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## **SAP Build Process Automation**

# **Purchase Requisition Line Item Approval and Release Configuration and User Guide**



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## Change Log

Version	Date	Description
1.0.1	August 07 <sup>th</sup> , 2025	Package updated with Action project for 'Wait for API call'. Guide is also updated accordingly

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 Business Technology Platform Account with destination, cloud connector, user roles etc., (b) Integration Content via SAP Integration Suite, (c) SAPUI5 application via SAP Business Application Studio and (d) Import and configure the template using SAP Build Process Automation design studio and (e) 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.

**Note:**

- Learning contents are published only for demo and reference purposes. We do not provide any support to learning / sample content.
- This documentation is not a detailed guide to setup SAP Business Technology Platform services. It assumes that IT admin who is setting the content is skilled with SAP Business Technology Platform environment. **Configuration section must be followed.**
- 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

This document provides technical information about what needs to be configured to make the package – Purchase Requisition Line Item Approval and Release to run. The main audience of this document are technical personas like IT Administrators or Developers.

This content package enables SAP ERP (Enterprise Resource Planning) customers to automate purchase request approval and release process using SAP Build Process Automation without additional development in SAP ERP.

**NOTE: This content package cannot be used as a standalone content. It should be used in collaboration with 'Procure to Order' content package which is also a pre-built content published here:** <https://api.sap.com/package/sap.build.pa.content.procuretoorder/overview>

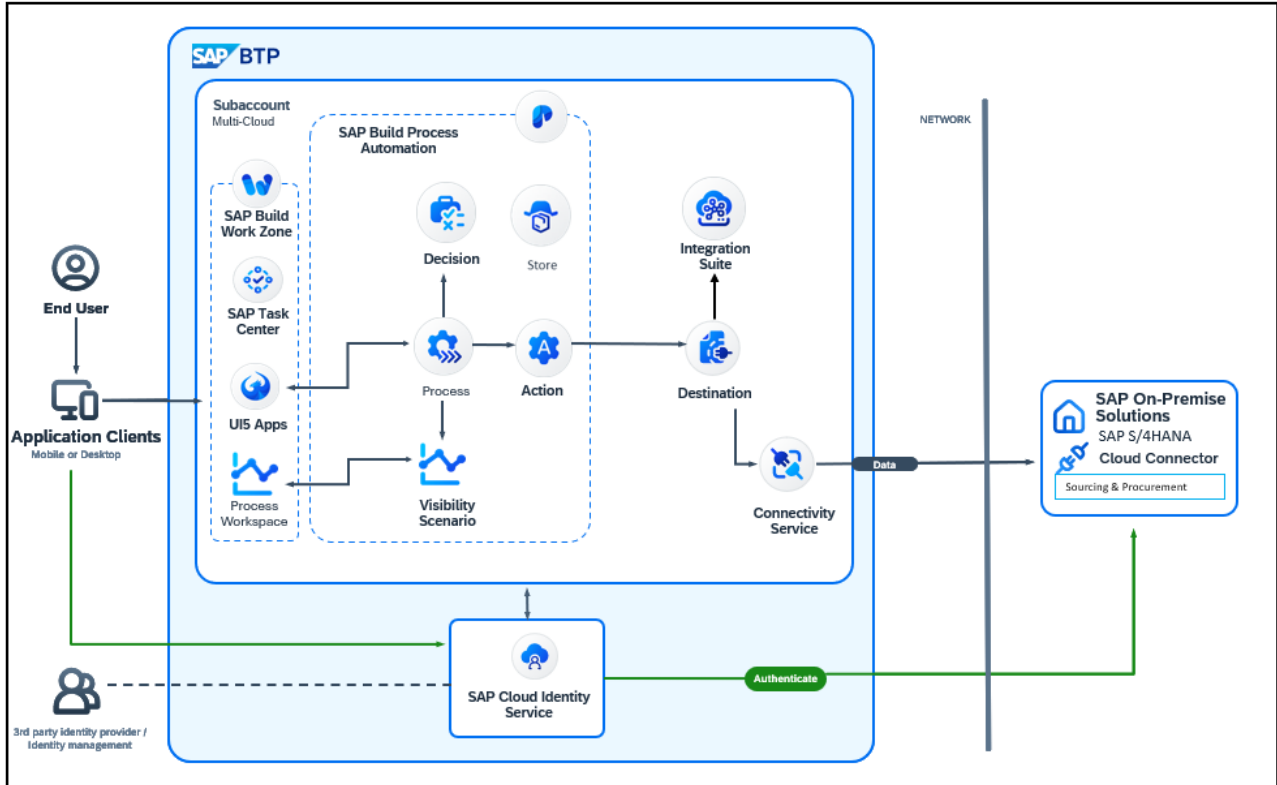
This content package can be used with both SAP S/4HANA Cloud Private Edition (2023 onwards) and S/4HANA On-Premise.)

**Features:**

- Plug and Play with SAP ERP without additional development.
- Integration content to call SAP ERP BAPIs from process.
- Approvers are notified via email.
- Purchase Requisition Line Item will be released in SAP S/4HANA.
- Provides a real-time dashboard to monitor process progress and performance metrics through process visibility



## Process Flow Diagram



### Solution flow :

1. This package works in collaboration with 'Procure to Order' content package. The Start UI required to start the process is present as part of 'Procure to Order'. Steps to import and deploy the UI package is mentioned in the guide attached with 'Procure to Order'.
2. Once the Purchase requisition line item process is triggered (via Procure to Order), line item details are validated against the business conditions that is maintained in the decisions. If validation fails, then the requestor will receive a task to either update the line item details based on the failure messages or delete the line item in the purchase requisition.
3. Upon successful validation, the request will be sent to the cost center owners for approval in a sequential manner. Approver reviews the line item details and can either approve or reject the request. If approved, the request moves forward to the next approver. If rejected, the request is sent back to the requestor for rework.
4. After rejection, the requestor can either update the line item details based on the approver's comments or delete the line item in the purchase requisition.
5. Reworked line item is again sent for approval (to all the cost center owners) with the updated line item details.
6. Finally, the approved purchase requisition line item will be released in the SAP S/4HANA system.
7. If release is failed, then the IT support will receive a task to either update the line item details based on the error messages or retry the line item release again or delete the line item in the purchase requisition.

- Process ends once all the line item requests for the purchase requisition are completed.

## Required SAP Business Technology Platform Services

The following SAP Business Technology Platform services are required to consume the **Purchase Requisition Line Item Approval and Release**:

- SAP Build Process Automation
- SAP Connectivity service
- SAP Business Application Studio
- SAP Integration Suite
- SAP Application Runtime Service
- SAP Work Zone, standard or advanced
- SAP Cloud Identity Services - Identity Authentication (optional)
- SAP Business Technology Platform, Cloud Foundry runtime.

## Prerequisites

For this template to run successfully the following prerequisites are needed

- Get access to BTP account.
- Need valid SAP S/4HANA user.
- This template requires Integration package 'SAP ERP Integration with SAP Build Process Automation' to run. You can download this package separately from the Integration Suite Tenant. The guide to set-up and configure integration package is available along with the integration package itself.

## Configuration Guide

**Purchase Requisition Line Item Approval and Release** template requires SAP Build Process Automation subscription and Destination Setup for SAP Build Process Automation. Follow the [setup and configuration section](#).

## Setup Business Technology Platform Cockpit

### Configure SAP Build Process Automation Destination

To Access the SAP Build process Automation, you can configure the destination. Please create destination accordingly

Destination Property	Value
Name	sap_process_automation_service
Type	HTTP
URL	<" endpoints"."api">
Client ID	<"uaa"."clientid">
Client Secret	<"uaa"."clientsecret">
Token Service URL	<"uaa"."url"/>/oauth/token
Proxy Type Internet	Internet
Authentication	OAuth2ClientCredentials

Add the property **sap.processautomation.enabled** as **true** to view the destination in the SAP Build Process Automation tenant. Please refer [help document](#) for more details.

## Configure SAP S/4HANA Destination

This content package can be used with SAP S/4HANA On-Premise. Destination can be created accordingly.

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

## Configure SAP Integration Suite Destination

Configure Destination to connect to Integration Suite destination cloud system.

Destination Property	Value
Name	IntegrationSuite
Type	HTTP
URL	<Integration Suite Destination endpoint> <a href="https://&lt;Integration Suite&gt;.hana.ondemand.com">https://&lt;Integration Suite&gt;.hana.ondemand.com</a>
Proxy Type Internet	Internet
Authentication	Basic Authentication
Username	<Username> of the SAP S/4HANA Communication User
Password	<Password> of the SAP S/4HANA Communication User

## 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 Business Technology Platform Account.

Configuring destination, [Configure Mail Destination](#)

- For more information refer to Create [HTTP Destinations](#) and [OAuth User Token Exchange Authentication](#).

## User Roles Configuration

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

Role Collection Name	Purpose
TaskCenterAdmin	Permission to execute calls to the connector status API and monitor configured destinations and running background jobs.
Process Automation Developer	Standard Business User, can model and publish processes
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 applications 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](#).

## Cloud Connector Configuration

For SAP S/4HANA on-premise landscape, configure cloud connector to enable secure tunnel to SAP Business Technology Platform tenant. Please refer the help documentation to [configure Cloud Connector](#).

Services/Resources that need to be exposed from SAP S/4HANA on-premise using Cloud Connector.

Resources	Protocol	Backend-Type
BAPI_REQUISITION_DELETE	OData	SAP S/4HANA
BAPI_REQUISITION_GETDETAIL	OData	SAP S/4HANA
BAPI_REQUISITION_RELEASE	OData	SAP S/4HANA
BAPI_REQUISITION_CHANGE	OData	SAP S/4HANA
BAPI_MATERIAL_GETLIST	OData	SAP S/4HANA
BAPI_MATERIAL_GET_DETAIL	OData	SAP S/4HANA
BAPI_REQUISITION_CREATE	OData	SAP S/4HANA
SLS_LORD_GET_VALUES_WERKS	OData	SAP S/4HANA

## Setup Content Package

### Import SAP Build Process Automation content

Standard automation packages released by SAP will be available at the store. To know more about the store visit [SAP Build Process Automation Store](#).

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 "Business Process."
3. In the Search bar type "**Purchase Requisition Line Item Approval and Release**"



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 “**Purchase Requisition Line Item Approval and Release**” template available for use.

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

## Import and deploy TASK UI application

The content package requires the SAP UI5 user interfaces which are available in Purchase Requisition Approval Line Item and Release content package. Below are details of Task UI applications

Task UI Applications:

- ApprovePR
- ProcessValidationError
- ReworkPR

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

- Download the SAPUI5 application from the imported store project.
- Open Business Application Studio and import the previously downloaded SAPUI5 project.
- Build SAPUI5 project using mta.yaml file and the generated project (generated mtar file will be available in the mta\_archives folder) file can be deployed.

## 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.

### Configure Decisions

There are 3 decisions in this template. We can configure as required.

#### 1. Determine Line Item Approvers

This Decision to determine the approvers who will take decision on the purchase requisition line item approval and release process. To modify the decision:

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

**Determine Line Item Approvers**

Description: Decision to determine the approvers who will take decision on the purchase requisition line item approval and release process.

**Inputs/Output** Rules Variables

**Input Parameters**

Name	Description	Type	List
Purchase Requisition Line Item	Details of Purchase Requisition Line Item	Purchase Requisition Lin...	<input type="checkbox"/>

**Output Parameter**

Name	Description	Type	List
Approver Details	Details of Approver	Approver Details	<input checked="" type="checkbox"/>

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

**Determine Approvers**

General Information: Status: Draft Hit Policy: ALL MATCH

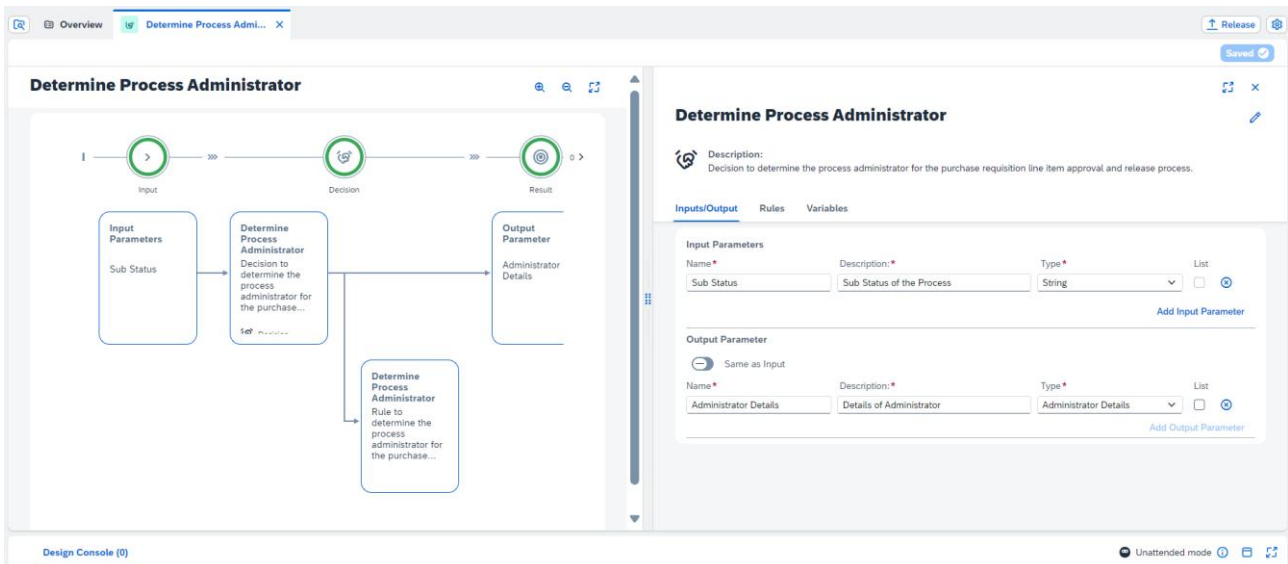
Description: Rule to determine the approvers for the purchase requisition line item approval and release process based on the conditions like plant, document type, etc.

**Decision Table**

IF	Purchasing Gr...	Purchasing Or...	Document Type	Plant	Material Group	Step Name	Net Amo
<input type="checkbox"/>						= 'Cost Cent...	
<input type="checkbox"/>						= 'Cost Cent...	

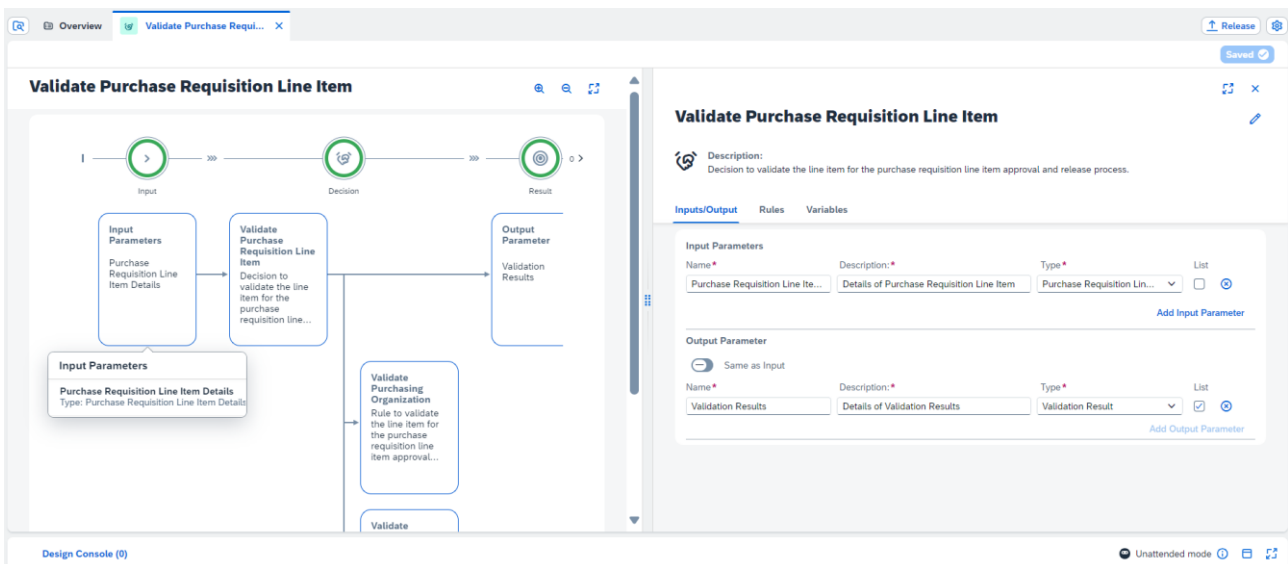
## 2. Determine Process Administrator

This decision is used to determine the process administrator for the purchase requisition line item approval and release process.



### 3. Validate Purchase Requisition Line Item

The decision is used to validate the line item for the purchase requisition Line Item approval and release process.



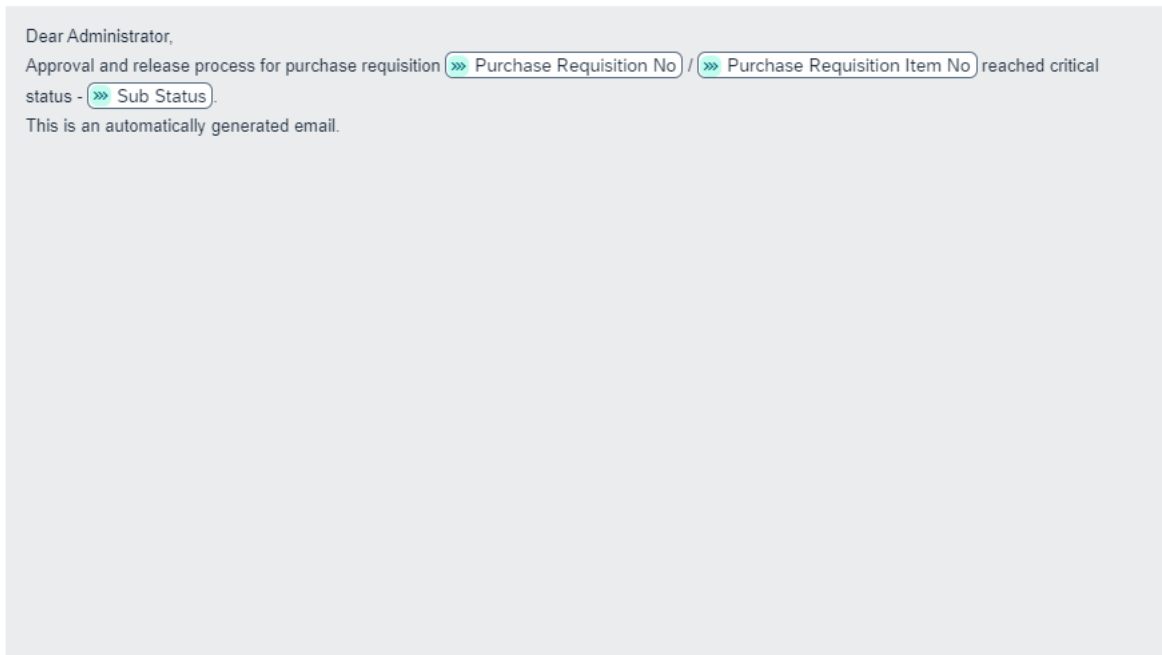
## Configure Email

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 modified.

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'**.

## Mail Body



Close

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

For more information on email configuration and text, refer to this [link](#)

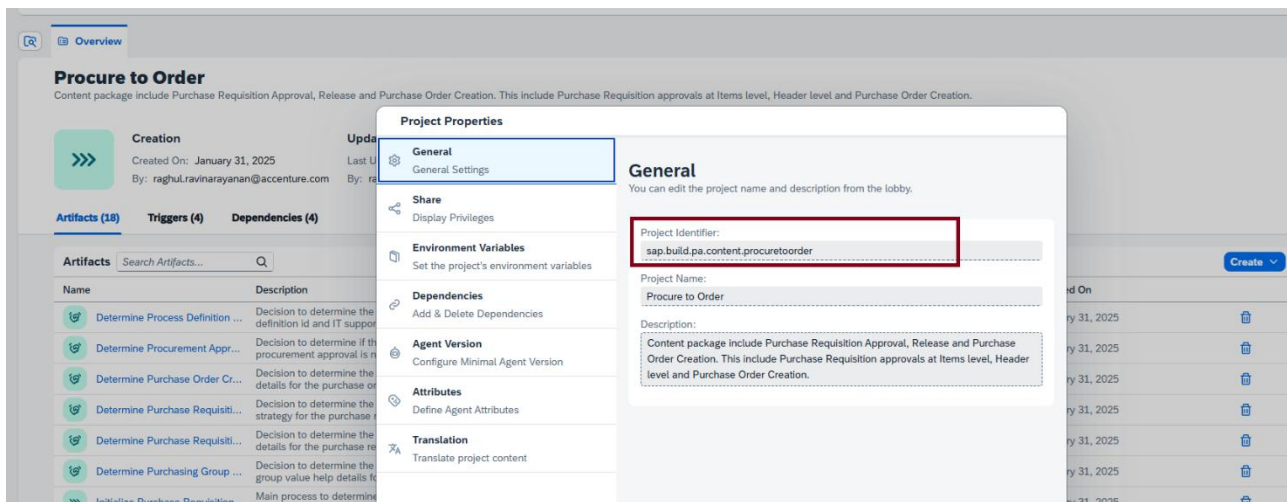
In case any further extension needs to be made then follow the reference links below.

## Configure Process

As mentioned earlier, the current package '**Purchase Requisition Line item approval and Release**' works only in an orchestrated mode with 'Procure to Order' content package.

Do the following changes in the sub-process 'Notify Initialize Purchase Requisition Approval Process'. Open the sub-process and click on the action artefact, 'Call Procure to Order from Purchase Requisition LineItem'. On the right side of the screen, click on the 'Inputs' tab and enter the value for the field, 'parentprojectid'.

The 'parentprojectid' is the project id of the process 'Procure to Order' and can be obtained as below:  
This would have been generated once you had added the project 'Procure to Order' to your lobby.  
The project id can be obtained as below:  
Project Overview->Settings->General



## Create Forms

[Create a Form | SAP Help Portal](#)

## Create Automation

[Create an Automation | SAP Help Portal](#)

## Create Decision

[Create a Decision | SAP Help Portal](#)

## Create Process Visibility Scenario

[Create a Visibility Scenario | SAP Help Portal](#)

## 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'.

For more information please visit: [SAP Build Process Automation](#)

**Note:** 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.

## Import Destination

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

To configure destination,

- Click on **Control Tower**.
- Select **Destinations** from the right panel.
- Click **Add**

Select the destinations created in the setup section to be added.

For more information and screen shots, please refer to the below link: [Manage Destinations](#)

**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**.

For more information and screen shots, please refer to the below link: [Deploy Project](#)

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.

- **IntegrationSuite:** Business Technology Platform destination to connect with destination.
- **ProcessAutomation:** Business Technology Platform destination to connect with ProcessAutomation API

**Note:** If you do not map your destination environment variable with actual SAP Business Technology Platform destination during deployment, then the process will enter erroneous state when it tries to connect to the external system.

## User Guides

### Capabilities

The following are the capabilities of this template:

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

Type	Name	Description
Decision	Determine Line Item Approvers	Decision to determine the approvers who will take decision on the purchase requisition line item approval and release process.
Decision	Determine Process Administrator	Decision to determine the process administrator for the purchase requisition line item approval and release process.
Decision	Validate Purchase Requisition Line Item	Decision to validate the line item for the purchase requisition line item approval and release process.
Decision	Determine Approvers	Decision to determine approvers and task due date for AFE approval process

Decision	Determine External Approvers	Decision to determine external approvers and task due date for AFE approval process.
Decision	Determine Project Template	Determine project template based on expenditure details
Process	Notify Process Administrator	Process to determine the administrator for the purchase requisition line item approval and release request and notify administrator on the errors and exceptions.
Process	Approve Line Item	Process to determine the approvers for the purchase requisition line item approval and release request and send it to approvers for approval. If the request is rejected by the approvers, then request will be sent to the requestor for rework.
Process	Cancel and Delete Line Item	Process to delete the purchase requisition line item and cancel the request if the process is in critical status.
Process	Cancel and Release Line Item	Process to release the purchase requisition line item and cancel the request if the process is in critical status.
Process	Notify Initialize Purchase Requisition Approval Process	Process to send confirmation message to the event which is waiting for confirmation in the main process.
Process	Purchase Requisition Line Item Approval and Release	Process to validate, send for approval, release purchase requisition line item in the SAP S/4HANA system and finally notify the request status to the event in the main process.
Process	Release Line Item	Process to release the purchase requisition line item in the SAP S/4HANA system.
Process	Restart the Process	Process to restart the purchase requisition line item approval and release request if the process is in critical status.
Process	Validate Line Item	Process to validate the purchase requisition line item approval and release request before sending for approval.
Form	Admin Form - Line Item Update Error	Admin form for IT support to update the purchase requisition line item details based on the errors.
Form	Admin Form - Release Error	Admin form for IT support to retry the execution on business error or exception.
Form	Admin Form - User Assignment	Admin form for IT support to assign task owner.

Form	Process Validation Failure UI	Task UI for the requestor to update on the purchase requisition line item details for the validation failure.
Form	Purchase Requisition Line Item Rework UI	Rework task UI for the requestor to rework on the purchase requisition line item details.
Form	Purchase Requisition Line Item Approval UI	Approval task UI for the approvers to take decision on the purchase requisition line item approval and release process.
Data type	Administrator Details	Data type for maintaining administrator details like first name, last name and email.
Data type	Approver Details	Data type for maintaining approver details like task duration, approver name, approver group, auto approval, approver email and approver user id.
Data type	Confirmation Message	Data type for maintaining confirmation message details like definition id, workflow definition id, business key and context details.
Data type	History Details	Data type for maintaining history details like user, role, decision, comment and step name.
Data type	IT Support Details	Data type for maintaining administrator details like group name, group email and username.
Data type	Purchase Request Details	Data type for maintaining purchase request details like document id and requestor details.
Data type	Purchase Requisition Line Item Details	Data type for maintaining purchase requisition line item details like plant, document type, etc.
Data type	Purchase Requisition Line Item Request Details	Data type for maintaining purchase requisition request details like business key, line item details, etc.
Data type	Update Error Messages	Data type for maintaining error details like error code and error message.
Data type	Validation Result	Data type for maintaining validation details like description, result and attribute.

## Actions

### PR Line Item - Read, Update, Delete and Release Action

This action enables you to read, update, delete and release purchase requisition line items in the SAP S/4HANA system. This service is based on integration suite endpoints.

Method | API

| API Path

| Purpose



POST	N/A	/http/PURCHASE_REQ UISITION_DELETE	This action will delete Purchase Requisition Item.
POST	N/A	/http/PURCHASE_REQ UISITION_GETDETAIL	This action will get Purchase Requisition Item.
POST	N/A	/http/PURCHASE_REQ UISITION_RELEASE	This action will release Purchase Requisition Item.
POST	N/A	/http/PURCHASE_REQ UISITION_CHANGE	This action will update Purchase Requisition Item.

### PR Line Item - Process Actions

This action to provide process capability of SAP Build Process Automation. It retrieves error messages and instance context for a process instance. It enables sending messages and start a new process instance.

Method	API	API Path	Purpose
GET	/public/workflow/rest	/public/workflow/rest /v1/workflow- instances/{workflowInst ancelId}/error-messages	This action will retrieve current error messages for a process instance.
GET	/public/workflow/rest	/public/workflow/rest /v1/workflow- instances/{workflowInst ancelId}/context	This action will retrieve the context for a workflow instance independent of its status.
POST	/public/workflow/rest	/public/workflow/rest/v 1/messages	This action will send confirmation message to initialize purchase requisition approval process.
POST	/public/workflow/rest	/public/workflow/rest/v 1/workflow-instances	This action will start a new process instance of the provided process definition id.

### Process Actions

This action to manage workflow or process in SAP Build Process Automation

Method	API	API Path	Purpose
GET	/public/workflow/rest	/public/workflow/rest /v1/workflow-instances	This action will retrieve process instances by parameters.
PATCH	/public/workflow/rest	/public/workflow/rest /v1/workflow- instances/{workflowInst ancelId}	This action will modify the properties of a given process instance

### Sendback Message to Procure to Order Process Action

This action is used to send the message to the calling process when used for intermediate messaging event

Method	API	API Path	Purpose
POST	/unified/v1/triggers/	/unified/v1/trigge rs/api /{parentproject- id}.confirmLinelte mApprovalAndRel easeEvent	This action will send confirmation message to 'Procure to Order' process from where the 'Purchase Requisition Line item Approval and Release'

process was invoked. This is done where 'Wait for API' call is added in the 'Procure to Order' process.

## Support

There is no support available for template content. If you experience general issues with SAP Build Process Automation, please follow the links below:

- [Troubleshoot Support Guided Answer](#)
- [Test an Automation Help portal Article](#)
- [Test an Application Help portal Article](#)
- [Get traces Support Guided Answer](#)

If the issue persists, please raise an incident via SAP Support Portal on **BPI-PA-BPC** component.

This template can be modified using SAP Process Automation. For example: add decisions 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](http://www.sap.com)