



PUBLIC

# SAP Build Process Automation **Manage Employee Central Stalled Workflows**

## Configuration & User Guide

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## Change Log

Version	Date	Description
1.0.0	January 30 <sup>th</sup> , 2024	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 a quick overview of the use case, what are high-level components used and how the template works in a nutshell. Prerequisite section provides information of different services of SAP Business Technology Platform that are required to use this template.
2. Configuration Guide: It contains sections which will guide you to setup your
  - (a) SAP Business Technology Platform (BTP) Account with destination.
  - (b) Import and configure the template using SAP Build Process Automation design studio.
3. User Guide: This section provides details about different artifacts that are used in this template like process definition, automations, forms, email notifications etc. to better understand how different capabilities are used in this template.

**Note:**

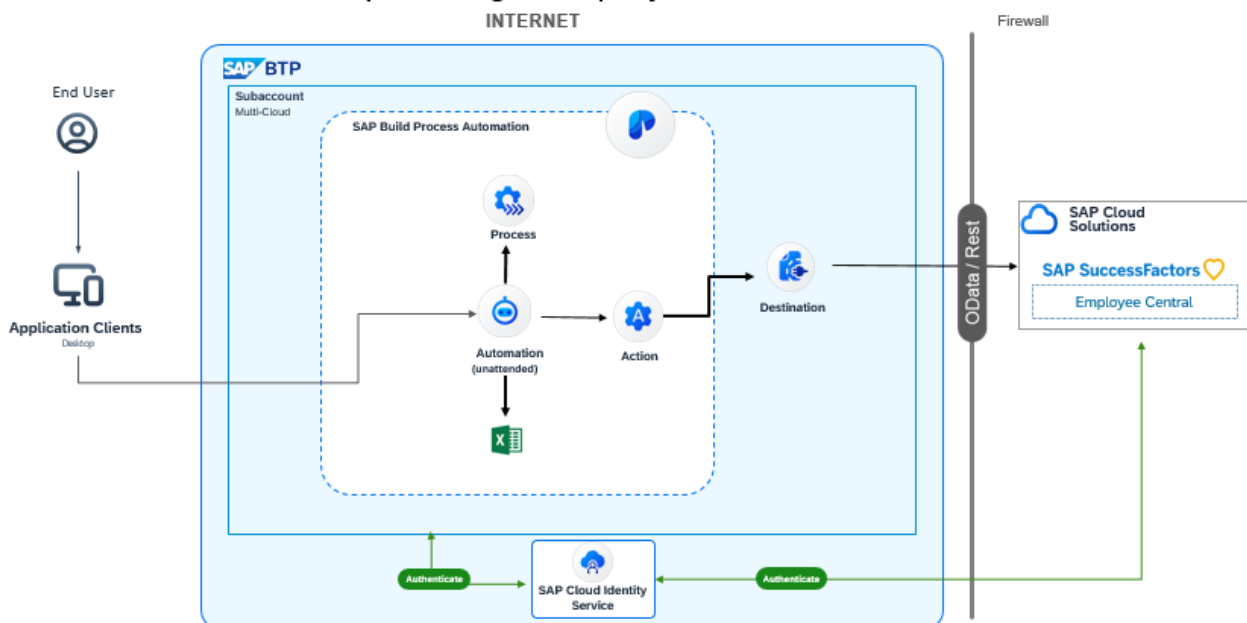
- This documentation is not a detailed guide to set up SAP Business Technology Platform services. It assumes that the IT admin who is setting the content is skilled with SAP Business Technology Platform environment. The Configuration section must be mandatorily followed to import and configure the template.
- 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, SAP Integration Suite, and its capabilities.

## Overview

The "**Manage Employee Central Stalled Workflows**" process streamlines and automates the process of managing Employee Central (EC) workflows stalled, through SAP Build Process Automation within SAP SuccessFactors.

It does so by getting input from the end user on what action to be performed on the stalled workflow. Upon successful completion of the process, workflow will be either declined, or moved to valid approvers. This end-to-end process not only reduces manual data processing but also enhances the speed and efficiency of the business process.

**Solution Diagram:**



The following steps are included in **Manage Employee Central Stalled Workflows** template:

- The template uses below APIs:
  - **Workflow API**
    - **GET Method: /WfRequest** - To retrieve the workflow requests.
    - **POST Method: /changeWfRequestApprover** - To change workflow approver.
    - **POST Method: /rejectWfRequest** - To decline the workflow.

More information can be found in [ECWorkflow/overview](#)

- **User Management API**
  - **GET Method: /User** – To retrieve employee details.

More information can be found in [PLTUserManagement/overview](#)

- **Position Management API**
  - **GET Method: /Position** - To retrieve employee's position details.

More information can be found in [ECPositionManagement/overview](#)

- **Employment Information API**
  - **GET Method: /EmpJob** - To retrieve employment details of the employee.

More information can be found in [ECEmploymentInformation/overview](#)

- This template works only for managing the workflow which is stalled. End user can choose any of the below mentioned actions that need to be performed on stalled workflow.
  1. Decline Workflow
  2. Change Approver To Supervisor
  3. Change Approver To Incumbent To Parent Position

#### **Important Note:**

- All pending workflows beyond the number of days mentioned in the input parameter **"DaysPassedGreaterThan"** in scheduled trigger by the user will be considered as stalled workflows. To prevent misuse, the process allows configure only 3 days or more than 3 days with current approver. Configuring less than 3 days will send an error notification to the user. The restriction of 3 days can be configured in the process as per the user requirements.
- Choosing **"Decline Workflow"** action will decline all the stalled workflows irrespective of valid or invalid approver.
- Choosing **"Change Approver To Supervisor"** action will reassign the workflow to the supervisors of invalid approvers. No action will be taken if the approver is valid.
- Choosing **"Change Approver To Incumbent To Parent Position"** action will reassign the workflow to the incumbent to parent position of invalid approvers. No action will be taken if the approver is valid.
- **Start Process: "Fetch Pending Workflow"** automation will be scheduled to run the process automatically in unattended mode, with notifier e-mail, folder path where log reports to be saved, number of days(the workflows beyond the mentioned days will be considered as stalled workflow) and action to manage the workflows in the input parameter of trigger. No action required from end user to start the process.
- **Read operation:** Automation fetches the pending workflow from the SAP SuccessFactors system which has status as **"PENDING"**.
- **Update operation:** Automation either declines the workflow or determines to move the workflow to supervisor or incumbent of parent position of invalid approver based on action selected by end user in the SAP SuccessFactors system.

- **Email Notification:** Bot will be sent to requestor/end user upon:
  - Successful execution of automation.
  - Any errors occur during the process execution.

This structured process ensures that the process moves through an efficient and automated workflow. This reduces the issues in managing stalled workflow of the SAP SuccessFactors Employee Central workflow.

## Prerequisites

The following SAP Business Technology Platform services are required to consume the content package in the SAP SuccessFactors:

- SAP Build Process Automation to orchestrate the process.
- SAP Cloud Identity Services - Identity Authentication (Optional)
- SAP Connectivity service to establish access to the SAP SuccessFactors system.

More information about SAP Build Process Automation can be found [here](#).

## Other Prerequisites

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

- SAP Desktop Agent 3.23.45 or higher
- Excel & Outlook application should be configured on the system where the automations will run to generate and send the excel report to end user.
- SAP SuccessFactors Technical user must have the '**System Admin**' role.

## Process Flow

### 1) Scheduled Automation Trigger

The bot is scheduled to automatically run without human intervention.

### 2) Read The Pending Workflow Data

"**Fetch Pending Workflow**" automation is automatically triggered. The automation retrieves the pending workflow data from the SAP SuccessFactors.

### 3) Iterating Through Pending Workflow Data

For each pending workflow, the automation either declines the workflow or determines and moves the workflow to supervisor of invalid approver or moves the workflow to incumbent of parent position of invalid approver based on the action provided by the end user while scheduling the trigger.

#### a) Decline Workflow:

"**Decline Stalled Workflow**" automation is triggered if the user chooses to decline workflow irrespective of status of the approver.

#### b) Move Workflow To Supervisor:

"**Move Workflow To Supervisor**" automation is triggered if user choose to move the workflow to supervisor if the approver is invalid.

#### c) Move Workflow To Incumbent Of Parent Position:

"**Move Workflow To Incumbent**" automation is triggered if user chooses to move the workflow to incumbent of parent position if the approver is invalid.

### 4) Save The Response And Send Mail Notification

Depending on the overall status of the process, a report will be generated and sent to the requestor.

Sample excel file with the generated logs is as shown below:

	A	B	C
1	Status	Workflow Request Id	Message
2	success	6351	Approver have been changed successfully
3	success	6303	Approver have been changed successfully
4	success	6304	Approver have been changed successfully
5	Fail	6682	Current manager details are not available
6	Fail	6683	Current manager details are not available

## Configuration Guide

Manage Employee Central Stalled Workflows template requires SAP Build Process Automation subscription.

Follow the [setup and configuration section](#).

### Creating Technical user

This template requires technical user credentials that need to be used while creating destination. The following steps are carried out by professional service consultants who have super admin users in the provisioning system of the SAP SuccessFactors Employee Central.

1. Log on to the provisioning system of the SAP SuccessFactors Employee Central.
2. Choose the **Company Name** used by the SAP SuccessFactors Employee Central and select **Edit Company Settings**.
3. In the **Web Service** section, mark the checkbox for **SF Web Service**, **SFAPI**, **SFAPI Ad hoc Feature** and **Employee Central API** as mentioned in the below screen shot.
4. Save your changes.

#### Web Services

- SF Web Service
- DocSearch Web Service
- User Web Service
- SOAP RPC Servlet
- SFAPI (Warning: SFAPI is a legacy API technology. Please don't use SFAPI anymore. Instead please use OData API)
- SFAPI Ad hoc Feature (Warning: SFAPI is a legacy API technology. Please don't use SFAPI anymore. Instead please use OData API)
- Inform Ad hoc Web Service [Not Ready for Sales/Production]
- Employee Central SOAP API
- Disable OData API

Save

5. In the **Create Admin User** section, enter the username and password of the technical user. You should also fill in all other fields such as first name, last name, and email address. Click **Create Admin**.
6. The technical user has now been created. You can log off from the provisioning system.

## Setup SAP Business Technology Platform Cockpit

### Destination Configuration

#### Configure SAP SuccessFactors Destination

To access the SAP SuccessFactors for read and update operations, an HTTP destination is required in the SAP BTP account where the SAP Build Process Automation is subscribed.

##### Create a destination with Basic Authentication.

Make sure the communication user has the appropriate communication strategy to manage stalled workflow in the SAP SuccessFactors.

##### Destination with Basic Authentication

Name	<Manage Stalled Workflow>
Type	HTTP
Proxy Type	Internet
Authentication	Basic Authentication
URL	Example: https://{api-server}/odata/v2
Username	<username> of the SAP SuccessFactors Technical User
Password	<Password> of the SAP SuccessFactors Technical 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 the requestor in the process. Follow the instructions to set up mail destination in your SAP BTP Account.

Configuring destination, see [Configure a SMTP Mail Destination](#).

For more information refer to [Create HTTP Destinations](#)

**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 “**Manage Employee Central Stalled Workflows**”
- 4) Select the “**Create from Template**” button to add the template into your lobby.

After successfully adding the template, navigate back to the lobby to find the “**Manage Employee Central Stalled Workflows**” project available for use.

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

## Configure Agent Management Settings

This configuration is required to execute the Process with Automation. Kindly follow the steps explained [here](#).

## 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.

## Configure Process

There is no configuration needed in the process if you want to restrict pending workflows for the first 3 days with current approver to be consider as stalled workflow. But you can extend it based on your requirements by making changes to the “**Fetch Pending Workflow**” automation.

To edit the automation:

- Double click on the **Fetch Pending Workflow** automation.
- Click on **step 2** in the flow named as **Stalled Workflow Data**.
- In the **parameter** tab change the **RestrictedDays** to the required number of days.
- Click on **Save**.

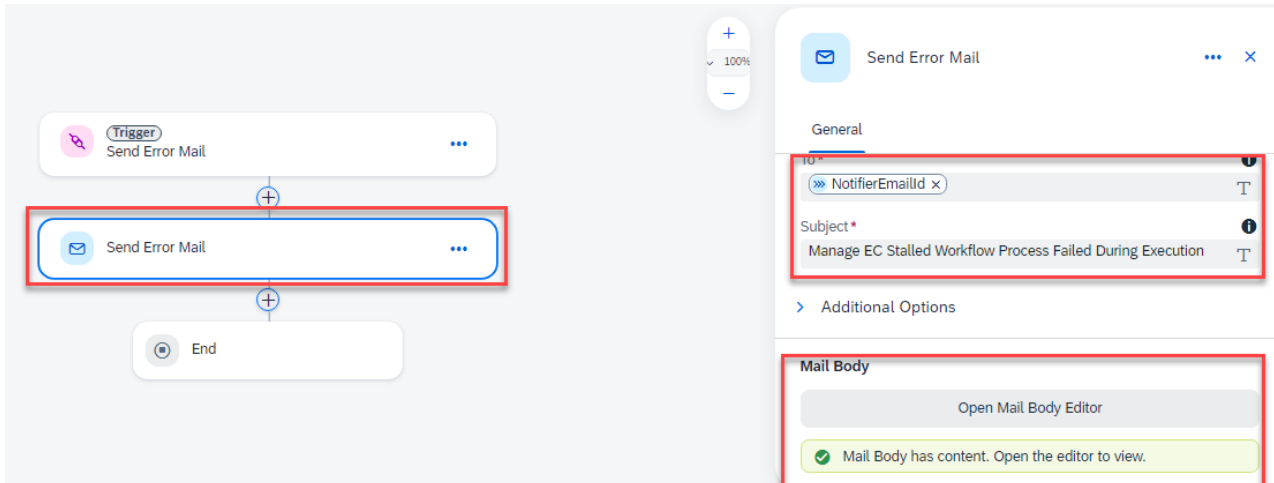
The screenshot displays the SAP workflow configuration interface. On the left, a process flow diagram is visible with several steps: 1. Get Workflow Data List, 2. Stalled Workflow Data (highlighted with a red box), 3. Condition, 4. Get Entities From Workflow..., 5. Check Stalled Workflow..., and 6. Check for Data. On the right, the 'Custom script' configuration panel is open, showing the 'Parameters' tab. The 'Input Parameters' section includes 'NoOfDaysStalled:\*' set to '0 StalledDaysOfWorkflow' and 'RestrictedDays:\*' set to '3' (highlighted with a red box). The 'Output Parameters' section shows '2 StalledDate'. An 'Edit Script' button is located at the bottom of the panel.

## Configure Email

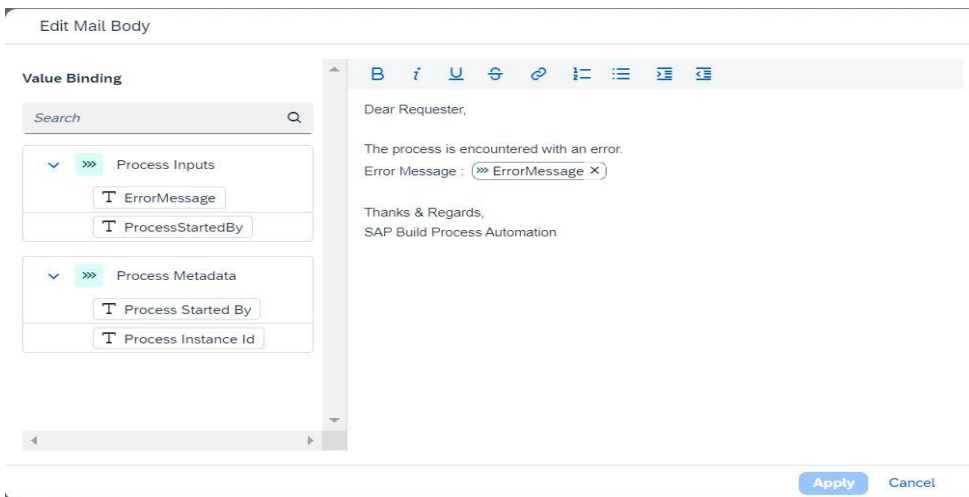
Email notifications are sent to requestors after task execution. All the email artefacts in the process have default template body which can be changed.

To update the email body content, do the following:

- Select the mail artifact 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 on 'Open Mail Body Editor'.

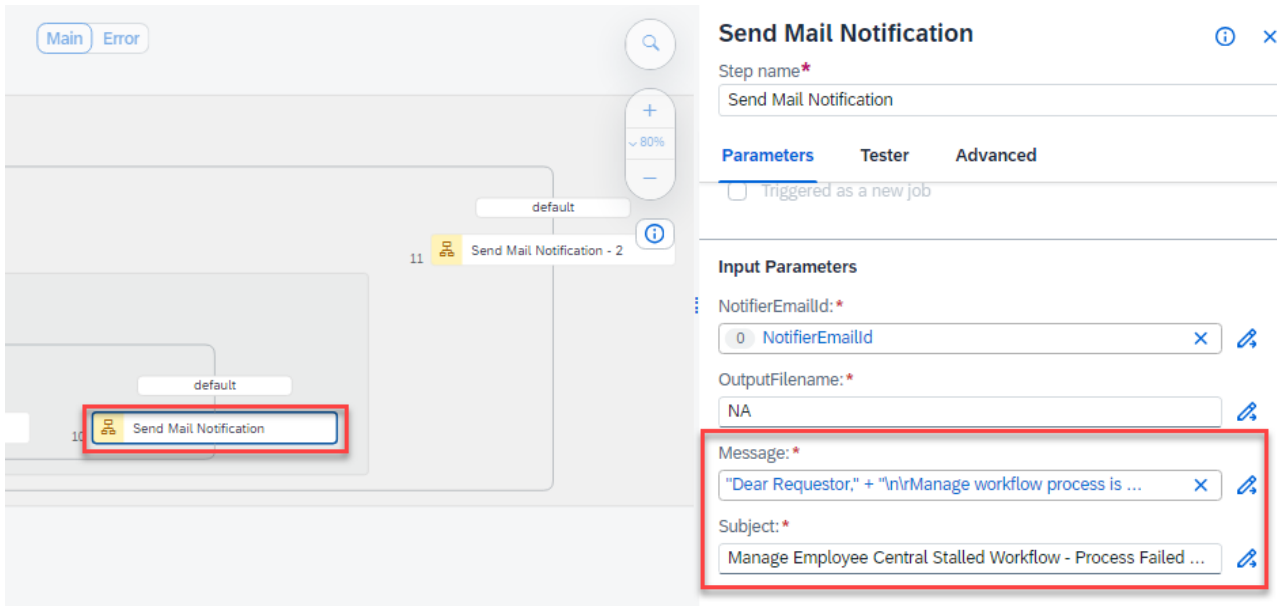


The mail editor allows you to write and adjust text according to your needs. You can also reuse information that has been collected during the process. If you want to use additional process context data, you can simply drag the fields from the left menu to the editor on the right.



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 can be modified accordingly as per your need.

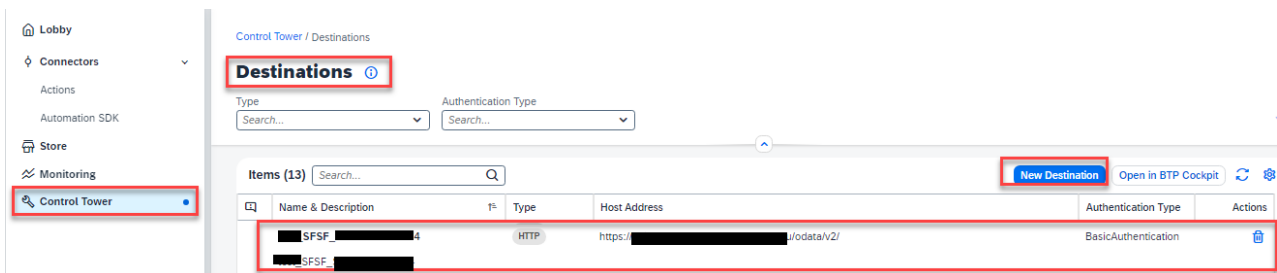


## Configure Destination Settings

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

To configure destination:

- Click on **Control Tower**.
- Select **Destinations** from the right panel.
- Click **New Destination**
- Select the destinations to be added.



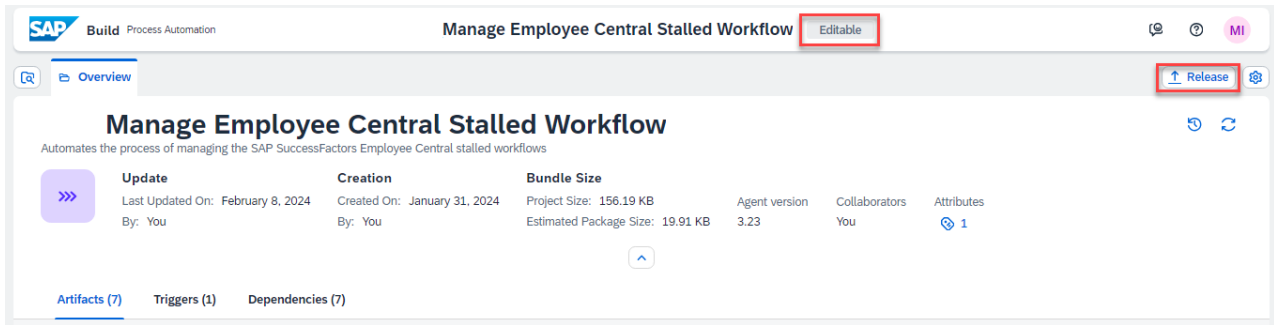
## Release and Deploy Process

After configuring your process, it is time to publish, evaluate 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 cannot 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**'.

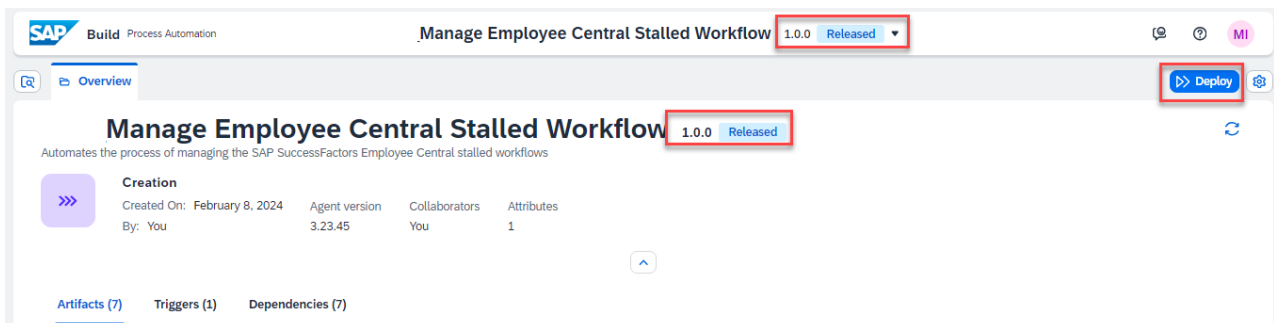


If this is the first time you have released the process, a version labelled 1.0.0 is released. For subsequent releases, you are prompted to select a version type before the process is released.

**Deploy** – This takes a released version of a process and enables it to be actively run and monitored. A deployed version of this process triggers automation, allowing managing of employee central stalled workflow and sending out a successful email to the end user.

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 artifact, please read our [documentation](#).

## User Guide

### Capabilities

This template content contains the following key artifacts:  
Please refer to [help documentation](#) about these different artifacts.

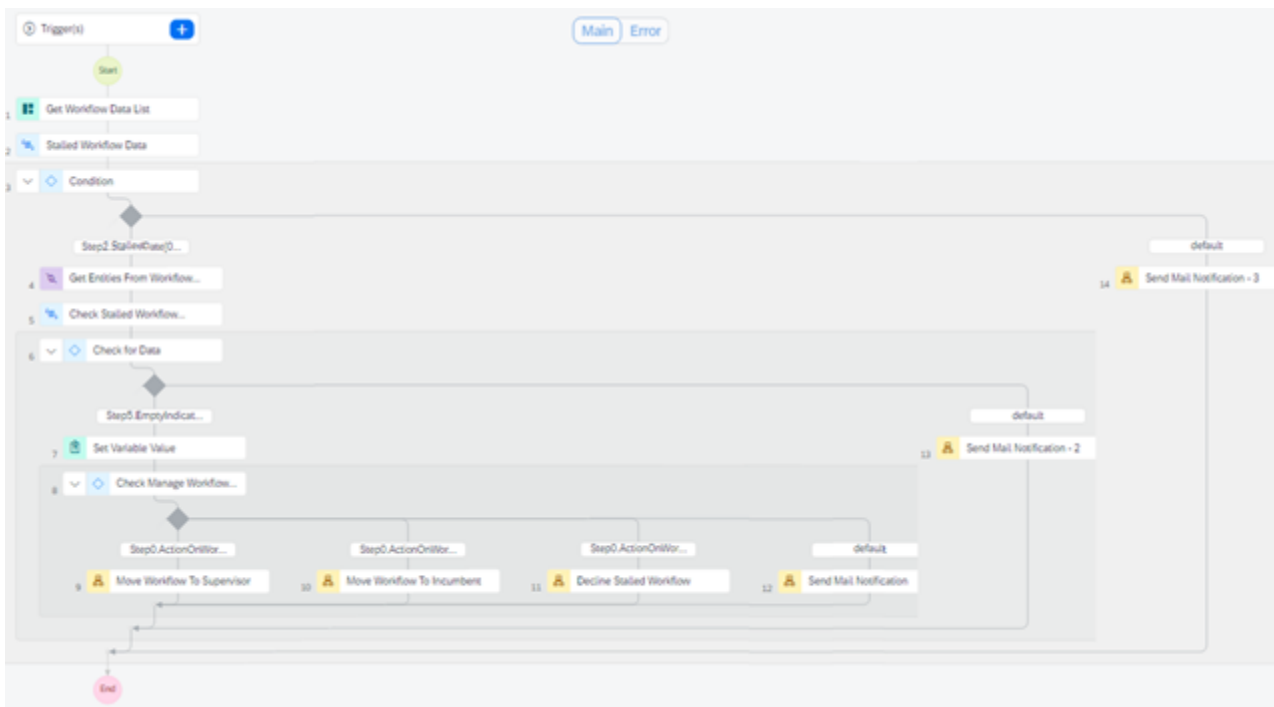
Icon	Type	Name	Description
	Automation	Fetch Pending Workflow	Main automation to fetch the list of pending workflows in the SAP SuccessFactors and manage stalled workflow with the required action.
	Automation	Move Workflow To Supervisor	Automation to change the workflows to the supervisor of invalid approver in the SAP SuccessFactors. If there are any errors during

			execution, it will return an error message with reasons for the failure.
	Automation	Move Workflow To Incumbent Parent Position	Automation to change the workflows to incumbent of parent position of invalid approver in the SAP SuccessFactors. If there are any errors during execution, it will return an error message with reasons for the failure.
	Automation	Decline Stalled Workflow	Automation to decline the stalled workflows in SAP SuccessFactors irrespective of valid or invalid approver. If there are any errors during execution, it will return an error message with reasons for the failure.
	Automation	Generate Excel Report	Automation to generate excel report for each workflow being processed for managing workflows in SAP SuccessFactors. If there are any errors during execution, it will return an error message with reasons for the failure.
	Automation	Send Mail Notification	Automation to send generated excel report to end user through an email.
	Process	Send Error Notification	Process to send error notifications to the end user during the execution of process.

## Automations

### Fetch Pending Workflow

Automation to fetch the list of pending workflows to manage stalled workflows in the SAP SuccessFactors.



Step 1: Create a variable to store list of stalled workflows pending for approval.

Step 2: Populate data required for filtering the stalled workflows.

Step 3: Check if the number of days mentioned to fetch stalled workflows is valid.

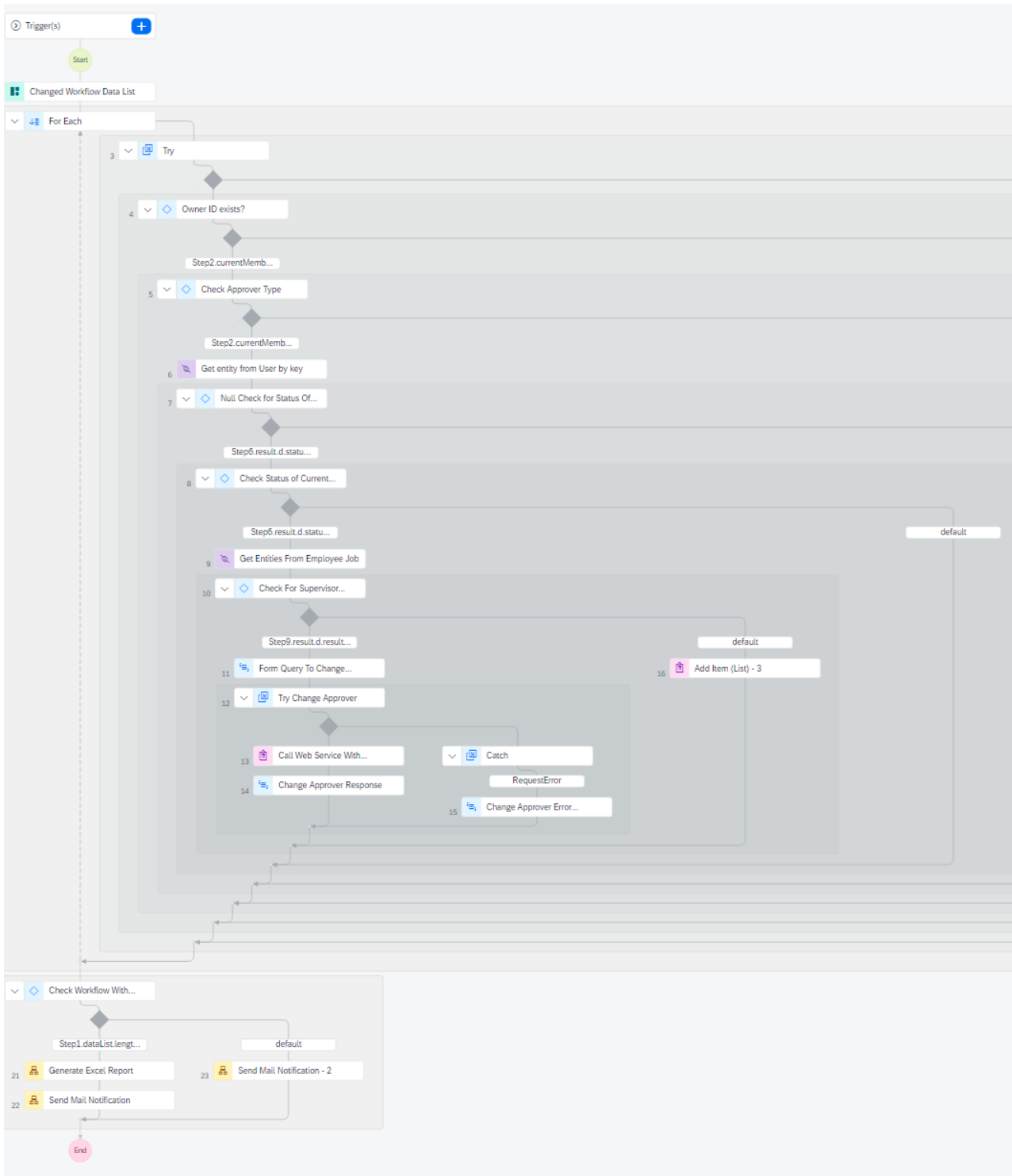
Step 4: Fetch the pending workflows from the SAP SuccessFactors, based on the days specified in the unattended trigger.

Step 5 to Step 11: Triggers respective sub automations to change the approver or decline the workflow as per the input provided by the requestor if there is pending workflow available.

Step 12 to Step 14: Send mail notification if there are any errors during the execution of the process.

## **Move Workflow To Supervisor**

Automation to fetch the status of current approver and determine whether the approver is valid or not. If not, then get the supervisor id of current approver and change the workflow approver to the supervisor of the current approver in the SAP SuccessFactors.



Step 1: Create a variable to store workflow data.

Step 2 to Step 10: For each pending workflow, check if the approver is assigned and the status of the approver. If the status of the approver is invalid, then find the supervisor of the approver to proceed with the next steps to change the approver.

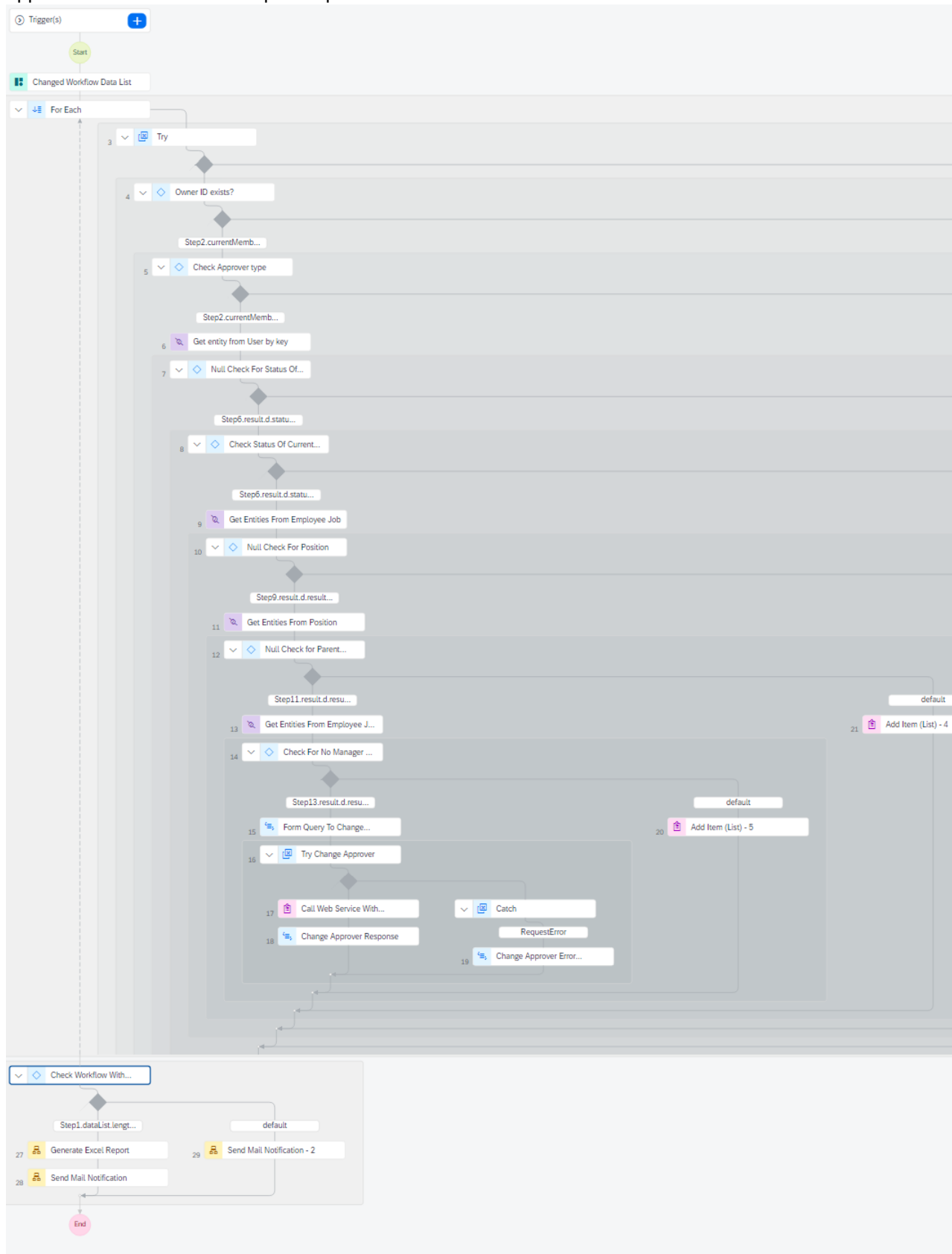
Step 11 to Step 15: Creates request and change the approver of workflow in the SAP SuccessFactors.

Step 16 and Step 19: Log errors if any data is missing to form the approver change request.

Step 20 to Step 23: Send summary of the process execution to the requestor.

## Move Workflow To Incumbent Parent Position

Automation to fetch the status of assigned user status of pending workflow and determine whether the approver is valid or not. If not, then get the manager id of parent position of assigned user and change the approver to the incumbent of parent position in the SAP SuccessFactors.



Step 1: Create a variable to store workflow data.

Step 2 to Step 14: For each pending workflow, check if the approver is assigned and the status of the approver. If the status of the approver is invalid, then find the incumbent of the parent position to proceed with next steps to change the approver.

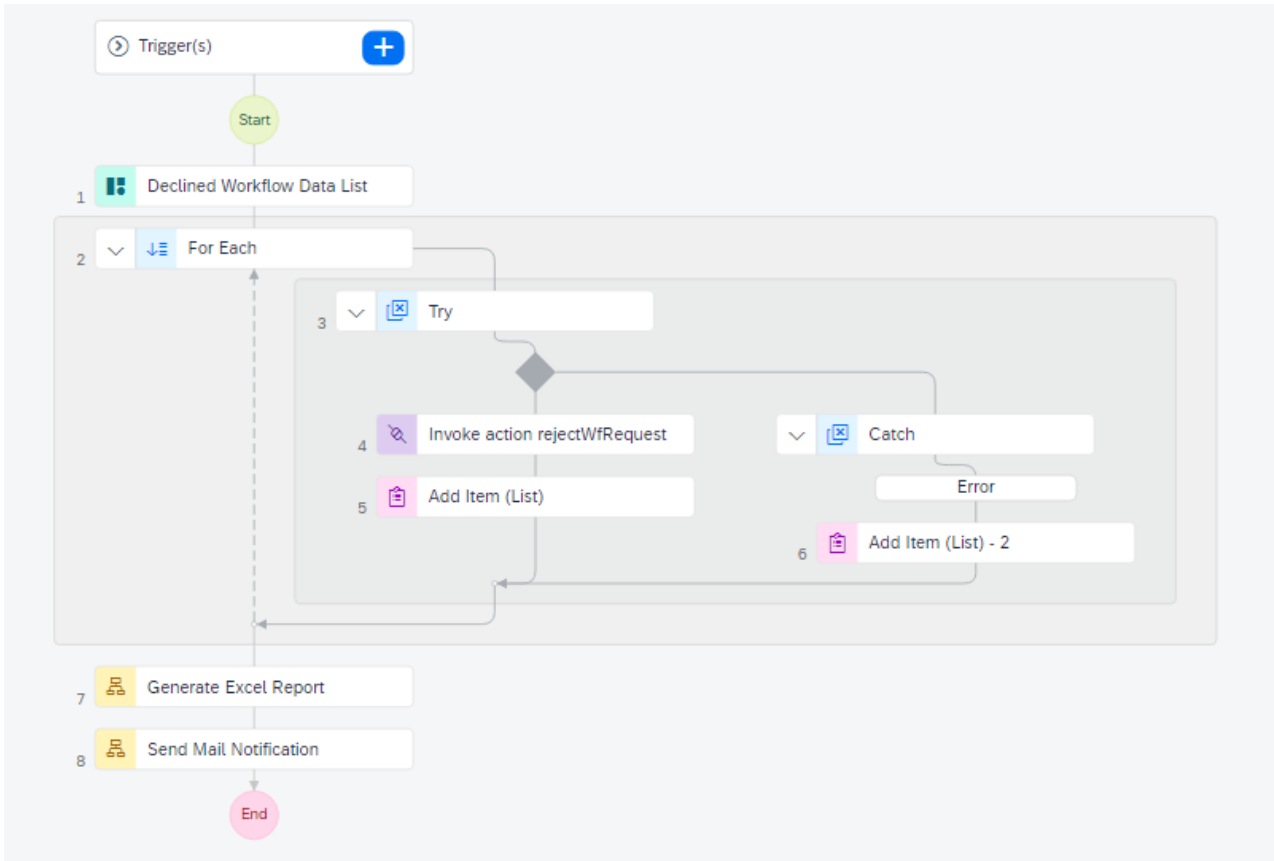
Step 15 to Step 20: Creates request and changes the approver of workflow in the SAP SuccessFactors.

Step 21 and Step 25: Log errors if any data is missing to form the approver change request.

Step 26 to Step 29: Send summary of the process execution to the requestor.

## Decline Stalled Workflow

Automation to decline the pending/stalled workflow in the SAP SuccessFactors based on the option selected by requestor.



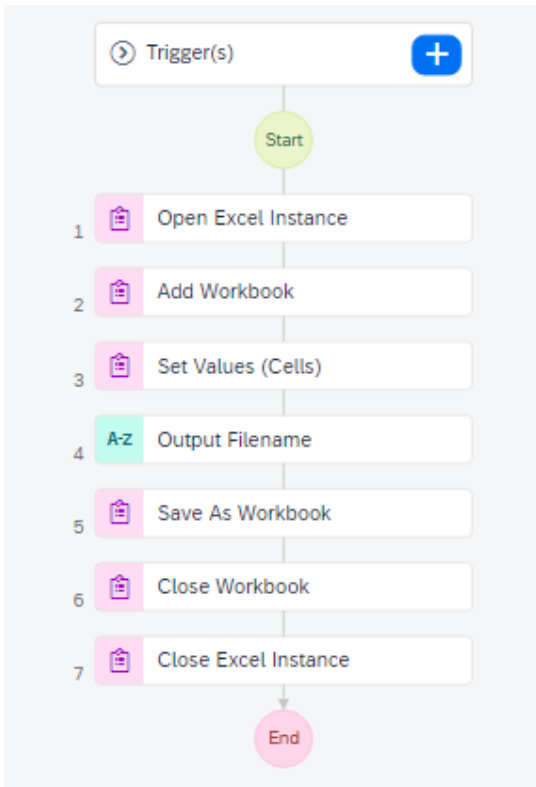
Step 1: Create a variable to store workflow data.

Step 2 to Step 6: For each pending workflow, Decline the workflow in the SAP SuccessFactors by passing workflow request id and logging the response.

Step 7 to Step 8: Send summary of the process execution to the requestor.

## Generate Excel Report

Automation to generate the excel report.

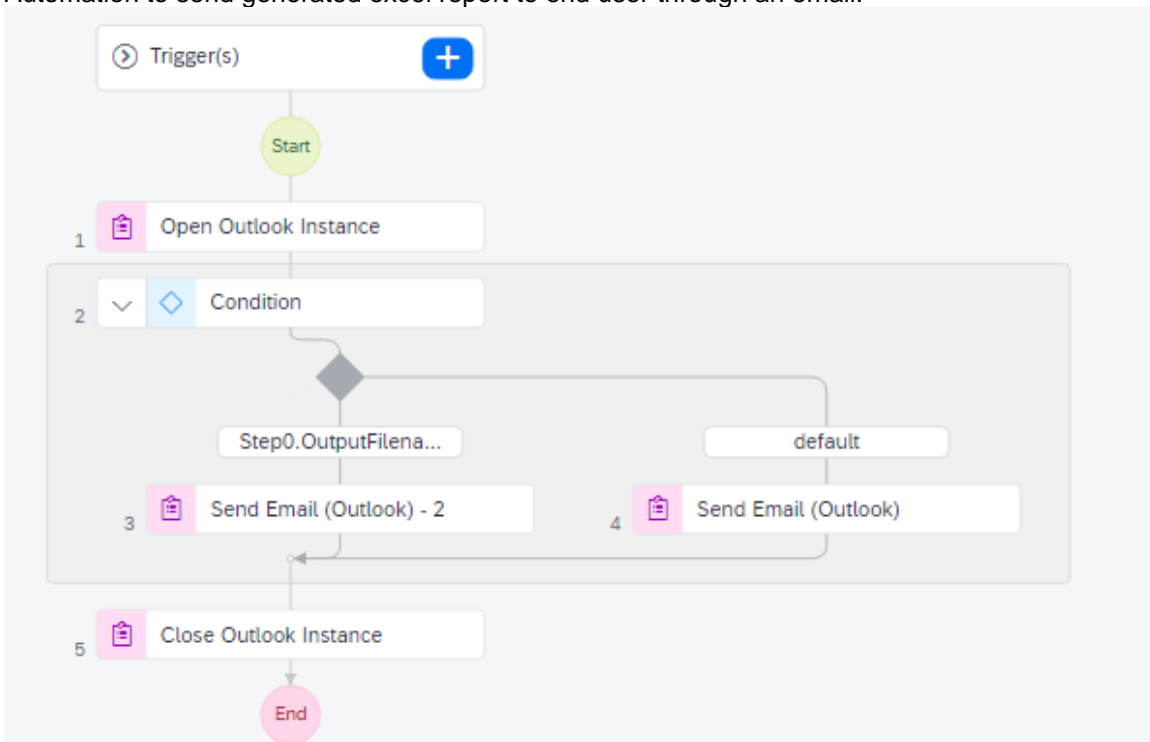


Step 1 to Step 2: Opens excel instance and adds the workbook.

Step 3 to Step 7: Set the status, workflow request id and message for each record in excel sheet. Save the file and close the excel workbook and excel instance.

## Send Mail Notification

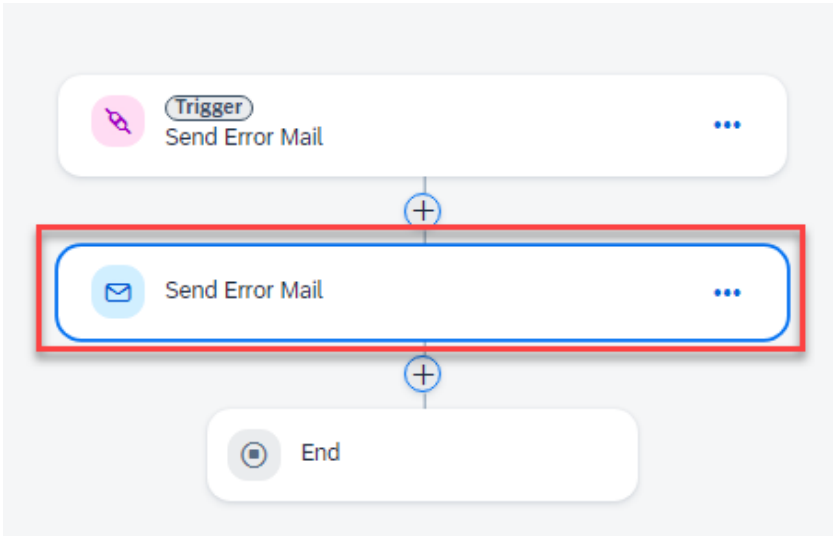
Automation to send generated excel report to end user through an email.



Step 1 to Step 5: Send an email notification to the requestor upon completion of the process.

## Email Notifications

The process contains an email task to send mail notification to the requester, if any error occurs during the execution of automation.



## 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 provides 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	<p>Perform the following to release and deploy the task automation:</p> <ul style="list-style-type: none"> <li>• Navigate to the Store and search for the <b>Manage Employee Central Stalled Workflows</b> package.</li> <li>• Click <b>Add</b> to add the package to the Lobby.</li> <li>• In the Lobby, click the project to open the Overview page.</li> <li>• Click Release and then click Deploy.</li> </ul> <p>For steps to release and deploy a project, see the <a href="#">Managing Existing Projects</a> topic.</p>
Add a Scheduled Trigger	<p>Add an unattended trigger to <b>“Fetch Pending Workflow”</b> automation. Under input parameter update “NotifierEmailID”, “LogFilePath”, “DaysPassedGreaterThan” and “ActionOnWorkFlow” which are mandatory fields.</p> <p>For the ease of the user, kindly have the below message in the description of the trigger as shown in the screen shot.</p> <p><b>Message:</b></p> <div style="border: 1px solid black; padding: 5px;"> <p>Enter corresponding number in the 'ActionOnWorkFlow' field under the 'Input Parameter' tab for the desired result :</p> <ul style="list-style-type: none"> <li>1 - Decline Workflow</li> <li>2 - Change Approver To Supervisor</li> <li>3 - Change Approver To Incumbent To Parent Position</li> </ul> <p>All other inputs are invalid.</p> </div>

Enter number of days in the 'DaysPassedGreaterThan' field under the "Input Parameter" tab.  
 Note: Workflows beyond the mentioned days will be considered.

**Edit Scheduled Trigger**

Name: \* Stalled Workflow

Description: Enter Corresponding Number in the 'ActionOnWorkFlow' field under the 'Input Parameter' tab for the desired result :  
 1 - Decline Workflow  
 2 - Change Approver To Supervisor

Execute: \* Fetch Pending Workflow

Priority: \* Low

Schedule    **Input Parameter**    Distribution

Show JSON editor

NotifierEmailId: \* abc@abc.com

ActionOnWorkFlow: \* 2

LogFilePath: \* C:\TEMP

DaysPassedGreaterThan: \* 1700 +

Update    Cancel

To add an unattended trigger, refer to the [Add a Scheduled Trigger](#) topic.

Monitor the Job	Open SAP Build Process Automation and click <b>Monitor &gt; Automation Jobs</b> . You should see your job on the list. If not, adjust the date range on the Jobs page and refresh the page. For more details, refer to the <a href="#">Automation Jobs</a> topic.
Check for Process	After your job status is Complete, verify notification emails sent to the requester.

## Support

There is no support available for the template content. If you experience general issues with the 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 a decision to determine the approver based on a certain business logic or add an action to post collected information to the backend SAP system. Refer [Help Portal](#) for more details.