



PUBLIC

SAP Build Process Automation

Mass Purchase Order Confirmations Configuration and User Guide

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Change Log

Version	Date	Description
1.0.0	September 18, 2023	Document Created

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

1. Overview: In this section, you will get quick overview of the use case, what are high-level components used and how the template works in nutshell. Prerequisite section provides information of different services of SAP Business Technology Platform 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) 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 My Inbox or Task Center and other applications.

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

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 has to 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

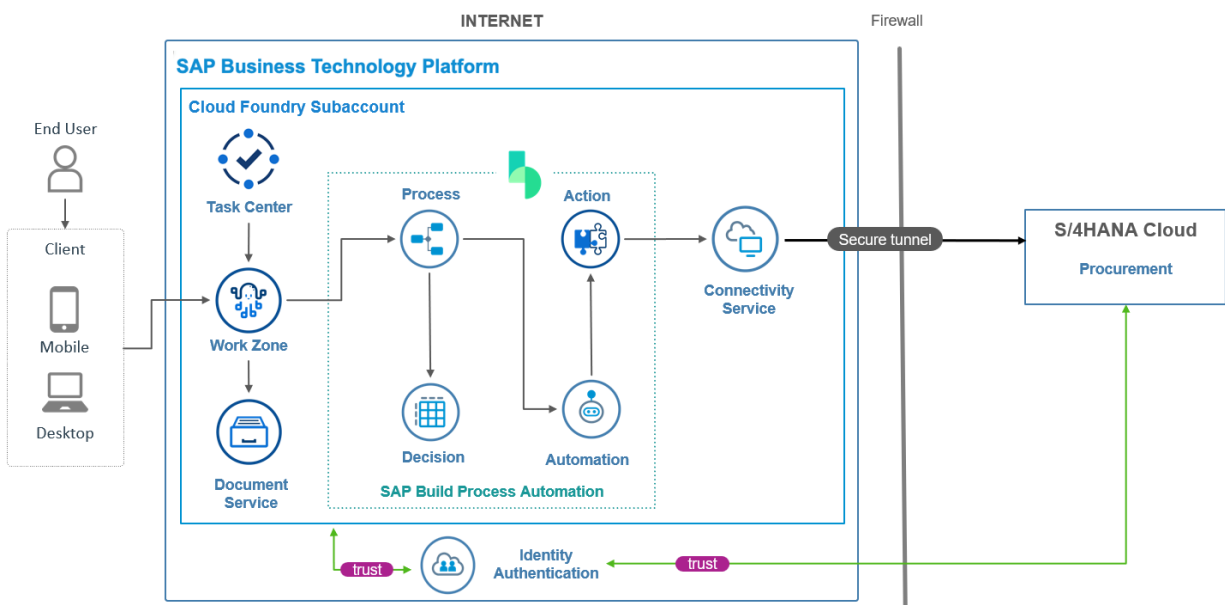
This document provides information about setting up the SAP Business Technology Platform account to consume the SAP Build Process Automation **Mass Purchase Order Confirmations** template. The main audience of this document are technical IT/system administrators.

Automation facilitates read, create, update or delete of the Purchase Order.

Features:

- This package provides functionality to get Purchase Order(s) from SAP S/4HANA system, update the excel template and send the notification mail to the required recipient.
- User can update the required additional data in excel template and uploads the file in Start UI to trigger the process flow.
- It provides the approval flow for the provided purchase order details based on the determined approver(s).
- Includes automation to automatically generate the log file once the uploaded file is approved and notifies the requester with email with generated log file.

Process Flow Diagram



Steps:

1. In Start UI, user can extract details of Purchase Order from SAP S/4HANA by providing required details with Read option.
2. Extracted data gets populated into an excel template.
3. Updated excel template is sent as attachment via email to the requestor.
4. Requestor can add required additional data in excel template and uploads it in the UI and triggers the approval process.
5. Once tasks are approved, Purchase Order data excel file is stored in predefined folder.
6. Automation can read the excel file and perform POST operation on trigger of process through Create/Update/Delete tab in Start UI. Execution logs gets stored in excel format and send via email to the requestor.

The followings are the details about the template excel files used in Mass Purchase Order Confirmations template.

- This package provides automation for fetching the Purchase Orders details from SAP S/4HANA and the fetched data will be saved in the excel file "**PurchaseOrderInput_<Timestamp>.xlsx**" in the folder which the user has defined in Start UI and then it allows user to update details for Purchase Orders.
- In case the user doesn't want to fetch data from SAP S/4HANA and directly want to fill the excel template then the excel file **Purchase Order Confirmation - Template.xlsx** can be used as reference to fill data and upload to Start UI.
- After POST call, the Log report will be generated with the name of "**LogReport_<Timestamp>.xlsx**" and will be saved in the folder you have mentioned in the

environment variable(**LogReportFolderPath**) and notifies the requester through email about the completion of operation with the attached log report .

Prerequisites

The following SAP Business Technology Platform services are required to consume the content package. Mass Purchase Order Confirmations:

- 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 Cloud
- SAP Business Technology Platform, Cloud Foundry runtime
- SAP Work Zone, standard or advanced edition for accessing My Inbox and Process Visibility workspaces.
- SAP Business Application Studio for SAP UI5 application
- SAP Document Management Service, Integration Option

Other Prerequisites

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

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

Notes:

- This package is designed only to work with the provided folder structure & input template file structures. DO NOT CHANGE any column properties and structure.
- If any changes done in the input template structure, related process & automation implementation also need to be updated to handle those changes
- You can decide the folder by the key parameters where the input template should be placed.
- The input template **Purchase Order Confirmation - Template.xlsx** is placed as file artefact and file is active checkbox should be selected.
- If Input Template file artefact is not active inside the project it will not be executed in automation.
- Refer to below screenshots for the list of fields covered in previously mentioned excel file input template:

Template: Import Purchase Orders Confirmations									
Bot Scope ID : XXX									
Task Type (C,U,D)	PurchaseOrder	PurchaseOrderItem	Supplier	CompanyCode	PurchasingGroup	CreationDate	OrderQuantity	PendingQuantity	PurchaseOrder
Text	Text	Text	Text	Text	Text	Date	Decimal	Decimal	Text
Mode	Key		Header			Item		Te	
TaskType	Purchasing Document Number	Purchasing Document Line-Item Number	Supplier	Company Code	Purchasing Group	Created On	Ordered quantity	Remaining quantity (pending quantity)	Order

PurchaseOrderQuantityUnit	SupplierConfirmation	SupplierConfirmationItem	SupplierConfirmationLine	DelivDateCategory	DeliveryDate	DeliveryTime	ConfirmedQuantity	SupplierConfirmationExtNumber
Text	Text	Text	Text	Text	Date	Time	Decimal	Text
Item	Confirmation							
quantity)	Order Unit	Supplier Confirmation Number	Supplier Confirmation Item	Supplier Confirmation Line	Delivery Date Category	Delivery Date	Time	Quantity
								Reference

- The input excel has 2 sheets 'Field List' and 'Purchase Orders'.
- In the Orders sheet the data will be fetched from the SAP S/4HANA and we will update few data to create or update or delete the Purchase Orders.
- In Field List sheet, mandatory fields details are updated. Please fill mandatory fields and upload input template. If mandatory fields are not filled, then Automation will throw errors.

Configuration Guide

Mass Purchase Order Confirmations template requires SAP Build Process Automation subscription or CPEA contract. Follow the [setup and configuration section](#)

Setup SAP S/4HANA

Configure SAP S/4HANA Destination

Configure Destination to Connect to SAP S/4HANA Cloud System

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

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

Note: Add the following additional properties to the destination

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

Name: *	S4HANA
Type:	HTTP
Description:	S/4 Hana System
URL: *	
Proxy Type:	Internet
Authentication:	BasicAuthentication
User: *	
Password:	

Additional Properties		
HTML5.Dynam...	true	
sap.application...	true	
sap.processaut...	true	
TrustAll	true	

Setup Communication

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

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

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

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

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

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

List of communication scenarios to be configured.

Communication Scenario	Related API
Purchase Order Integration(SAP_COM_0053)	Overview Purchase Order SAP Business Accelerator Hub
Supplier Confirmation Integration(SAP_COM_0904)	Overview Supplier Confirmation SAP Business Accelerator Hub
SAP Analytics Cloud for Planning Integration(SAP_COM_0087) Finance - Cloud Consolidation Data Collection Integration(SAP_COM_0241) Employee Central Financial Master Data Integration(SAP_COM_0441) SAP Analytics Cloud for Liquidity Planning Integration(SAP_COM_0443) Excise Tax Integration(SAP_COM_0568)	Overview Company Code - Read SAP Business Accelerator Hub

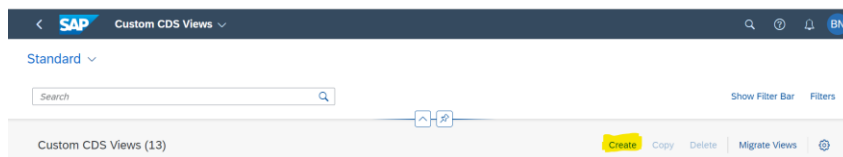
Communication Scenario	Related API
Procurement - Supplier Quotation Management Integration(SAP_COM_0760) Public Sector API Integration(SAP_COM_0761)	
Procurement Master Data Integration(SAP_COM_0116)	Overview Purchasing Organization - Read SAP Business Accelerator Hub
Procurement Master Data Integration(SAP_COM_0116)Procurement - Supplier Quotation Management Integration(SAP_COM_0760)	Overview Purchasing Group - Read SAP Business Accelerator Hub
An additional communication scenario assigned with custom inbound services	You need to create custom CDS views in your SAP S/4HANA Cloud system, expose them as external APIs, and then create a communication scenario and add these inbound services to this scenario. For details, see next section.

Configure Custom CDS Views and Create Additional Communication Scenario

[Configuration and Role Details for accessing "Custom CDS View" application.](#)

[Configuration and Role Details for accessing "Communication Scenario" Application.](#)

1. Open the **Custom CDS Views** app.



2. Click **Create** and select the scenario **External API**.

Name – **YY1_PURCHASEORDERCONF**

Create Custom CDS View

Label: *
PURCHASEORDERCONF

Name: *
YY1_PURCHASEORDERCONF

Scenario: *
External API

Create Cancel

3. Select your Primary Data Source – I_PurchaseOrderItemAPI01

Data Sources

No data source added yet. Click Add to select a CDS view as basis.

Select: Primary Data Source

I_PurchaseOrderItemAPI01

Data Sources (6)

Name	Label	Source Origin	Modeling Source	Modeling Association
I_PurchaseContractItemAPI01	Purchase Contract Item	ABAP Development Tools	✓	✓
I_PurchaseOrderAPI01	Purchase Order	ABAP Development Tools	✓	✓
I_PurchaseOrderHistoryAPI01	Purchase Order History	ABAP Development Tools	✓	✓
I_PurchaseOrderItemAPI01	Purchase Order Item	ABAP Development Tools	✓	✓

4. Select the Associated Data Source – I_POSupplierConfirmationAPI01

Select: Associated Data Source

I_POSupplierConfirmationAPI01

Data Sources (1)

Name	Label	Source Origin	Modeling Source	Modeling Association
I_POSupplierConfirmationAPI01	Supplier Confirmation Data in PurOrd	ABAP Development Tools	✓	✓

5. Add the JOIN Condition

Data Sources (2)							
☐	I_PurchaseOrderItemAPI01	I_PurchaseOrderItemAPI01	Primary Datasource			Released	
☐	I_POSupplierConfirmationAPI01	I_POSupplierConfirmationAPI01	Associated Datasource			Released	

I_POSupplierConfirmationAPI01.PurchaseOrder = I_PurchaseOrderItemAPI01.PurchaseOrder
I_POSupplierConfirmationAPI01.PurchaseOrderItem =
I_PurchaseOrderItemAPI01.PurchaseOrderItem

Name:	Alias:	Type:
I_POSupplierConfirmationAPI01	_I_POSupplierConfirmationAPI01	Associated Datasource
		Cardinality:
		Zero or More [0..*]

Join Conditions (2)					AND (All conditions fulfilled)	Add	Delete		
☐	Data Source Field	Type	Operator	Value Type	Value				
☐	PurchaseOrder	CHAR (10)	Equal	Field	I_PurchaseOrderItemAPI01.PurchaseOrder				
☐	PurchaseOrderItem	NUMC (5)	Equal	Field	I_PurchaseOrderItemAPI01.PurchaseOrderItem				

6. Go To Elements Tab and add Elements –

I_PurchaseOrderItemAPI01	PurchaseOrder
	PurchaseOrderItem
	_PurchaseOrder.CompanyCode
	_PurchaseOrder.PurchasingGroup
	_PurchaseOrder.PurchaseOrderDate
	_PurchaseOrder.PurchasingOrganization
	_PurchaseOrder.Supplier
	_PurchaseOrder.PurchaseOrderType
	IsCompletelyDelivered
	_PurchaseOrder.CreationDate
	OrderQuantity
I_POSupplierConfirmationAPI01	PurchaseOrderQuantityUnit
	DeliveryDate
	ConfirmedQuantity
	OrderQuantityUnit
	SequentialNmbrOfSuplrConf
	SupplierConfirmation
	SupplierConfirmationItem

Key	Alias	Type	Path	Label	Calculation	Task
☐	PurchaseOrder	CHAR (10)	I_PurchaseOrderItemAPI01.PurchaseOrder	Purchase Order		
☐	PurchaseOrderItem	NUMC (5)	I_PurchaseOrderItemAPI01.PurchaseOrderItem	Purchase Order Item		
☐	SequentialNbrOfSuprConf	NUMC (4)	_I_POSupplierConfirmationAPI01.SequentialNbrOfSuprConf	Sequential Number		
☐	SupplierConfirmation	CHAR (10)	_I_POSupplierConfirmationAPI01.SupplierConfirmation	Confirmation		
☐	SupplierConfirmationItem	NUMC (5)	_I_POSupplierConfirmationAPI01.SupplierConfirmationItem	Confirmation Item		
☐	CompanyCode	CHAR (4)	I_PurchaseOrderItemAPI01_PurchaseOrder.CompanyCode	Company Code		

7. Check and Publish

- Open the **Communication Scenarios** app and create a new communication scenario.

(We have referred to -[Create an Additional Communication Scenario | SAP Help Portal](#))

- Add the inbound services *CustomCDSViewName*_CDS to the communication scenario and publish it:

- **YY1_PURCHASEORDERCONF_CDS**

- Open the **Communication Arrangements** app and create a communication arrangement based on this newly created custom communication scenario.
- In the **Communication System** field under **Common Data**, select the communication system that you have created following the **Create Communication System** step mentioned in [Set Up Communication](#).
- Save your entries.

Setup Business Technology Platform Cockpit

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](#).

Configure SAP Document Management Service

In this template, the Input Template document for Mass Purchase Order Confirmations 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 user will need these roles:

Role Collection Name	Purpose
Process Automation Developer	Standard Business User, can model and publish processes
TaskCenterAdmin	Permission to execute calls to the Connector Status API and monitor configured destinations and running background jobs.
ProcessAutomationParticipant	To execute (like accessing 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 SAP 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 “**Mass Purchase Order Confirmations**”
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 Purchase Order Confirmations” 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 done then follow the below reference links.

Create an Automation

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

Create a Business Process

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

Create a Forms

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

Create a Decision

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

Create a Datatype

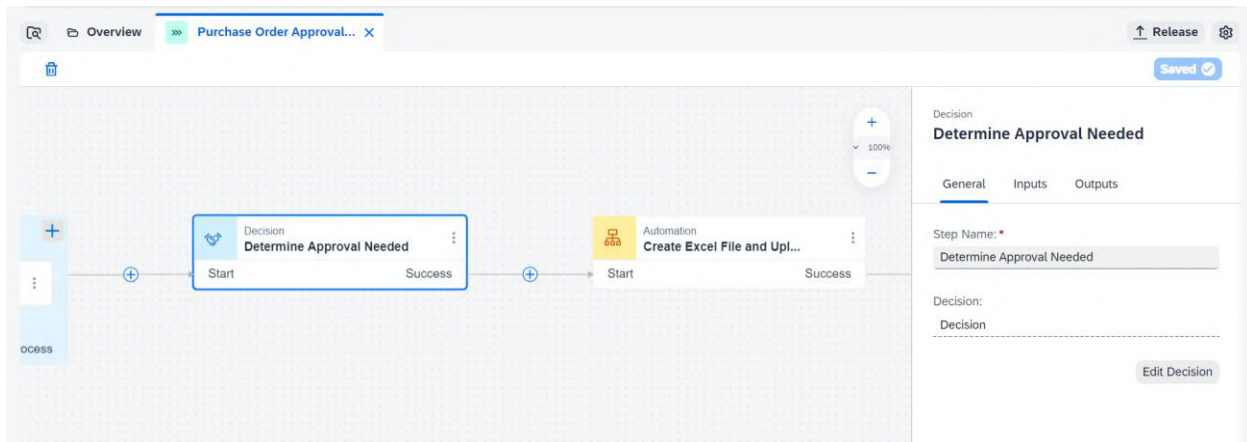
<https://help.sap.com/docs/build-process-automation/sap-build-process-automation/create-data-type-process-automation>

Configure Decisions

We have 3 decisions in this template. We can configure these decisions as per our requirements.

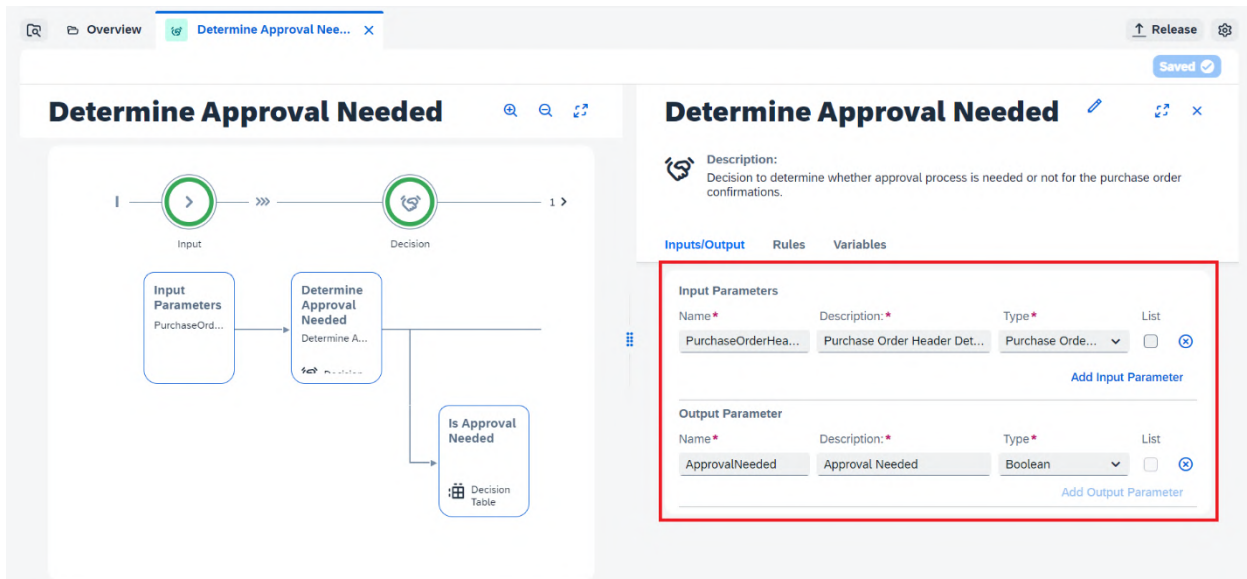
Determine Approval Needed – This decision is used to determine whether the approval is required or not for purchase orders. If required, it will group the data and send for the approval else it will create, update, or delete the Purchase Orders.

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 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.

1 Rule Details 2 **Configure Conditions** 3 Configure Results 4 Review

2. Configure Conditions

Click a vocabulary or its fields to configure the conditions.

Vocabulary	Condition Details	Label	Operator (Optional)
☐ Condition Attributes ☐ PurchaseOrderHeaderDetails ☒ ApprovalNeeded	☐ PurchaseOrderHeaderDetails.companyCode ☐ PurchaseOrderHeaderDetails.purchasingGroup ☐ Use vocabulary or Ctrl+Space for expressions	CompanyCode PurchasingGroup	

Previous Step Next Step Cancel

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

Overview Determine Approval Nee... Release Saved

Determine Approval Needed

Is Approval Needed

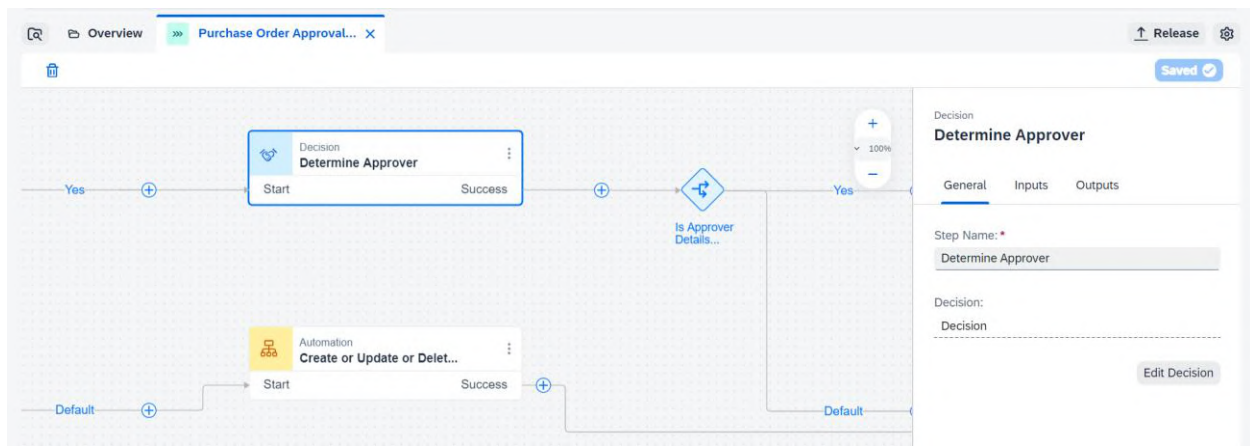
General Information:
Status: **Draft**
Hit Policy: **FIRST MATCH**

Description:
Rule to determine if approval is needed or not for the purchase order confirmations based on company code and purchasing group.

Decision Table		
If	Then	
☐ CompanyCode	PurchasingGroup	ApprovalNeeded
☐		true
☐ MATCHES :*	MATCHES :*	false

Determine Approver - This decision is used to determine the approver where the approval task for the Purchase Order Confirmation will be sent.

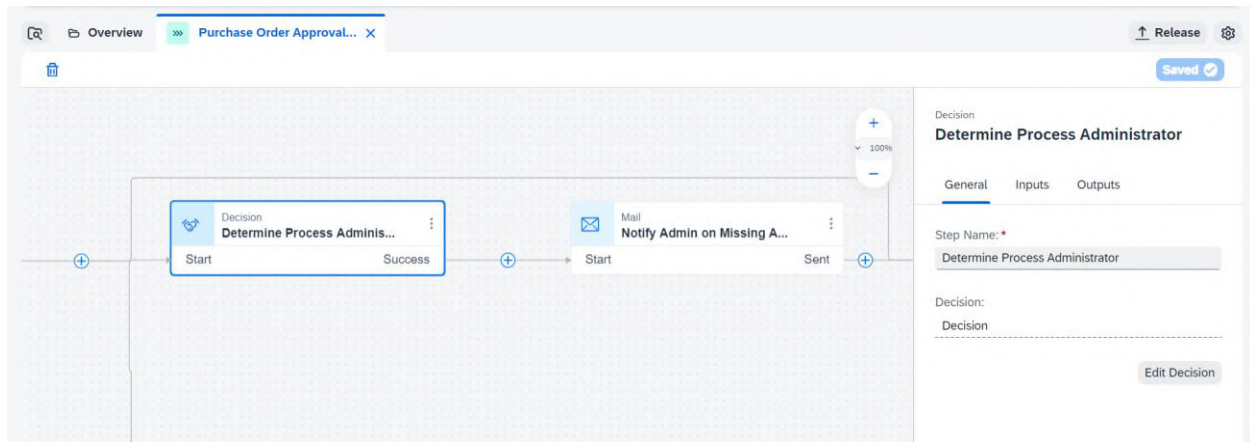
This decision can be selected from process as shown below:



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 Approval Needed**.

Determine Process Administrator- This Decision to determine process administrator who will assign approvers when no approver is maintained in determine approver decision.

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 Approval Needed**.

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'**.

The screenshot shows the SAP Process Designer interface. The main workspace displays a process flow with three tasks: 'ie Process Adminis...', 'Mail Notify Admin on Missing A...', and 'Approval Form Purchase Order Confirm'. The 'Mail' task is selected, and the right-hand panel shows its configuration. The 'Mail Header' section is expanded, showing the 'To' field with 'EmailId' and the 'Subject' field with 'Missing Approver for Purchase Order Confirmations for Company Code <companyCode> and Purchasing Group <purchasingGroup>'. The 'Mail Body' section has a button 'Open Mail Body Editor' and a green status message 'Mail Body has content. Open the editor to view.'

Edit Mail Body

The 'Edit Mail Body' dialog box is open. On the left, the 'Value Binding' panel shows a list of process tasks: 'Determine Process Admini...', 'Determine Approver', 'Create Excel File and Uplo...', 'Determine Approval Needed', 'Process Inputs', and 'Process Metadata'. The main area on the right contains a rich text editor with the following content:

Dear Admin,

The approval process is blocked for the below company code and purchasing group purchase order confirmations as the approver is not maintained. Please assign an appropriate user or group to the process instance for the approval process to continue from the monitoring application.

Company Code: <companyCode>

Purchasing Group: <purchasingGroup>

Process Instance Id: <Process Instance Id>

This is a system generated email.
PLEASE DO NOT REPLY.

Best Regards

At the bottom right, there are 'Apply' and 'Cancel' buttons.

- 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 the below link:

<https://help.sap.com/docs/build-process-automation/sap-build-process-automation/add-mail-notifications-to-process?q=email%20body>

Configure Destination Settings

The destinations that are created in SAP BTP cockpit will be required when you deploy the process. These destination will be mapped with the destination environment variables during deployment.

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

- **S4HANA_CLOUD**
- **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.

<https://help.sap.com/docs/build-process-automation/sap-build-process-automation/manage-destinations?q=destination%20setting>

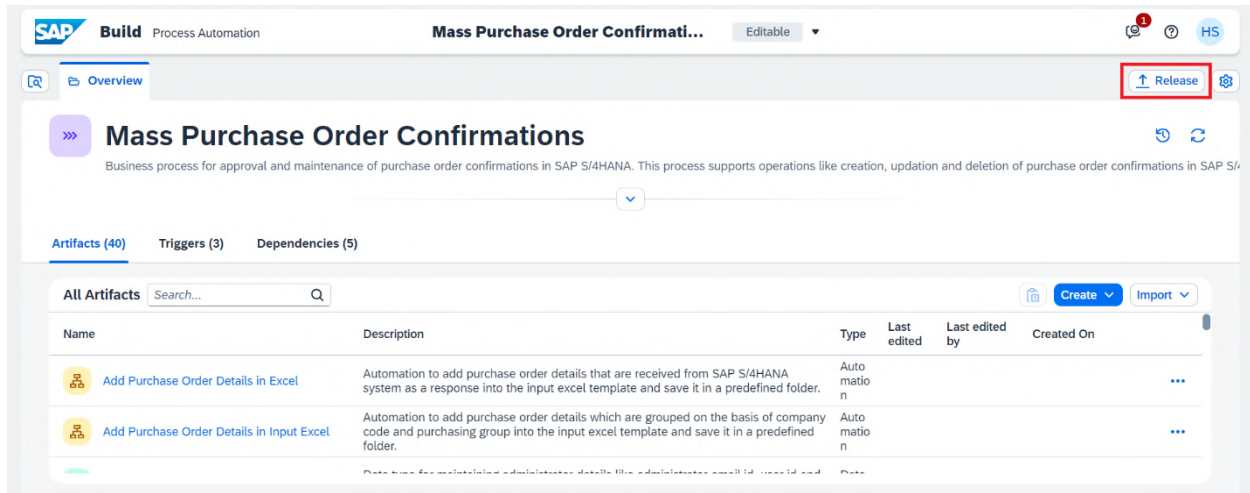
Release and Deploy the Process

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.

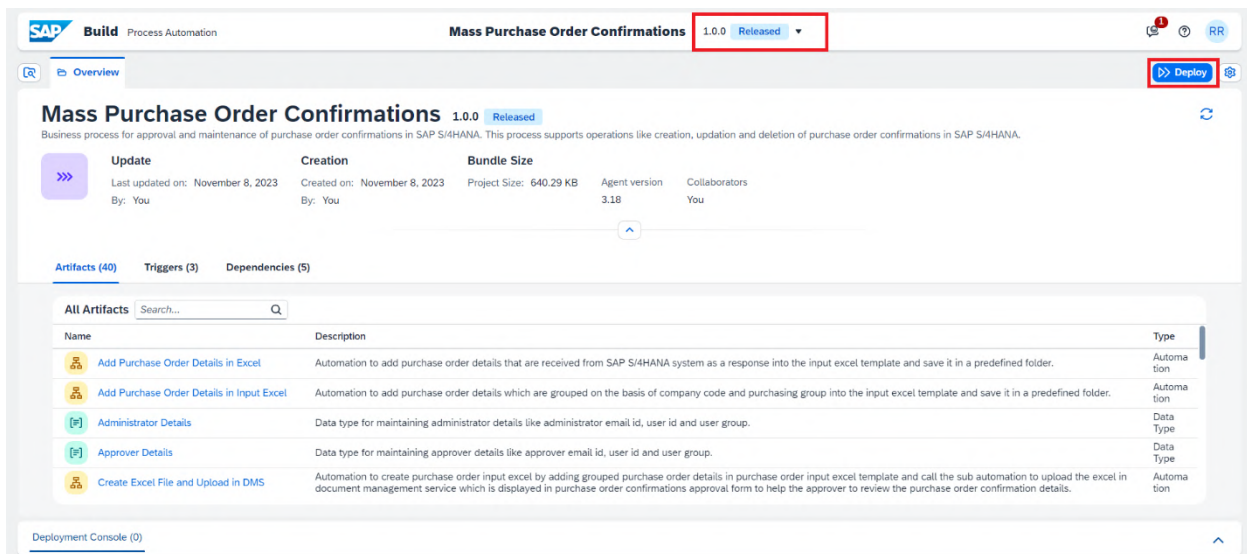
To deploy a released version of your process,

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

To deploy your project, you will be prompted to provide a Destination as an environment variable. Select the destination from the drop-down and fill other environment variables as well.

- **DMSDownloadFolderPath**: Folder Path where Downloaded Files from Document Management Service needs to be saved.
- **LogReportFolderPath**: Folder Path where Log Report for Create or Update or Delete Operation needs to be saved.
- **S4_Destination**: SAP S/4HANA System Destination.
- **DMS_Destination**: Document Management Service Destination.

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.

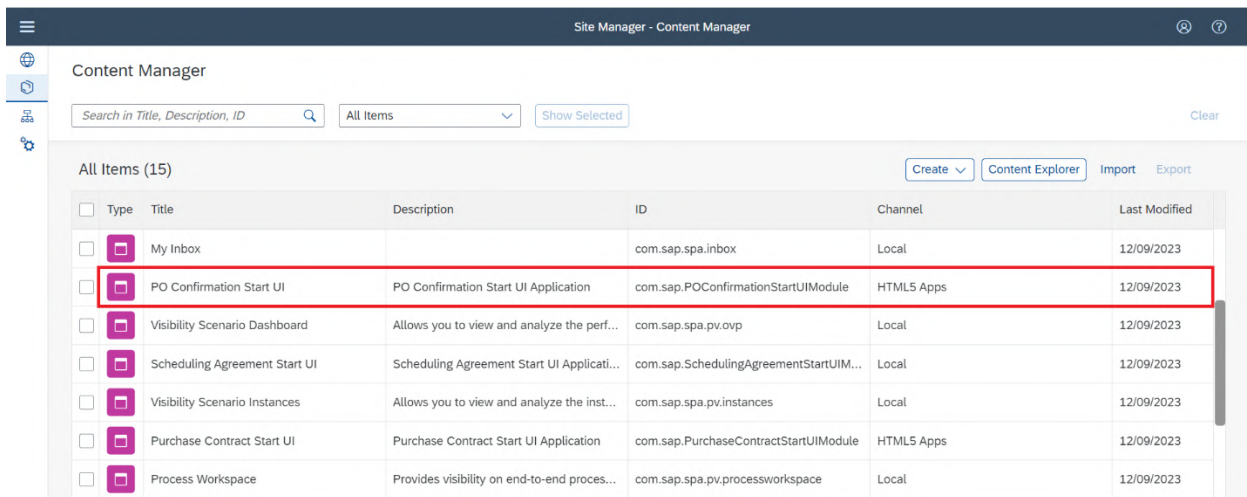


Configure SAP Build Work Zone

Configure SAP Build Work Zone to access the start UI for this automation. Please refer help documentation [Configuring SAP Build Work Zone](#)

Once SAP Build Work zone is configured, perform the following steps to create the tile for the start UI:

1. Open Content Manager and click on the HTML5 Apps
2. Select the Purchase Order Confirmation Start UI from the list of apps and choose Add



3. Add the relevant roles to the user. The Purchase Order confirmation application start UI will be available to the user as a tile in the launchpad.

SAP Business Application Studio for SAP UI5 Application

Import and deploy SAPUI5 application:

Following steps can be followed to utilize the SAP UI5 application provided with this process package:

- Download the SAPUI5 application file from the imported store project, it will be available under the file section in the package.
- Open Business Application Studio and import the previously downloaded SAPUI5 project.
- Ensure that you have already created the SBPA instance and the same instance details need to be updated in the mta.yaml file available in the SAP UI5 application project.
- Update your process definition id (Package needs to be deployed) in the Property.json file (property: readDefinitionId, uploadDefinitionId) as shown in the following snippets (definition id only needs to be updated in start UI application).
- **readDefinitionId** process will be used to read and download the data.
- **uploadDefinitionId** process will be used for approval process.



```
1 {
2   "readButtonSelected": true,
3   "uploadButtonSelected": false,
4   "attachmentFlag": false,
5   "uploadInvisibleFlag": false,
6   "sendEmailTo": "",
7   "saveToFolder": "C:\\\\",
8   "documentDateFrom": null,
9   "documentDateTo": null,
10  "readDefinitionId": "eu10.store-content-dev-acc.masspurchaseorderconfirmations.processToGetPurchaseOrderDetails",
11  "uploadDefinitionId": "eu10.store-content-dev-acc.masspurchaseorderconfirmations.processToCreateOrUpdateOrDeletePurchaseOrderConfirmations",
12  "userEmailId": "",
13  "companyCodeAPI": {
14    "service": "API_COMPANYCODE_SRV",
15    "entityset": "A_CompanyCode"
16  },
17  "purchasingGroupAPI": {
18    "service": "api_purchasinggroup/srvd_a2x/sap/purchasinggroup/0001",
19    "entityset": "A_PurchasingGroup"
20  },
21  "supplierNumberAPI": {
22    "service": "YY1_SUPPLIER_VH_CDS",
23    "entityset": "YY1_SUPPLIER_VH"
24  },
25  "purchasingDocumentTypeAPI": {
26    "service": "YY1_PurchasingDocumentType_CDS",
27    "entityset": "YY1_PurchasingDocumentType"
28  },
29  "purchaseOrganizationAPI": {
30    "service": "api_purchasingorganization/srvd_a2x/sap/purchasingorganization/0001",
31    "entityset": "A_PurchasingOrganization"
32  }
33 }
```

- Build SAPUI5 project using mta.yaml file & the generated project (generated mtar file will be available in the mta_archives folder) file can be deployed.
- After successful deployment of the project, it can be accessed using through SAP standard work zone & user can provide the required purchase order details & submit the form for Purchase order confirmation approval and posting.

User Guide

Capabilities

The following are the capabilities of this template:

For detailed information about different artifacts, please refer [help documentation](#).

Icon	Type	Name	Description
	Automation	Add Purchase Order Details in Excel	Automation to add purchase order details that are received from SAP S/4HANA system as a response into the input excel template and save it in a predefined folder.
	Automation	Add Purchase Order Details in Input Excel	Automation to add purchase order details which are grouped based on company code and purchasing group into the input excel template and save it in a predefined folder.
	Automation	Create Excel File and Upload in DMS	Automation to create purchase order input excel by adding grouped purchase order details in purchase order input excel template and call the sub automation to upload the excel in document management service which is displayed in purchase order confirmations approval form to help the approver to review the purchase order confirmation details.
	Automation	Create Excel for Log Report	Automation to create final excel log report for purchase order confirmations by adding respective worksheets and column headers in excel.
	Automation	Create Folder	Automation to create a new folder only if the folder doesn't already exist in the folder path.
	Automation	Create Folder in DMS	Automation to create a new folder in document management service to upload the purchase order input excel template in the created folder.
	Automation	Create, Update and Delete PO Confirmations	Automation to prepare payload to call the sub automations which will create or update or delete purchase order confirmations. Also updates the final excel log report to send to requestor.
	Automation	Create PO Confirmations using Action	Automation to create purchase order confirmations in the SAP S/4HANA system using action and updates the success and error responses in the final excel log report.
	Automation	Delete File in DMS	Automation to delete the files inside a particular folder in document management service.
	Automation	Delete Folder and File in DMS	Automation to delete the folder and file in document management service.
	Automation	Delete Folder in DMS	Automation to delete the folder in document management service.
	Automation	Delete PO Confirmations using Action	Automation to delete purchase order confirmations in the SAP S/4HANA system using action and updates the success and error responses in the final excel log report.

	Automation	Download Document from DMS	Automation to download the purchase order input excel template from document management service and save it in a predefined folder.
	Automation	Email Log Report to Requestor	Automation to send final excel log report for purchase order confirmations to requestor via email.
	Automation	Email Purchase Order Details to Requestor	Automation to send purchase order input excel template which is added with purchase order details that are received from SAP S/4HANA system to requestor via email.
	Automation	Get Purchase Order Confirmations Details	Main automation to call the sub automations to get the purchase orders and supplier confirmations details from SAP S/4HANA system. Also updates the purchase order input excel template to send to requestor.
	Automation	Get Purchase Orders using Action	Automation to get the purchase order details from SAP S/4HANA system using action.
	Automation	Get Supplier Confirmation Details using Action	Automation to get the supplier confirmation details from SAP S/4HANA system using action.
	Automation	Move Excel to Processed Folder	Automation to move input excel template from to be processed folder to processed folder.
	Automation	Process the Input Excel Data from DMS	Automation to get the purchase order input excel template from document management service and group purchase orders on the basis of company code and purchasing group to trigger purchase order approval process.
	Automation	Read Purchase Order Data from Excel	Automation to read purchase order details from purchase order input excel template.
	Automation	Rejection Email Notification to Requestor	Automation to send email to requestor about the rejected purchase order confirmations.
	Automation	Update PO Confirmations using Action	Automation to update purchase order confirmations in the SAP S/4HANA system using action and updates the success and error responses in the final excel log report.
	Automation	Upload Document in DMS	Automation to upload purchase order input excel template in document management service.
	Decision	Determine Approval Needed	Decision to determine whether approval process is needed or not for the purchase order confirmations.
	Decision	Determine Approver	Decision to determine approvers who will review and approve the purchase order confirmations.
	Decision	Determine Process Administrator	Decision to determine process administrator who will assign approvers when no approver is maintained in determine approver decision.
	Form	Buyer Team Approval	Approval form for buyer team to review and take decision on purchase order confirmations process.
	Process	Process to Create or Update or Delete Purchase Order Confirmations	Process to trigger automation to create, update and delete purchase order confirmations.
	Process	Process to get Purchase Order Details	Process to trigger automation to get purchase order details.
	Process	Purchase Order Approval Process	Approval process for purchase order confirmation creation.
	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 for maintaining document management service object details like object id, name and object type.
	Data type	Purchase Order	Data type for maintaining purchase order details.
	Data type	Purchase Order Header Details	Data type for maintaining purchase order header details.
	Data type	ReadScreenData	Data type for maintaining the inputs from read screen ui.
	Data type	UploadScreenData	Data type for maintaining the inputs from upload screen ui.
	File	Purchase Order Confirmation - Template	Input excel template for purchase order confirmation details

Automation

Get Purchase Order Details:

This automation is used to fetch existing Purchase Orders data from SAP S/4HANA.

API /CDS	API Path	Purpose
YY1_PURCHASEORDERCONF_CDS	<code>"/sap/opu/odata/sap/YY1_PURCHASEORDERCONF_CDS/YY1_PurchaseOrderConf?\$format=json&\$filter=" + filterQueryUrl</code>	GET call to fetch the Purchase Orders

Process the Input Excel Data from DMS

This automation will get the purchase order input excel template from document management service and group purchase orders on the basis of company code and purchasing group to trigger purchase order approval process

Create, Update and Delete PO Confirmations:

This automation will Create, Update or Delete PO Confirmations which have been added in the excel data.

API	API Path	Purpose
API_SUPPLIERCONFIRMATION	<code>"/sap/opu/odata4/sap/api_supplierconfirmation/srvd_a2x/sap/supplierconfirmation/0001/ConfirmationItem/" + purchaseOrderDetail.SupplierConfirmation + "/" + purchaseOrderDetail.SupplierConfirmationItem + "/_SupplierConfirmationLineTP</code>	POST API call to create the Purchase Order

	"/sap/opu/odata4/sap/api_supplierconfirmation/srvd_a2x/sap/supplierconfirmation/0001/ConfirmationLine/" + purchaseOrderDetail.SupplierConfirmation + "/" + purchaseOrderDetail.SupplierConfirmationItem + "/" + purchaseOrderDetail.SupplierConfirmationLine	PATCH API to update the Purchase Orders
	/sap/opu/odata4/sap/api_supplierconfirmation/srvd_a2x/sap/supplierconfirmation/0001/ConfirmationLine/" + purchaseOrderDetail.SupplierConfirmation + "/" + purchaseOrderDetail.SupplierConfirmationItem + "/" + purchaseOrderDetail.SupplierConfirmationLine	DELETE API to delete the Purchase Orders

Process

Process to Create or Update Purchase Order:

This process will be triggered via Start UI. This process will call the " Process the Input Excel Data from DMS" automation to get the purchase order input excel template from document management service

Process to get Purchase Order Details:

In Start UI, whenever user triggers the read purchase order request after filling selection criteria, this Process will be triggered to get all the purchase order from SAP S/4HANA that matches based on the selection criteria.

Purchase Order Approval Process:

This process includes "Determine Approval Needed" decision to check whether approval is mandatory or optional for this create/update/delete purchase orders. It then executes the "Determine Approver" decision to determine the approver to approve the purchase order request. It further uses approval process form to obtain required approvals. This process also automates the log files when it's approved else it will send the reject email notification to the requestor.

Forms

Buyer Team Approval

Approval form for buyer team to review and take decision on purchase order confirmation creation process. The approval form layout used for approval is as shown below:

User Interface

Start UI

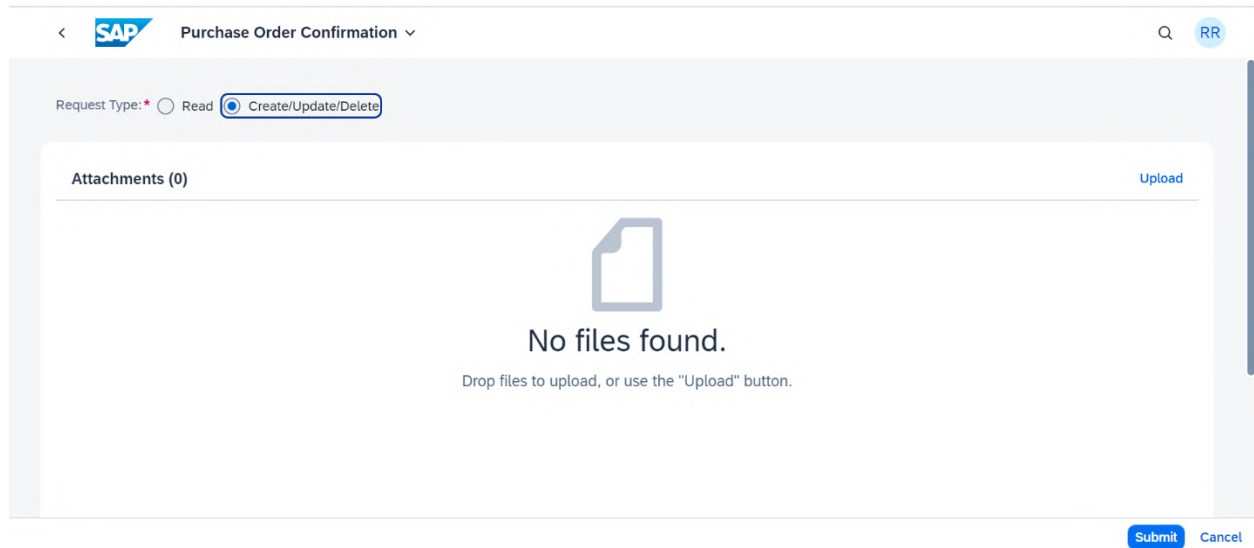
This template uses a Start UI which the user can use to Read and Create/Update/Delete Purchase Order Confirmations.

It provides following options to trigger the process for Read or Create/Update/Delete operation:

- Read: Using this Request Type users can select from F4 Help or can enter data manually. On submission of the form, process gets triggered that reads Purchase orders data and downloads it in the 'Save To Folder' path.

- Create/Update/Delete: This Request Type allows user to upload the Purchase order Input Template and "Submit" the form. It will trigger approval process to update Purchase order confirmation.

Note: Currently, this template only supports upload of single file upload.



The screenshot shows the SAP 'Purchase Order Confirmation' interface. At the top, there is a navigation bar with the SAP logo, a back arrow, and the title 'Purchase Order Confirmation' with a dropdown arrow. On the right, there is a search icon and a user profile icon labeled 'RR'. Below the navigation bar, there is a 'Request Type' section with two radio buttons: 'Read' (unselected) and 'Create/Update/Delete' (selected). The main content area is titled 'Attachments (0)' and features a large document icon with the text 'No files found.' and a subtext 'Drop files to upload, or use the "Upload" button.' An 'Upload' button is located in the top right corner of the attachment area. At the bottom right of the form, there are 'Submit' and 'Cancel' buttons.

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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