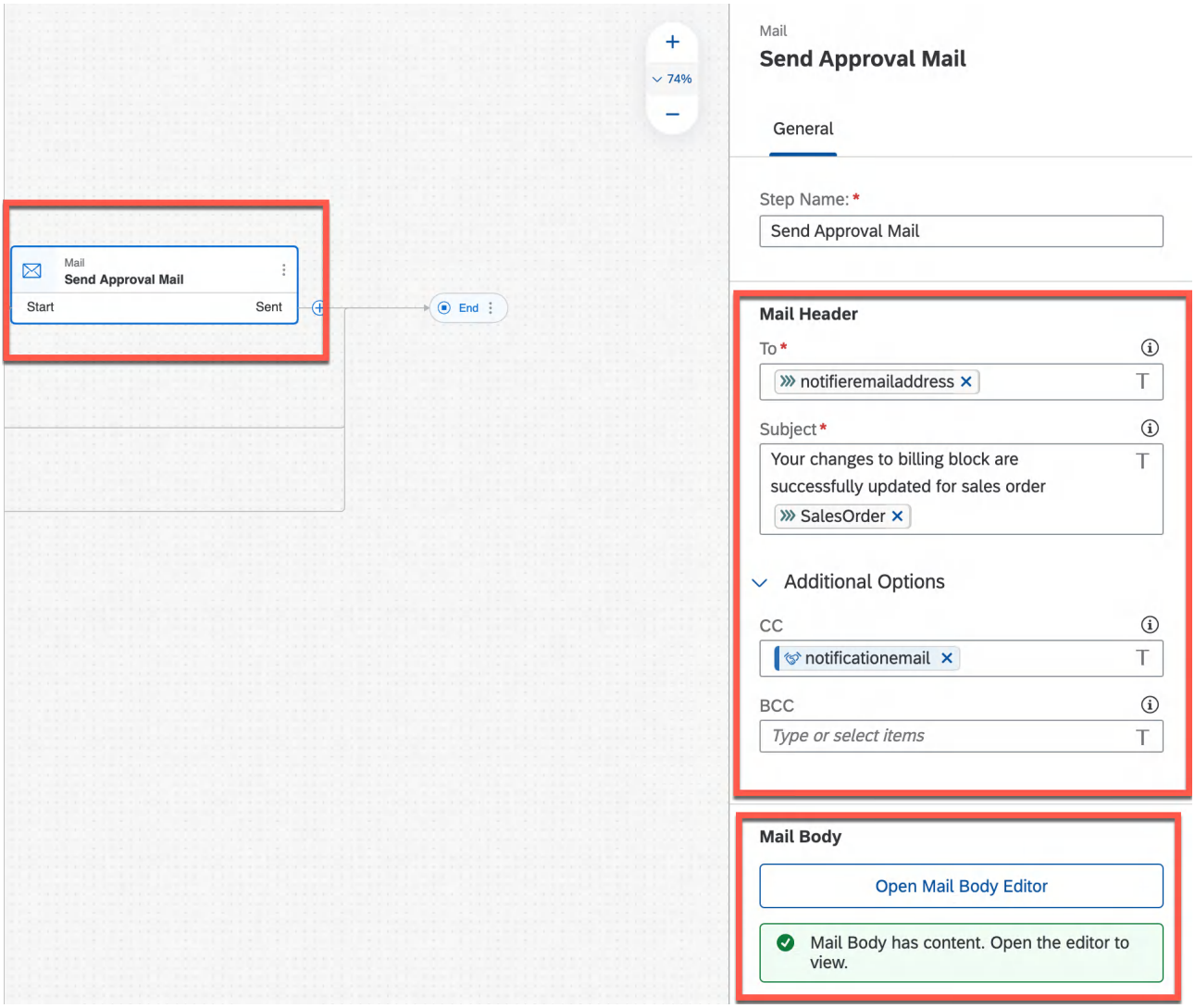
Configure Email

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

To update the email body content, do the following:

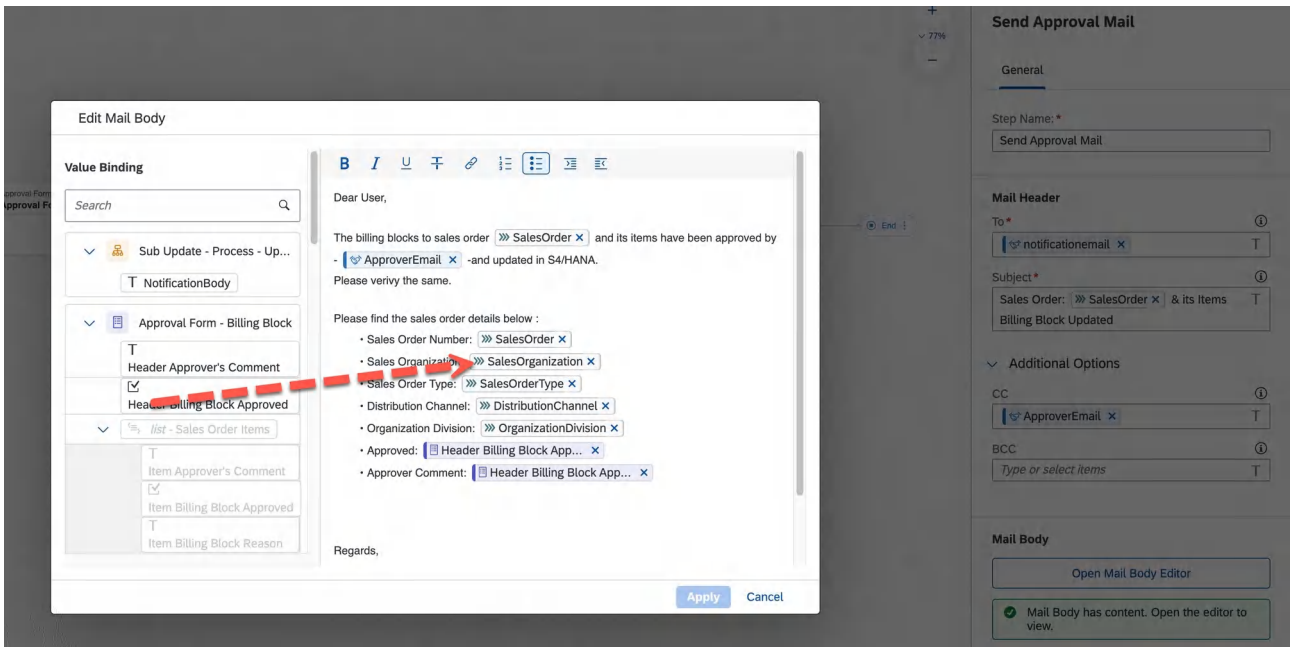
- Select the mail artefact in the process
- From the Settings in the right side panel, check the Mail Header to confirm the 'To' field (or email recipients) and the Subject. You can adjust the subject and recipient, if needed.
- You may also add someone in 'CC'
- Click to 'Open Mail Body Editor'.

© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.

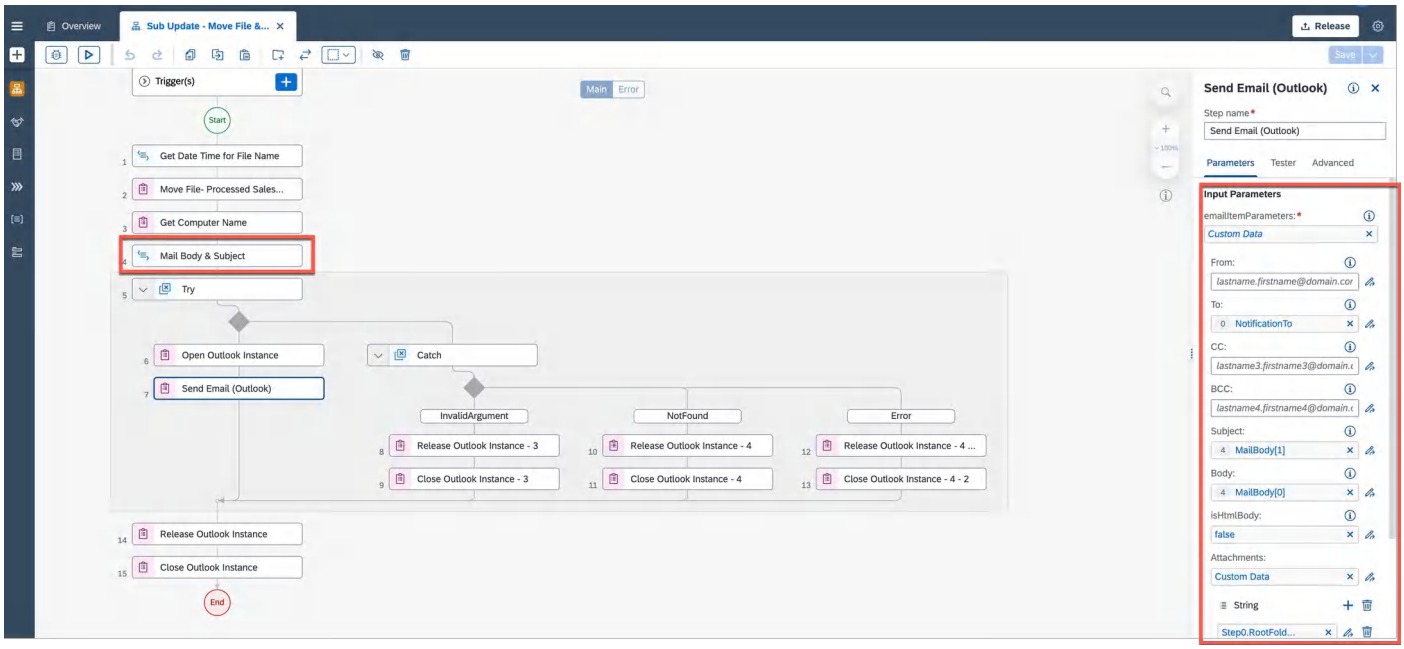


The mail editor allows you to write and adjust text according to your needs. You can also reuse information that has been collected during the process. If you want to use additional process context data, you can simply drag the fields from the left menu to the editor on the right

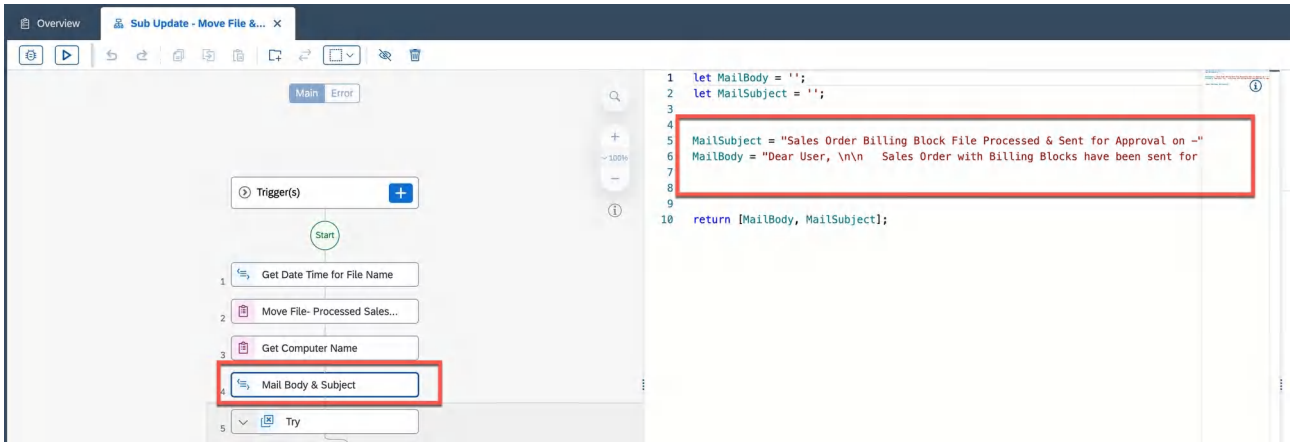
© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.



There are email notification steps available in the automations as well. These are sent via Microsoft Outlook on the computer where the automations run.
The body and subject of the email are composed in custom scripts and can be modified accordingly as per your need.



© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.

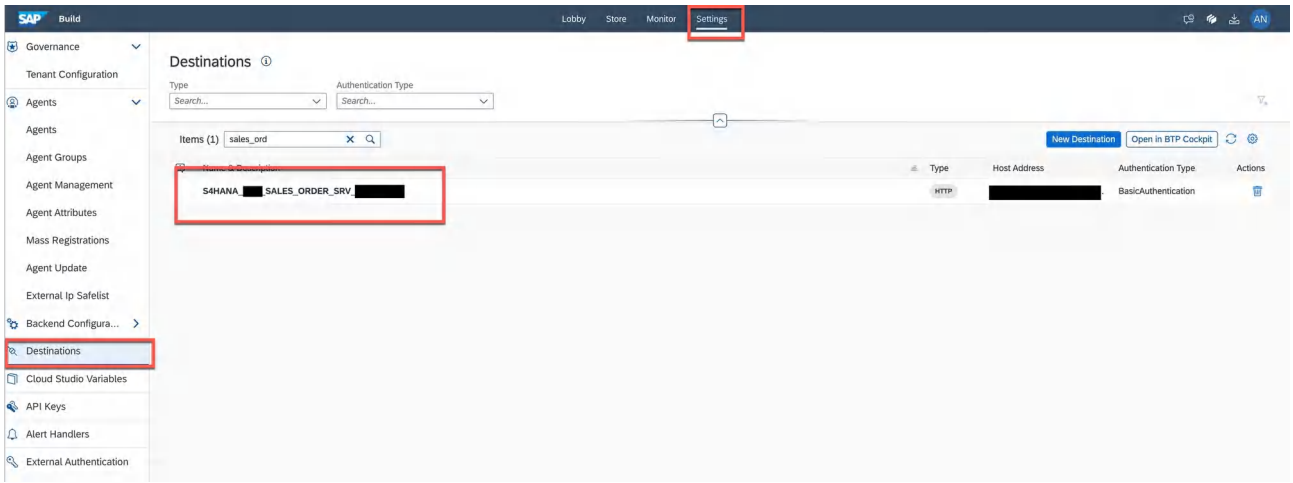


Configure Destination Settings

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.

To configure destination,

- click on **Settings**
- Select **Destinations** from the left panel
- Click **New Destination**
- Select these destinations to be added
    - SAP S/4HANA Cloud, public edition destination name created above in the Destination Configuration section



Release and Deploy Process

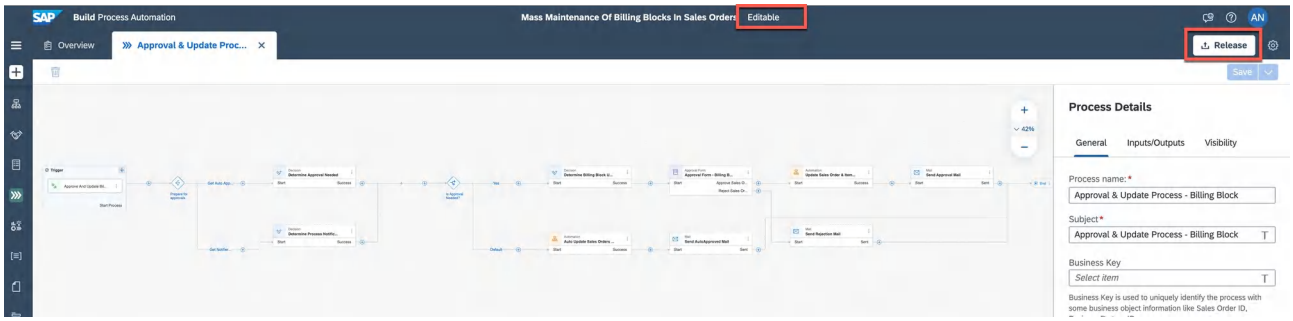
After configuring your process, it's time to publish, test and run it. To run a process, you must first release and deploy it.

© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.

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'.
- The click 'Release':

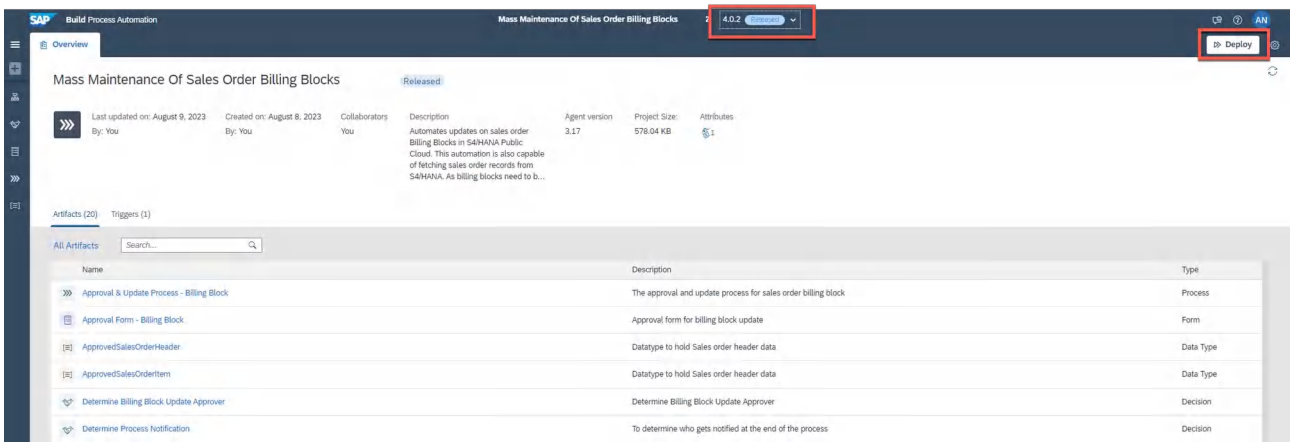


If this is the first time you've released the process, a version labelled 1.0.0 is released. For subsequent releases, you're prompted to select a version type before the process is released.

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'



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

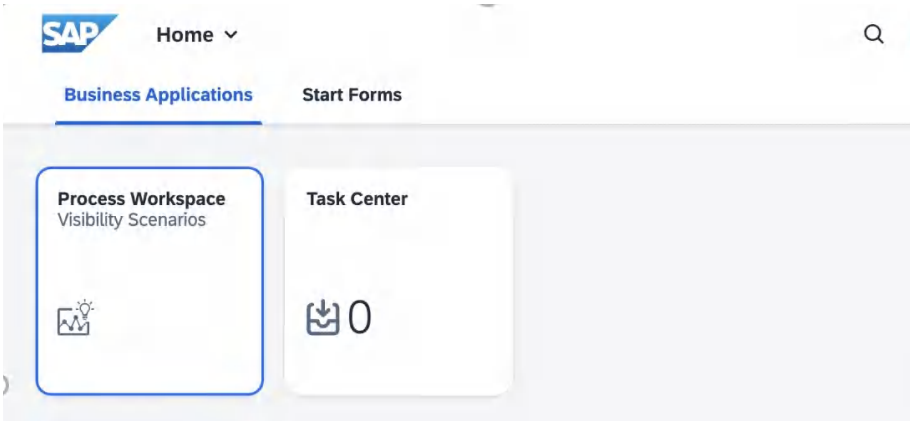
For more details about the Destination artefact, please read our documentation.

© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.

Configure SAP Work Zone

Now that the process is released and deployed, you can configure SAP Work Zone standard or advanced edition to give access to your business users to track the process and business KPIs using process visibility workspace.

To configure SAP Work Zone standard edition - add Process Workspace and Task Center tile in SAP Work Zone to access the visibility dashboard. Follow the tutorial to configure Work Zone with visibility tiles



© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.

User Guide

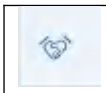
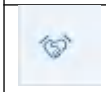
Capabilities

This template content contains the following key artifacts:
Please refer help documentation about these different artifacts.

© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.

Icon	Type	Name	Description
	Process	Approval & Update Process - Billing Block	This Process is responsible for determining the approver, determining the user to be notified, approval form for the sales order, triggering the update automation & finally sending the notification email for approval or rejection.
	Automation	Main Fetch - Sales Orders from S/4HANA to Excel	This main automation is for the fetch operation. It gets sales orders details from S/4HANA based on selection screen Inputs.
	Automation	Sub Fetch - Selection Screen Orders To Excel	This sub automation is used to fetch sales orders and billing blocks from S/4HANA and populate the excel template
	Automation	Sub Fetch- Move File, Log & Send Mail	This sub automation moves the fetched records file to the 'FetchedSalesOrders' folder. It also creates the log file & sends an mail with attachments of the fetched data and log to sales representatives. **It is designed to run in both attended and unattended mode during predefined time intervals.**
	Automation	Main Update - S4 With Billing Block From Template	This is the main automation for the update operation. It triggers the approval process and accordingly updates S/4HANA backend with billing blocks from template file. **It is designed to run in unattended mode during predefined time intervals.**
	Automation	Sub Update - Group & Call Approval Process	This sub automation reads the excel records, groups sales order items based on sales order ID and calls the approval process per sales order. Once the approval is done, it updates the sales order header and item with billing blocks in S/4HANA system.
	Automation	Sub Update - Move File & Send Mail	This sub automation moves the update records file from 'ToBeProcessed' to 'Processed' folder & send mail with attachments of the processed data to the sales representative.
	Automation	Update Approved Sales Order & Items	This sub automation is triggered on clicking ‘Approve’ button in the approval form. It updates the approved sales order and its items.
	Automation	Auto Update Sales Orders & Items	This sub automation is triggered when no approval is needed for the sales order billing block. It autoupdates the sales order and its items.
	Decision	Determine Billing Block Update Approver	This decision is used to determine the approver to whose SBPA ‘My Inbox’ application who will review and approve the changes done in billing blocks. The approval form appears in the inbox of he selected approvers. the approval form will be sent to. By default itIt uses the header data – Sales Order Type, Sales Organization, Distribution Channel and& Organization Division to determine the approver’s email address. approvers.

© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.

	Decision	Determine Process Notification	This decision is used to determine to whom a notification email is to be sent to once the changes in the billing block are approval/rejection step is approved or rejected. completed. By default Iit uses the header data –Sales Organization to determine the notification email address of the notifier..
	Decision	Determine Approval Needed	This decision is used to determine if an approval process is needed or the order can be auto updated without approval. It uses the Sales Organization, Distribution Channel, Sales Order Type and Sold To Party to determine this.
	Form	Approval Form - Billing Block	This form is sent to the approver's My iInbox applicationvia My Inbox or Task Center. It contains sSales order header and respective item details along with checkboxes to select mark an objectthe header or item for as approved or not. Approver can also enter respective reasons in dedicated comments fieldapproval and corresponding approver's comments.
	Mail	Send Approval Mail	This mail step sends a notification to the determined user and approver in cc. It is triggered at the end of the update process after approval is done and the billing block is successfully updated in the backend S/4HANA system.
	Mail	Send Rejection Mail	This mail step sends a notification to the determined user. It is triggered after the approver rejects the changes to the billing block. No update takes place the S/4HANA system
	Mail	Send Auto Approved Mail	This mail step sends a notification to the determined user. It is triggered at the end of the update process for auto approval and the billing block is successfully updated in the backend S/4HANA system.
	Project Launcher	Mass Maintanance Of Billing Blocks Fetch & Update	The project launcher is used to create attended triggers for the Update and Fetch operations.

© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.

Forms

Approval Form - Billing Block

This is the approval form which contains sales order header and item data.
Each header and item has corresponding checkboxes and text area for approver comments

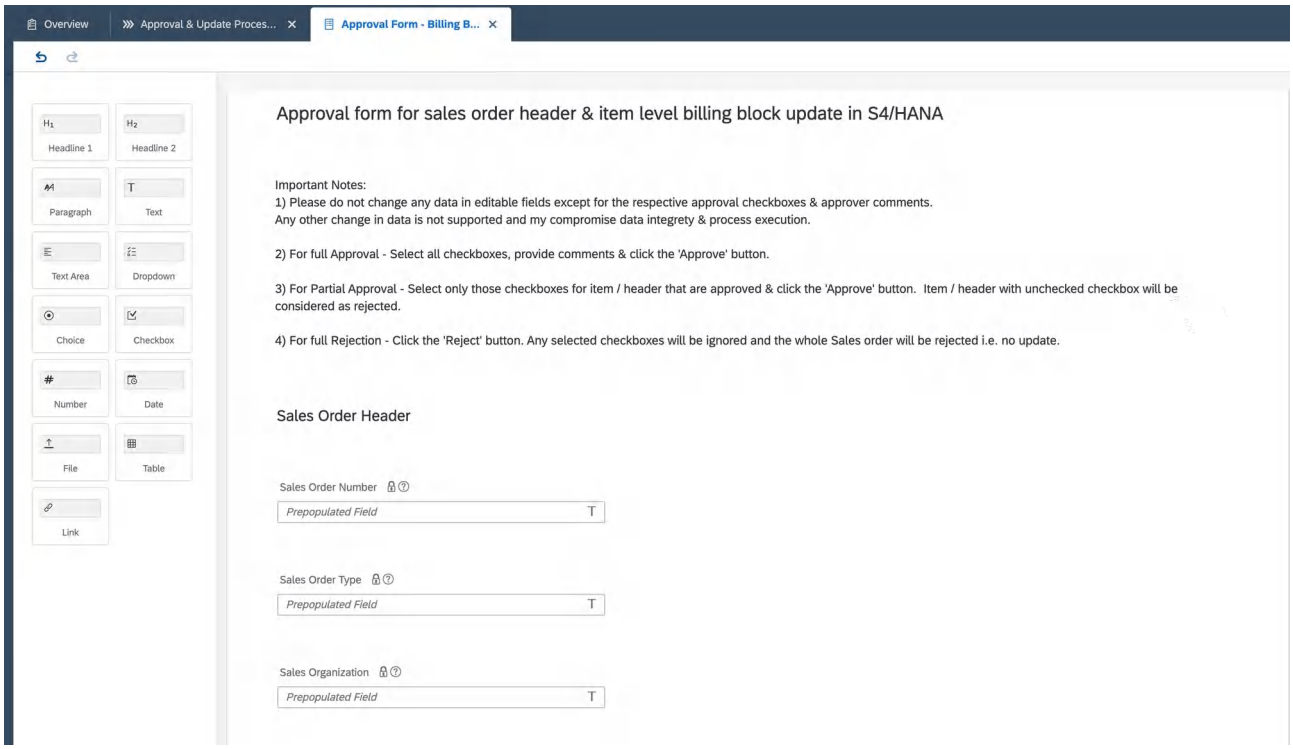
Selected checkboxes indicate that the header/item is approved and will be updated in S/4HANA.

Important Notes:
1) Please do not change any data in editable fields except for the respective approval checkboxes & approver comments.
Any other change in data is not supported and my compromise data integrity & process execution.

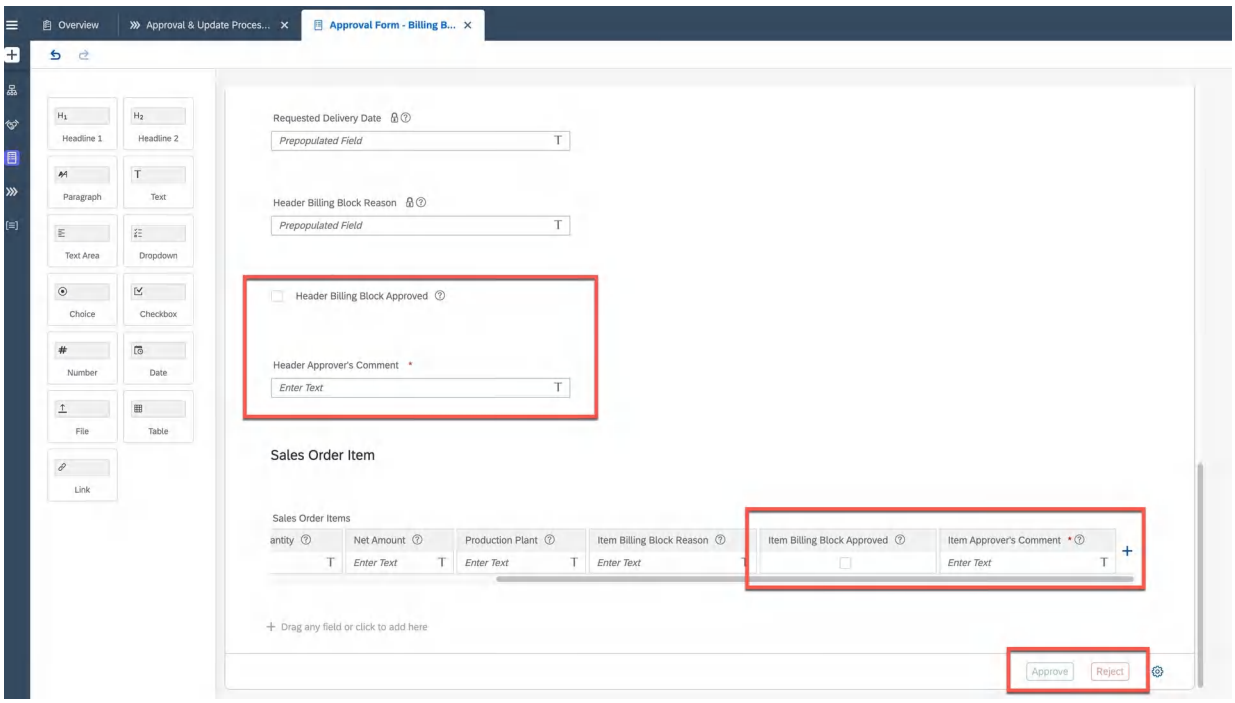
2) For full Approval - Select all checkboxes, provide comments & click the 'Approve' button.

3) For Partial Approval - Select only those checkboxes for item / header that are approved & click the 'Approve' button. Item / header with unchecked checkbox will be considered as rejected.

4) For full Rejection - Click the 'Reject' button. Any selected checkboxes will be ignored and the whole Sales order will be rejected i.e. no update.



© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.



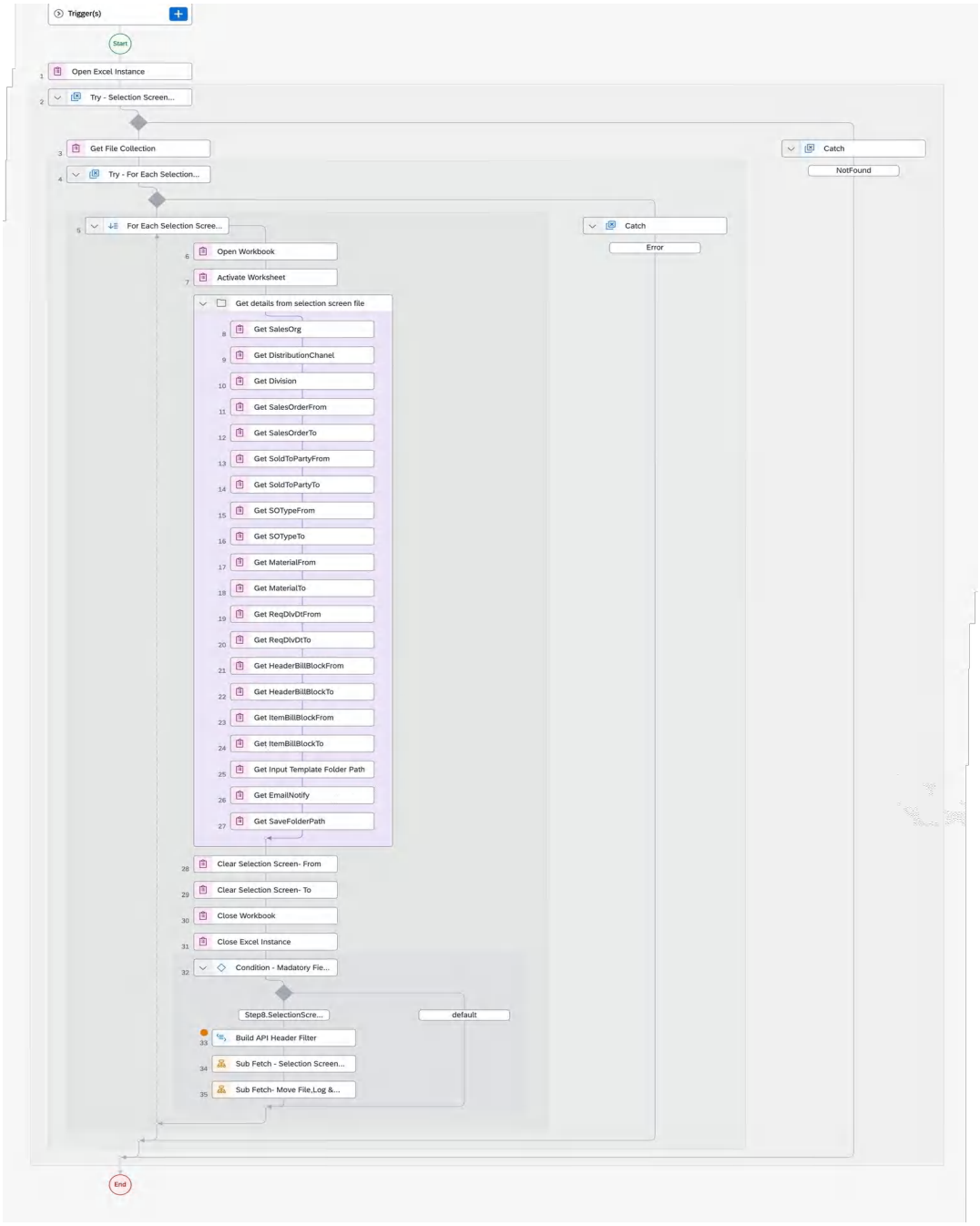
Automations

Main Fetch - Sales Orders from S/4HANA to Excel

This is the main automation to get Sales Orders details from S/4HANA based on the Selection Screen Input file.
It contains 2 sub automations:

- Sub Fetch - Selection Screen Orders To Excel
- Sub Fetch- Move File, Log & Send Mail

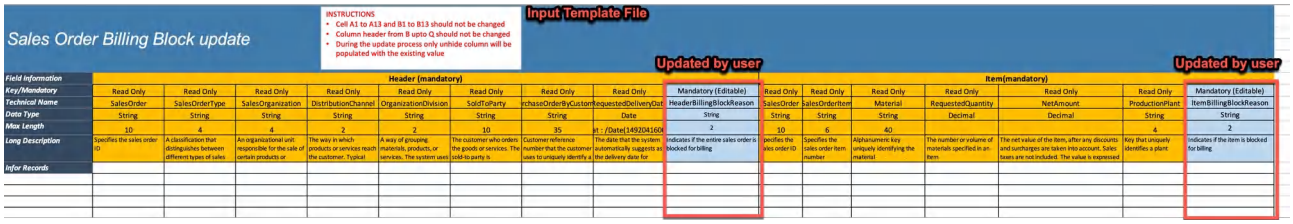
© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.



- Step 1 to 7: Reads all selection screen excel files that exist in the folder and opens them one at a time for processing.
- Step 8 to 27: Reads each of the selection screen excel input values into fields
- Step 28 to 31: Clears the selection screen input values so that it is not read over and over again.
- Step 33: Builds the $filter string for Read Header API call to S/4HANA .
- Step 34: Fetches sales order and item data based on selection screen input & populates the template file.
- Step 35: Builds a log file for control records using the template in the ‘Templates’ folder & moves the fetched data file & log file to the ‘FetchedSalesOrders’ folder

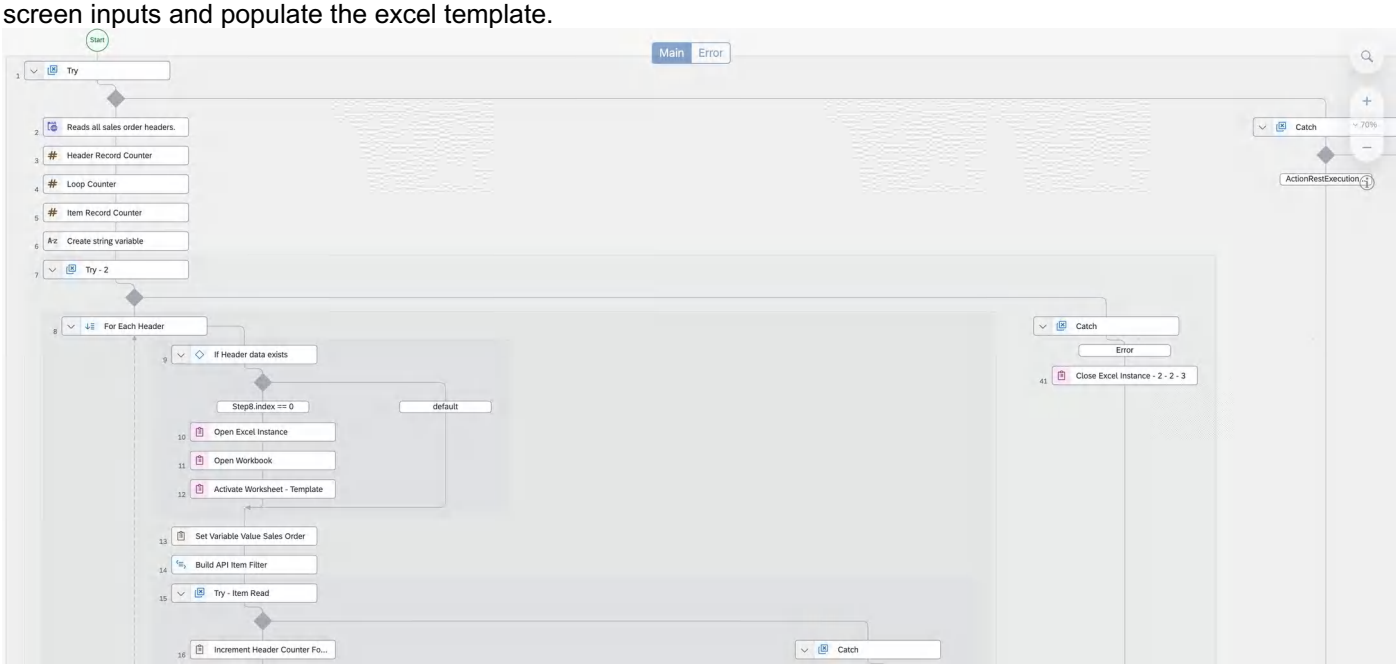
The user then edits this file by updating the **only** billing block columns for Header and Item records and places it in the ‘ToBeProcessed’ folder

© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.



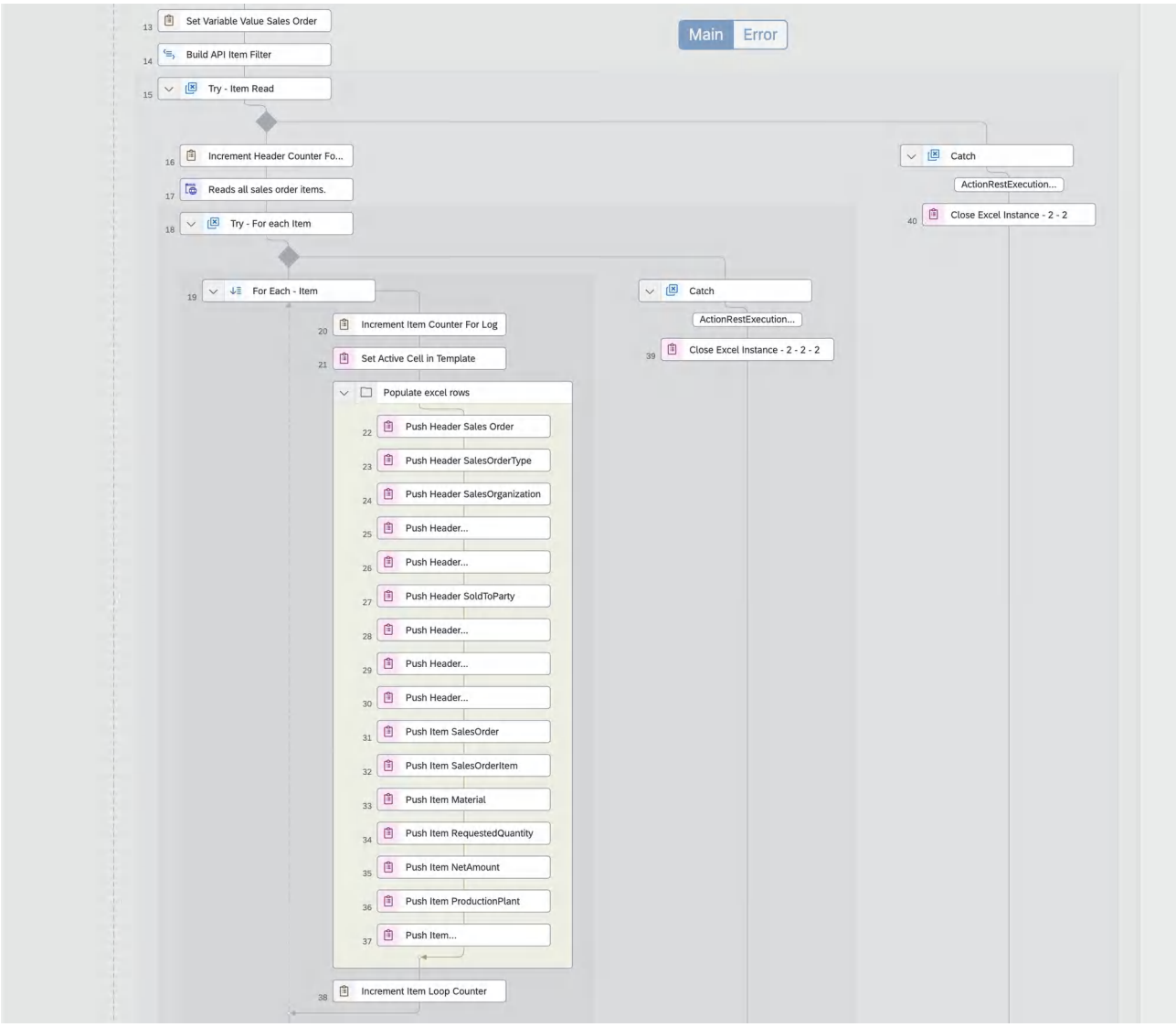
Sub Fetch - Selection Screen Orders To Excel

This sub automation is used to fetch sales orders and billing blocks from S/4HANA based on selection screen inputs and populate the excel template.



- Step 2: Read all sales order header details based on the $filter generated from selection screen
- Step 8: Loop through each of the sales order header
- Step 14: Build the $filter for the item fetch for the sales order

© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.

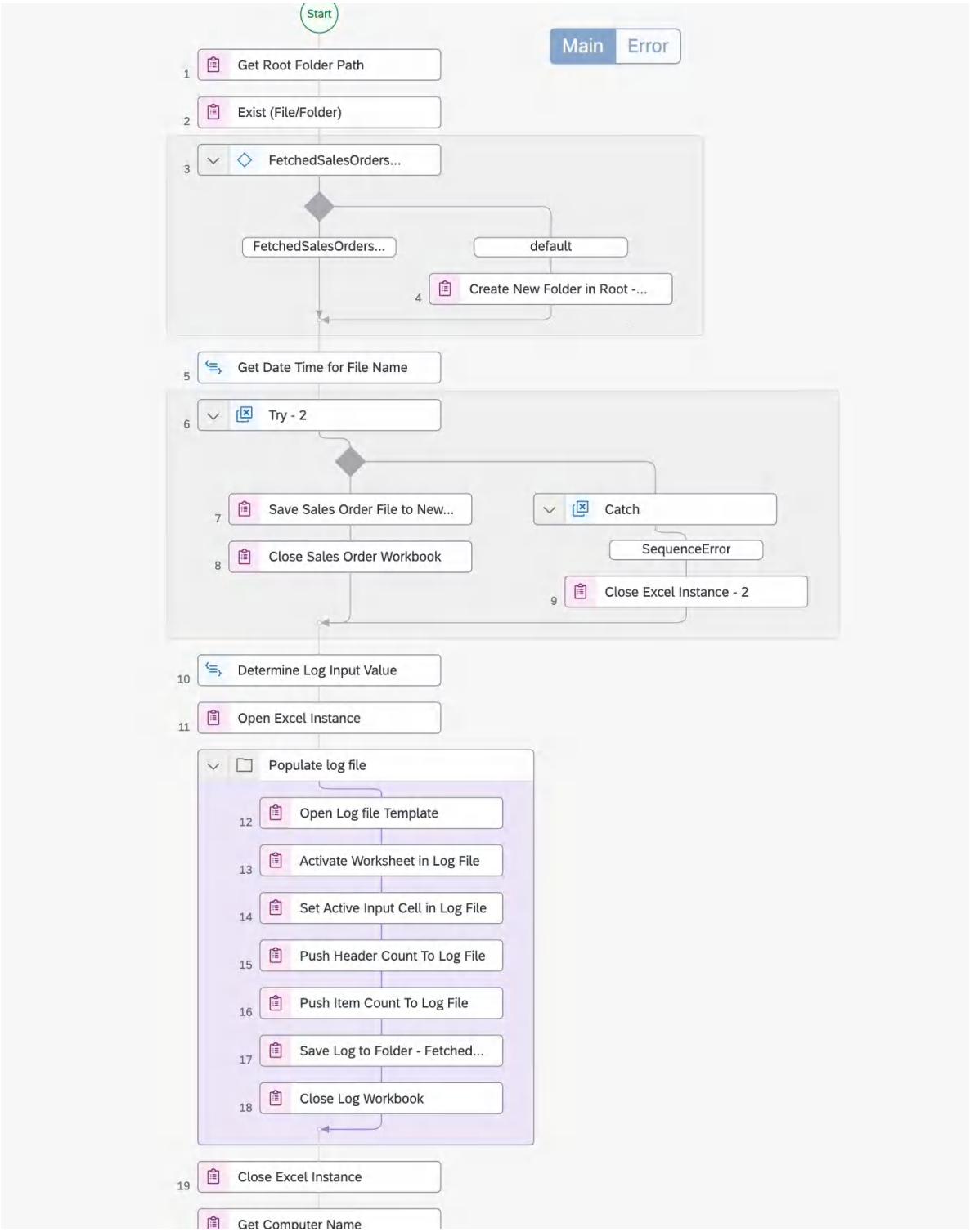


- Step 17: Fetch all items for the current sales order loop based on the $filter for item
- Step 19: Loop through each fetched item
- Step 22 to 37: Populate the blank input template file with the fetched records for header and items, cell by cell and row by row

© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.

Sub Fetch- Move File, Log & Send Mail

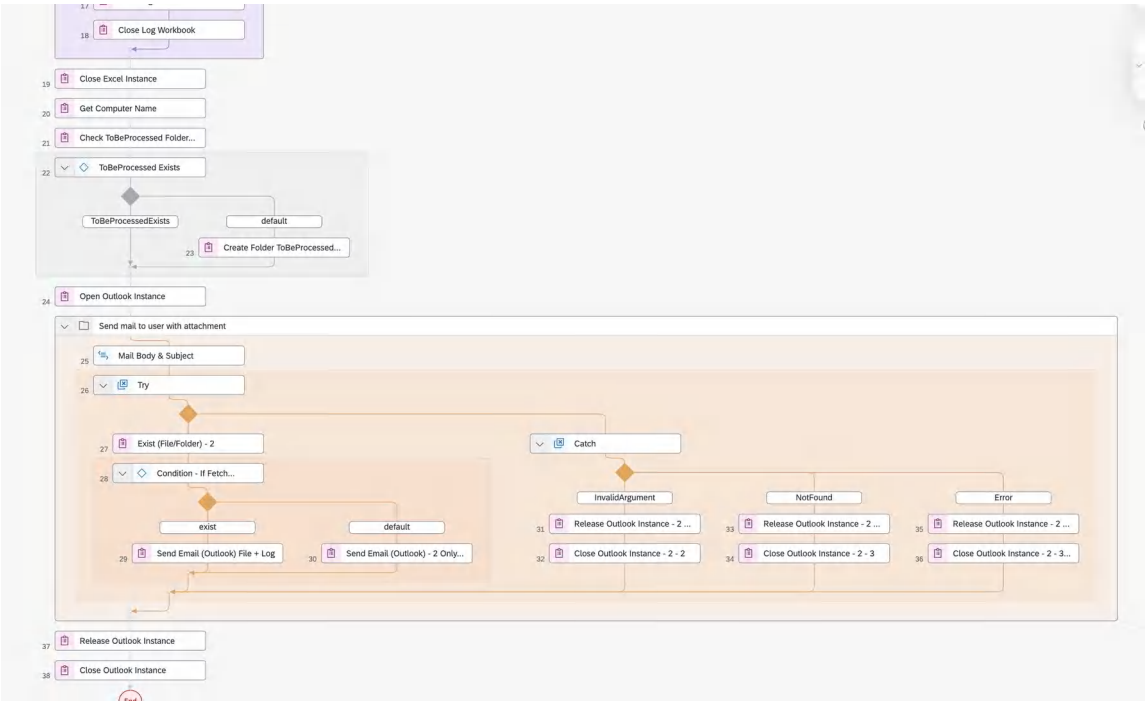
This sub automation moves the fetched records file to the 'FetchedSalesOrders' folder, creates the log file & sends an mail with attachments of the fetched data and log



- Step 1 to 14 : Create ‘FetchedSalesOrders’ folder in root folder if it does not exist. Save the fetched records file to this folder and open the log template file sheet to populate control records

© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.

- Step 15 to 18: Push log file control values to the log template and save to the ‘FetchedSalesOrders’ folder.



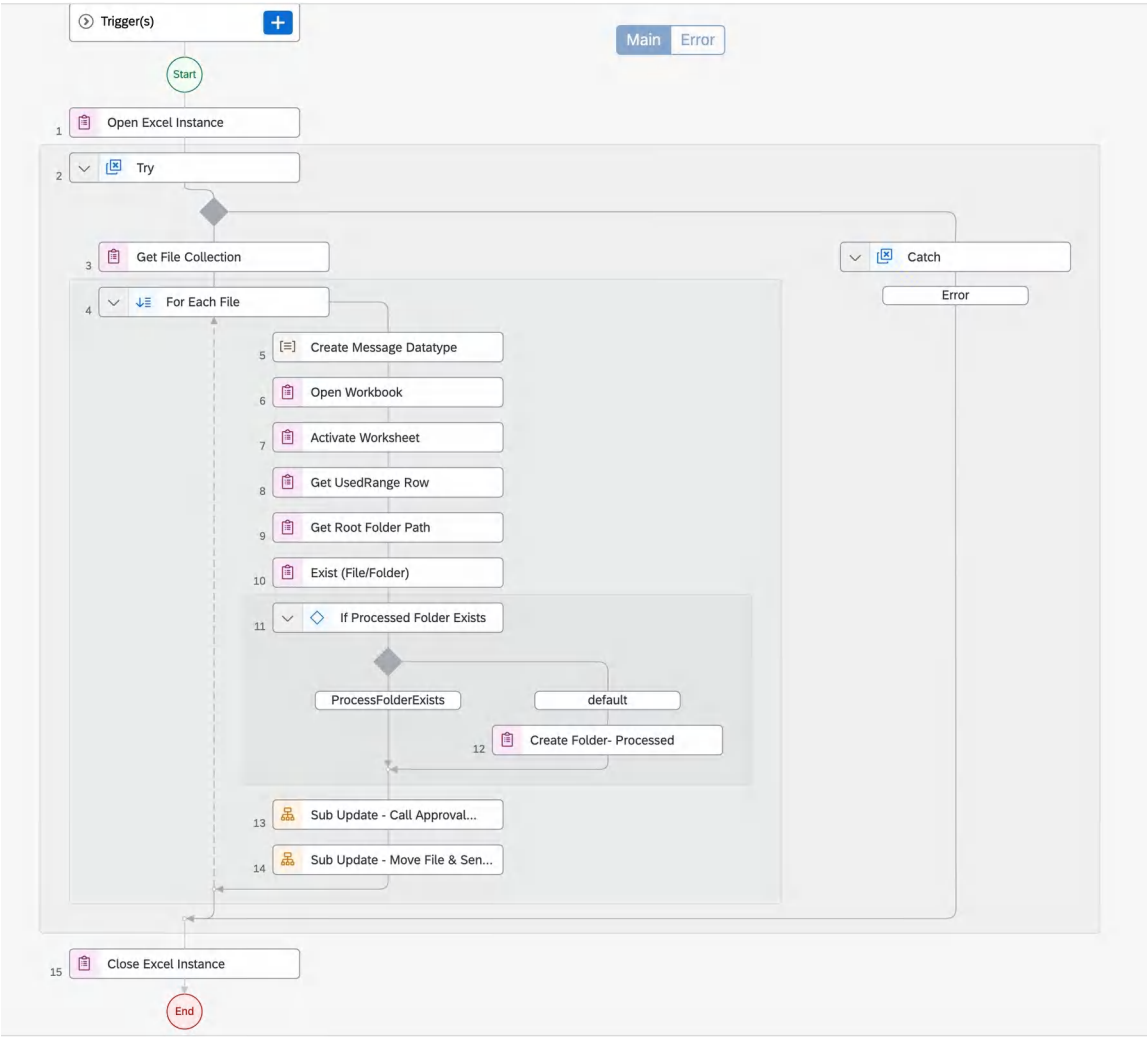
- Step 21 to 38: Create the ‘ToBeProcessed’ folder if it does not exist, Open outlook to send email to the recipient in the selection screen file along with the attachments for the fetched records and log file.

Main Update - S4 With Billing Block From Template

This automation is scheduled to run in an unattended mode via automation trigger at the desired time interval.
It checks the ‘ToBeProcessed’ folder for input files, processes each of them by grouping sales orders with their respective items and then calls the approval process(per sales order) and only once approved, theS/4HANA backend is updated with billing blocks from the updated records file.
It then places the input file from the ‘ToBeProcessed’ folder to the ‘Processed’ folder and sends an email to the defined user along with the relevant attachment.
It contains 2 sub automations:

- Sub Update - Call Approval Process
- Sub Update - Move File & Send Mail

© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.

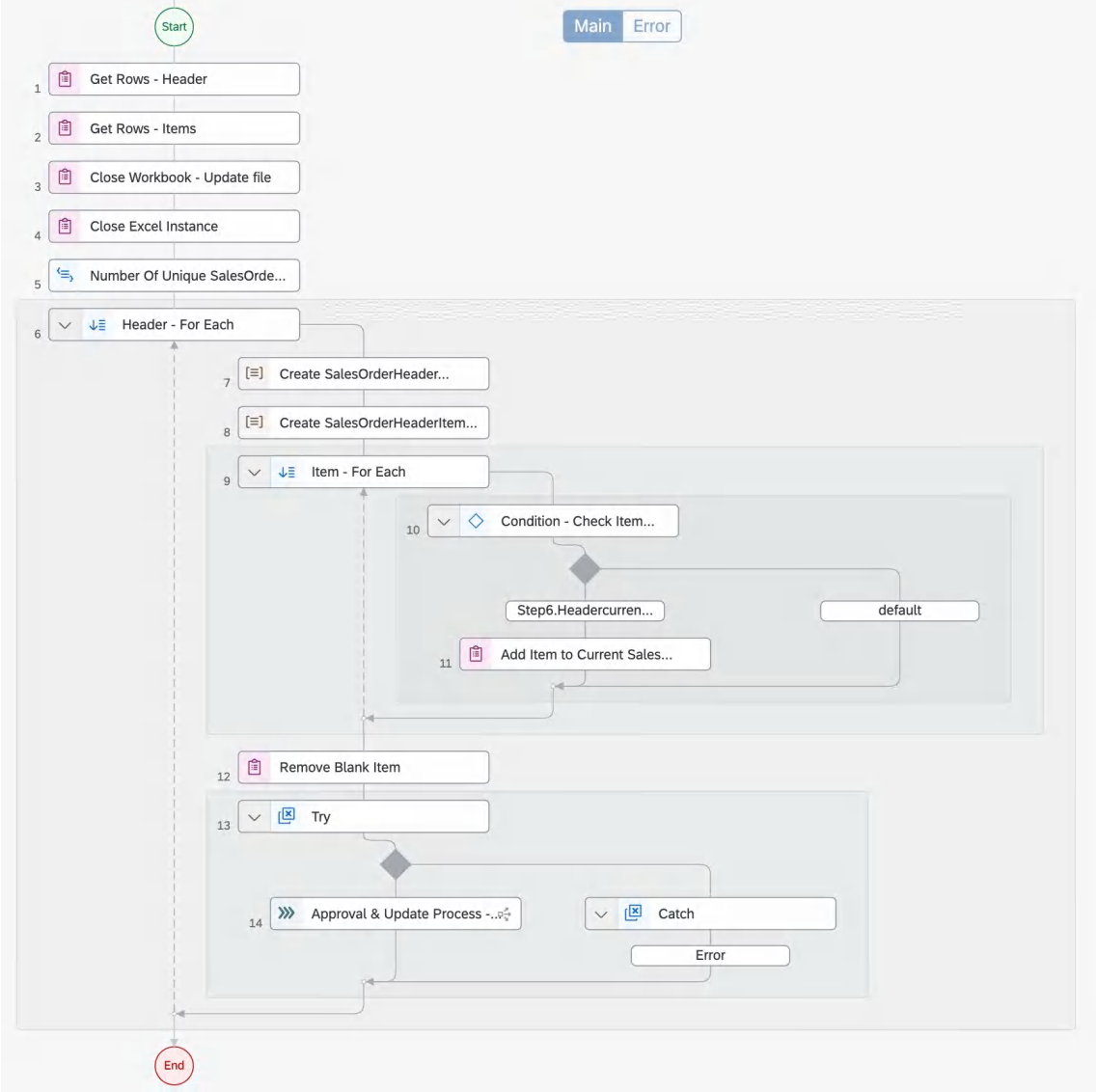


- Step 1 & 2 : Opens an excel instance and gets a list of all files in the ‘ToBeProcessed’ folder
- Step 3: Loop to pass through all files that are to be updated in the ‘ToBeProcessed’ folder
- Step 5 to 10: Opens the update file, activates the ‘Template’ which contains the records and creates the ‘Processed’ folder if it does not exist, to place processed files.
- Step 12: Calls the sub automation to update S/4HANA sales orders with the billing blocks from the records file.
- Step 13: Calls sub automation which moves the processed records file from the ‘ToBeProcessed’ folder to the 'Processed' folder & send mail with attachments.

© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.

Sub Update - Group & Call Approval Process

This sub automation reads the excel records, groups sales orders with respective items and calls the approval process, per sales order, for the actual update of records in S/4HANA depending on if they are approved or rejected.

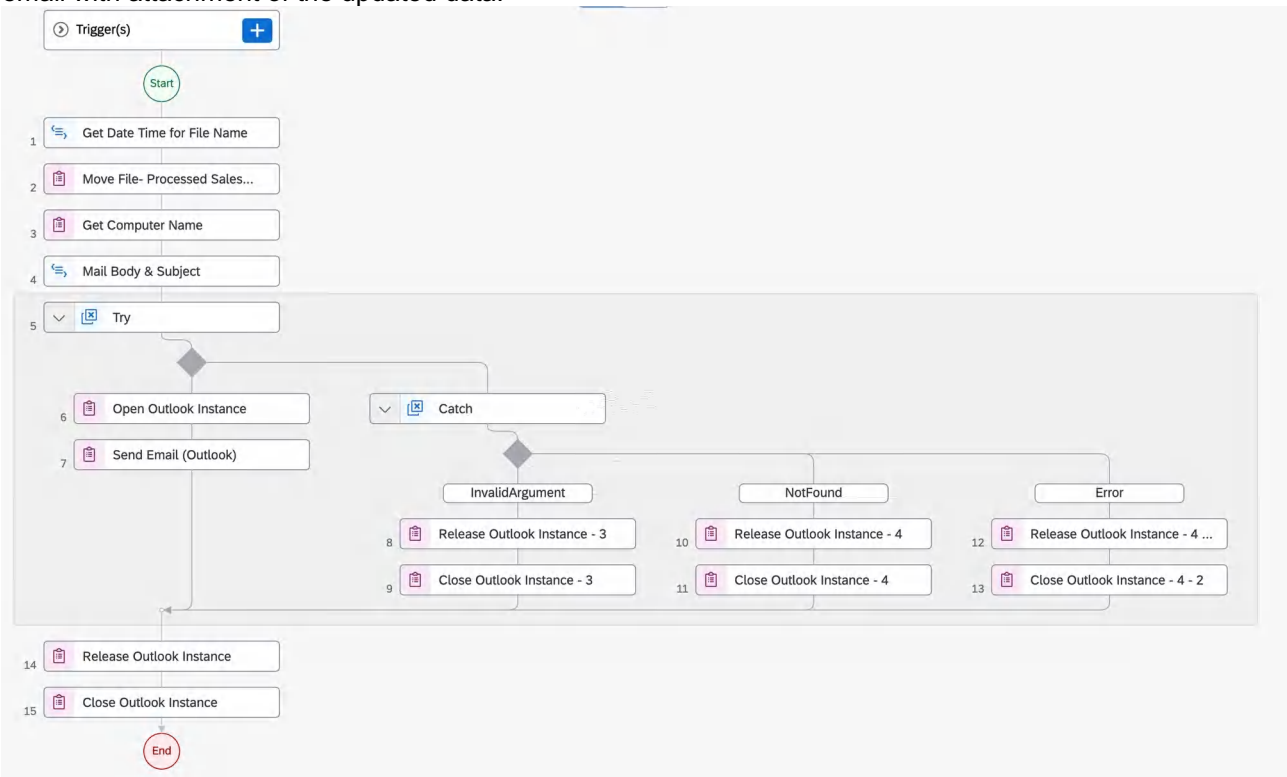


- Steps 5 to 14: Move records to internal table & loop through each unique header & group its corresponding items and call the update process per sales order.

© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.

Sub Update - Move File & Send Mail

This sub automation moves the update records file from 'ToBeProcessed' to 'Processed' folder & sends an email with attachment of the updated data.

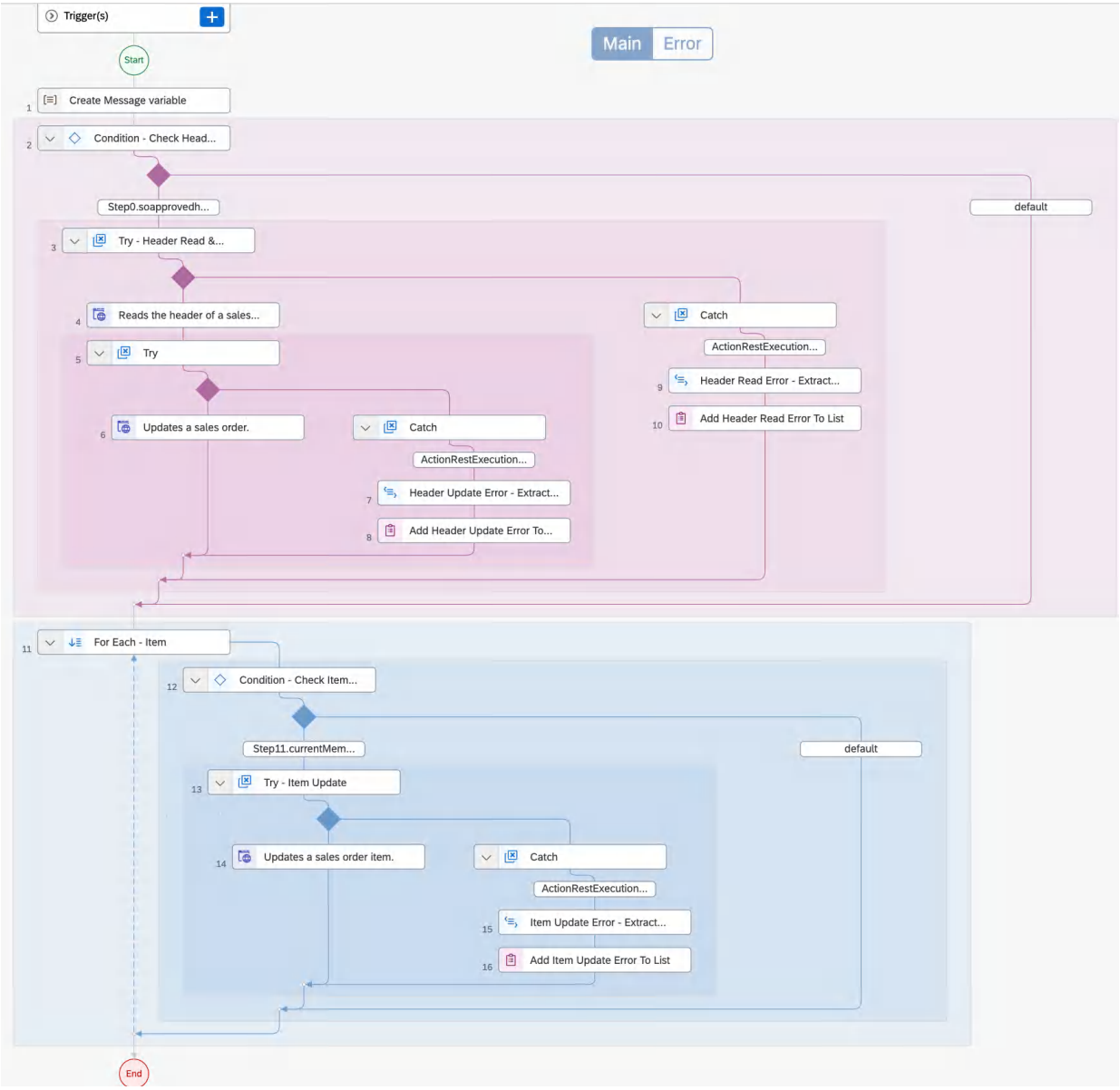


- Step 1 to 15: Moves the record file to the ‘Processed’ folder and send the updated record file as email attachment.

© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.

Update Approved Sales Order & Items

This automation updates S/4HANA with the billing blocks for the approved sales order and its items.

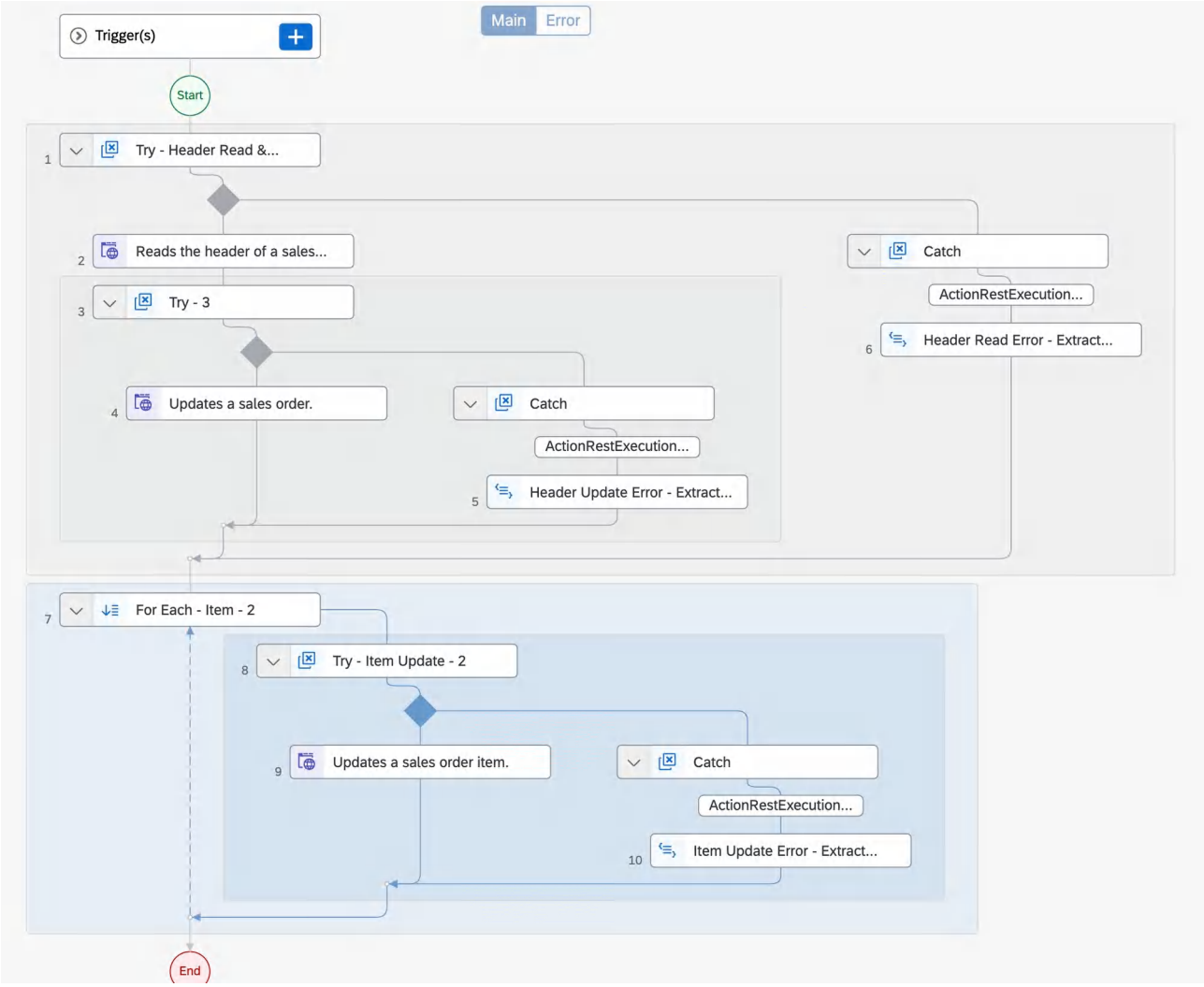


- Step 2 to 6 : Check if sales order header billing block is approved, read sales order header to fetch etag (If-Match) for the header and update header billing block via action.
- Step 11 to 14: For each item, check if it is approved and proceed with update of item billing block via action.

© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.

Auto Update Sales Orders & Items

This automation updates sales orders and its items for which approval is not needed.



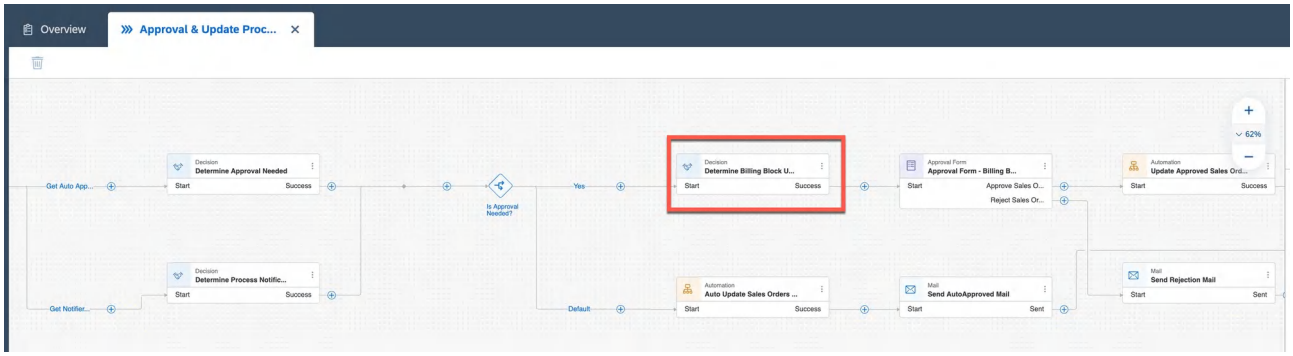
- Step 2 to 4 : Read sales order header to fetch etag (If-Match) for the header and update sales order header billing block via action.
- Step 7 to 9: For each item, update sales order item billing block via action.

© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.

Decisions

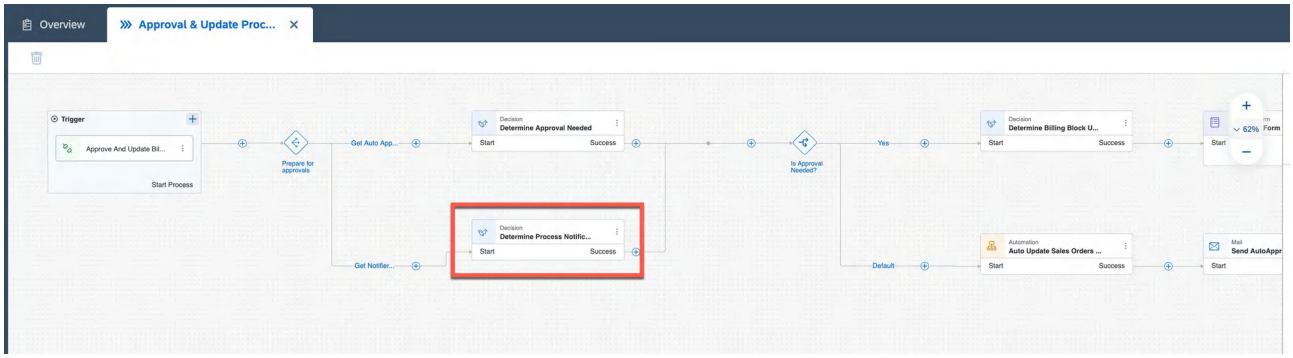
Determine Billing Block Update Approver

This decision is used to determine the approver. By default it uses the header data – Sales Order Type, Sales Organization, Distribution Channel & Organization Division to determine the approver's email address.



Determine Process Notification

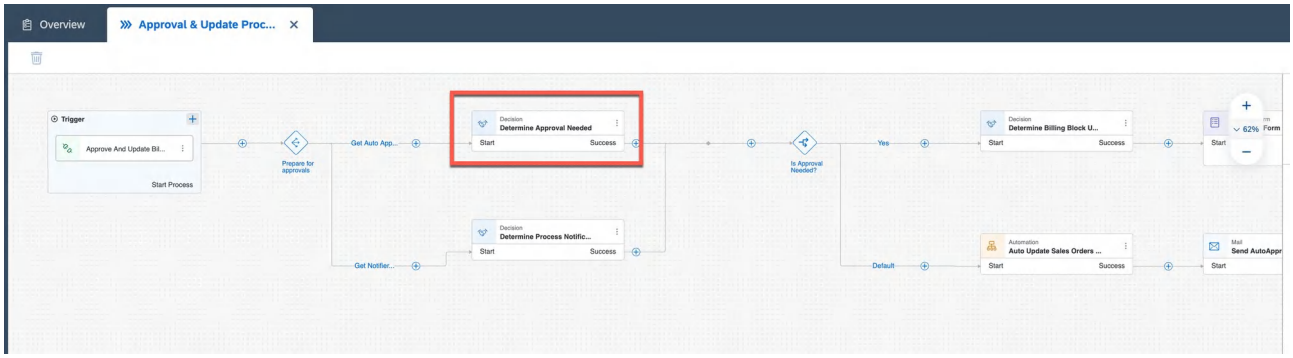
This decision is used to determine to whom a notification email is to be sent to once approval/rejection step is completed. By default it uses the header data –Sales Organization to determine the notification email address



Determine Approval Needed

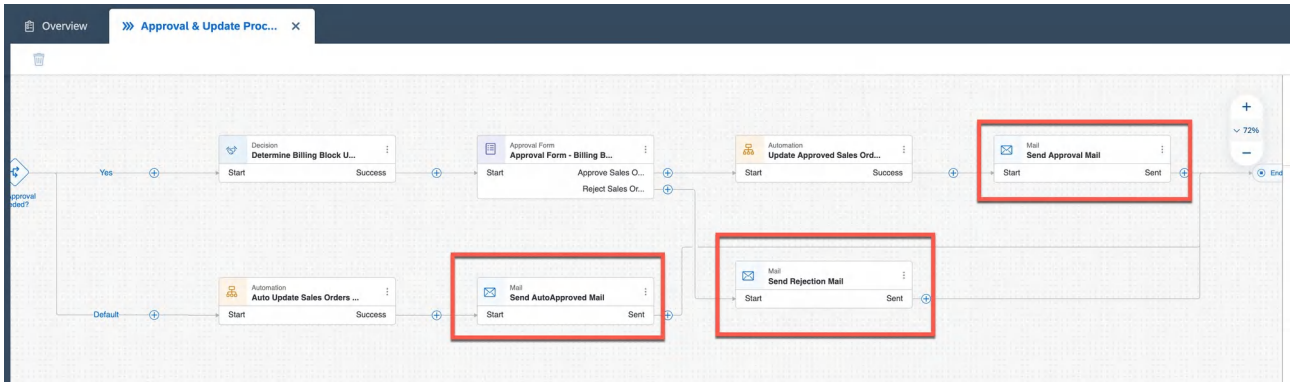
This decision is used to determine if approval process is necessary for the current sales order or not. By default it uses the Sales Organization, Distribution Channel, Sales Order Type and Sold To Party to determine if approval is needed and can be adapted according to business needs.

© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.



Email Notifications

The process contains 3 email tasks, one to notify the user on approval, one for rejection and one for auto-approved email.



Schedule an Automation to run in unattended mode

A scheduled trigger creates jobs that are based on the schedule you define in the trigger. These jobs run fully automatically. The following table provide steps to run the automation in scheduled mode.

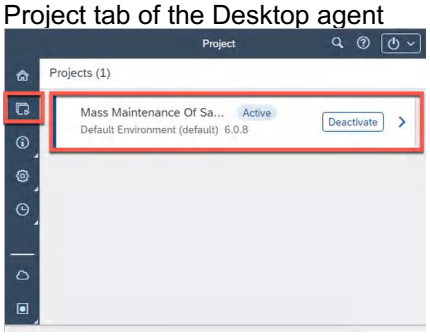
Step	Instruction
Launch Desktop Agent	Launch Desktop Agent. Make sure that the **Unattended** mode is selected in the **Projects** tab of the Desktop Agent.
Open SAP Build Process Automation	Perform the following to release and deploy the task automation: ● Navigate to the **Store** and search for the **Mass Maintenance of Billing Blocks In Sales Orders** package. ● Click **Add** to add the package to the **Lobby**. ● In the **Lobby**, click the project to open the **Overview** page. ● Click **Release** and then click **Deploy**. For steps to release and deploy a project, see the Managing Existing Projects topic.
Add a Scheduled	To add an unattended trigger, refer the Add a Scheduled Trigger topic.

© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.

Step	Instruction
Trigger	**Note**: ● In the **Add Scheduled Trigger** dialog box, click the **Execute** drop-down field and select **Main Update - S4 With Billing Block From Template**. ● Click the **Input Parameter** tab. ● In the **UpdateFilePath** field, enter the 'ToBeProcessed' folder path. For example: C:\Root\Sales Order\Mass Billing Block\ToBeProcessed ● In the **UpdateEmailNotification** field, enter the email of the user who wishes to get notified on completion of the update process
Monitor the Job	Open SAP Build Process Automation and click **Monitor** > **Automation Jobs**. You should see your job in the list. If not, adjust the date range on the Jobs page and refresh the page. For more details, refer the Automation Jobs topic.
Check for Report	After your job status is Complete, verify that documents are moved to the 'Processed' folder and notification emails are sent to the recepient.

Run an Automation in attended mode

An attended trigger creates jobs that are based on the schedule you define in the trigger. These jobs can be triggered by the user from the Desk Top Agent.
The following table provide steps to run the automation in attended mode.

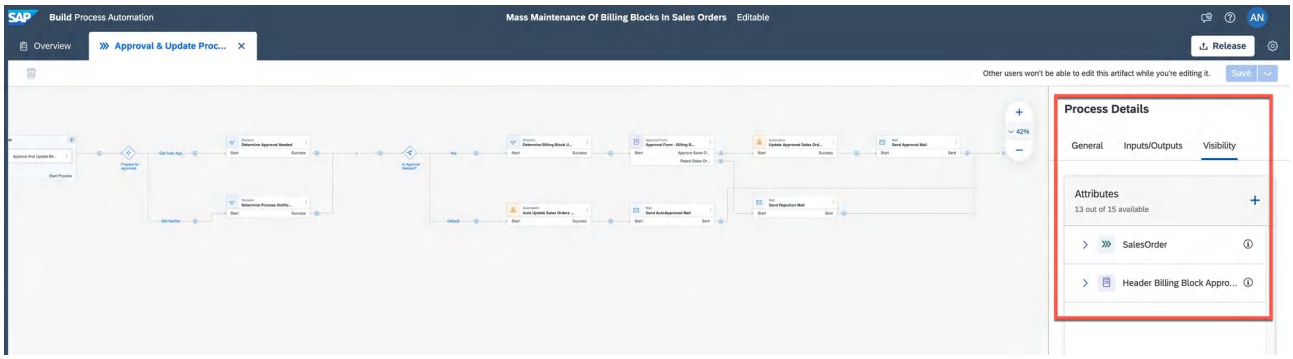
Step	Instruction
Launch Desktop Agent	Launch Desktop Agent, make sure that the **attended** mode is selected in the **Projects** tab of the Desktop Agent.
Open SAP Build Process Automation	Perform the following to release and deploy the task automation: ● Navigate to the **Store** and search for the **Mass Maintenance of Billing Blocks In Sales Orders** package. ● Click **Add** to add the package to the **Lobby**. ● In the **Lobby**, click the project to open the **Overview** page. ● Click **Release** and then click **Deploy**. For steps to release and deploy a project, see the Managing Existing Projects topic.
Add an attended Trigger	To add an attended trigger, refer the Add an Attended Trigger topic. Once the trigger is created for the desired time period, it will be visible in the Project tab of the Desktop agent 

© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.

Step	Instruction
	When triggered from the agent, the folder path of the SelectionScreen folder is to be provided. For example : C:\Root\Sales Order\Mass Billing Block\SelectionScreen
Monitor the Job	Open SAP Build Process Automation and click **Monitor** > **Automation Jobs**. You should see your job in the list. If not, adjust the date range on the Jobs page and refresh the page. For more details, refer the Automation Jobs topic.
Check for Report	After your job status is Complete, verify that the fetched datafiles are available in the 'FetchedSalesOrders' folder along with corresponding log files. Notification emails are also sent to the defined user.

Process Visibility Scenario

The visibility scenario is a dashboard which allows business users to track relevant process KPIs and statuses. A default dashboard is provided with this template, and it can be customized by selecting attributes from your process which you want to track in the process dashboard. You can read more here



Support

There is no support available for the 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 decision 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.

www.sap.com

© 2023 SAP SE or an SAP affiliate company. All rights reserved. See Legal Notice on www.sap.com/legal-notice for use terms, disclaimers, disclosures, or restrictions related to SAP Materials for general audiences.