

SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

## Live Process Content

# Purchase Requisition Approval and Release in SAP ERP using SAP Workflow Management

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# Overview

This document provides information about configuration steps to consume the Live Process Package Purchase Requisition Approval and Release. The main audience of this document are Procurement experts, Developers and Product owners.

This content package enables SAP ERP customers to automate Purchase Request approval and release process using SAP Workflow Management without additional development in SAP ERP. Salient features of this content package are

- Plug and Play with SAP ERP without additional development.
- Process steps are delivered to create net new variants.
- New Process variants can be configured in a low-code no-code approach.
- Agent determination using Business Rules or SAP ERP or external systems.
- Validation of Line-item attributes using Business Rules.
- Process visibility and key process performance indicators out of the box.
- Insight to Action – system and user triggered actions in process visibility.
- Business Rules to provide flexibility in determining workflow templates and approvers.
- Integration content to call SAP ERP BAPIs from SAP Workflow Management.

Purchase Requisition Approval and Release Process enable customers to automate approval and release of Line Items in a flexible and transparent way. It provides flexibility in choosing process variants depending on attributes like Request date, Price, Material Group, Document Type, Plant, Purchasing Group and Purchasing Organization etc. When a requestor creates a Purchase Request with line items in SAP ERP, pre-configured Process Variants are triggered in SAP Workflow Management.

- Line-Item data validated using Business Rules before approval.
- Approvers are determined using a Business Rule / external system.
- Multiple approvers and approval tasks in a process step and determined dynamically.
- Approvers are notified via email.
- Approvers have two decision options (Approve, Reject), and based on the decision, the next approval step will be created or requested for a rework or delete the line item and terminate the approval process.
- Line Item will be released in SAP ERP for Purchase Order creation.

SAP Workflow Management shall not be used to store or process sensitive personal data. This service can be used if you have a legal ground to process personal data.

# Live Process Artifacts

## Process content package

A process content package consists of process steps, process templates, process variants, decisions and process visibility models. Please refer [help documentation](#) about these artifacts

A business process consists of steps that could be executed independently. A process step consists of set of activities together add value to the business. All the activities involved in a process step are grouped and represented as a process step. Table 2 represents the list of steps defined to use in Purchase Requisition Approval and Release process.

A process step is added to a process template with a constraint model. The constraint model defines the number of times a process step could occur in a new process variant.

**Purchase Requisition Approval and Release** - Validate, Approve and Release Purchase Requisition Line Items. Agent determination strategy is determined using Business Rule and approvers are determined accordingly.

### Process Template - Purchase Requisition Approval and Release

This Process has three steps. Please see the Table 2 for more details.

*Table 2. Process Steps.*

Process Steps	Cardinality	Detailed Description
Validate Line Item	0..1	Validate the Line item based on a business rule Validate Purchase Requisition Line Item. It is possible to add validation rules for Document Type, Material Group, Purchasing Organization, Purchasing Group, Price, Plant, Currency, Account Assignment and Requisition Date. The step can occur maximum once in a Process Variant. If the validation is failed, requestor will be informed and a task is assigned, Requestor can either rework and submit the line item for approval or delete the line item.
Approve Line Item	0.. N	Approval of Line Item. This step can occur multiple times in a process variant. It is possible to rename the step to appropriate approval roles. The agent determination strategy is based on a Business Rule <i>Agent Determination Strategy</i> . An approval step can have multiple task owners or multiple tasks with multiple task owners. The approvers are determined from a Business Rule <i>Determine Approver</i> or an External system like SAP ERP or SuccessFactors. When the approver rejects the request, Requestor will be informed, and a task is assigned to the requestor. Requestor can either rework, submit the request for approval or cancel the request and delete the line item in SAP ERP.
Release Line Item	0..1	Release the Line Item after completion of all the configured approval steps. The step can occur maximum only once, and it should be the last step in a process variant. If there is an

		error while releasing the line item, a task is created and assigned the procurement IT Administrator configured in the business rule <i>Determine Process Variant for Line-Item approval</i> .
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A Process Step has properties, and these properties are configured while configuring a process variant. Please see Table 3 for more details.

*Table 3. Process Step Properties.*

Process Step	Properties	Detailed Description
Approve Line Item	Role	The role of the approver. This text is added to all the activities which are part of this step. This will be visible in Process Visibility.
	Step	The approval step name. The Step names are used in Decision which can be configured to determine the approvers.

A Process has attributes, and these attributes are available in Process Visibility to search approval process instances and to define process performance indicators. Please see Table 4 for more details

*Table 4. Process Attributes.*

Process Attributes	Detailed Description
Request ID	Unique id of the request
Item Id	Purchase Request Line Item
Material ID	Material ID
Material Description	Material Description
Quantity	Quantity Ordered
Unit of Measure	Unity of Measure
Price of Item	Price
Currency	Currency
Approval Status	Approval Status
Plant	Plant
Material Group	Material Group
Purchasing Group	Purchasing Group
Purchasing Organization	Purchasing Organization
Desired Vendor	Desired Vendor
Delivery Date	Delivery Date

## Process Variants

A process variant consists of multiple process steps configured by a Line of business expert. It is possible to create multiple process variants depends on the number of approval steps. Please refer [help documentation](#) about how to import content packages and configure a process variant

### Purchase Request Approval Process Variant

An example of a Purchase Request Approval Process Variant is given below. It is possible to

configure multiple variants of this process.

The screenshot shows the SAP Manage Process Variants interface. At the top, there is a navigation bar with the SAP logo and the text 'Manage Process Variants'. Below this, the process name 'Purchase Requisition Approval & Release' is displayed, along with 'Undo', 'Redo', 'Save', and 'Activate' buttons. The main area is divided into three panels:

- Available Steps (3):** A list of three steps:
  - Approve Line Item:** Approval workflow for purchase Requisition Line Item.
  - Release Line Item:** Release Purchase Requisition Line Item after approval.
  - Validate Line Item:** Validation of Purchase Requisition Line Item data using Business Rules.
- Process Diagram:** A flowchart showing the sequence of steps: 'Validate Line Item' (orange box) → 'Approve Line Item' (blue box) → 'Release Line Item' (green box). The process starts with a green circle and ends with a red circle. A '96%' completion indicator is shown next to the diagram.
- Process Variant Properties:** A form with the following fields:
  - Name \*:** Purchase Requisition Approval & Release
  - Process:** Purchase Requisition Approval & Release
  - Description:** Default Purchase Requisition Approval variant

## Import Purchase Requisition Approval and Release Process Content and Configure Process Variants

1. Import content package Purchase Requisition Approval and Release. Please refer the standard help document about [how to import a content package](#).
2. This content package has a process template and a process variant.
3. Create a new variant of Purchase Requisition Approval & Release Process. Open content package Purchase Requisition Approval and Release Process in Flexibility Cockpit and click Process Variants.
4. Click New Process Variant.
5. Enter Name of the new Process Variant and select Purchase Requisition Approval & Release as Process. Click Create button.
6. Click the newly created Process Variant tile to configure the process variant.
7. The newly added Process Variant has a default implementation with three steps.

### Configure Step Properties - Approve Line Item.

The Step determine the approver from a pre-configured Business Rule or external system.

Step Name property is used to determine the Approver using the business rule Determine Approver.

It is possible to add additional approval steps to a process variant. Drag and drop the Approval step between the steps. It is mandatory that these approval steps should be between Validation and Release Line-Item steps.

## Add new Process Steps to an existing Process Variant.

The default variant of the process has Validate, Approve and Release steps. A Purchase Requisition Approval & Release process variant can have only one Validate or Release Steps. But multiple Approval Steps can be added.

1. Select Process Variant Purchase Request Approval and Release
2. Drag and drop Approve Line Item as an additional approval step between the steps. The newly added step name can be modified either directly on the activity or in the Name field in properties window.
3. Save and Activate the new Process Variant. Successful activation of the process variant will generate a new workflow definition and deploy to the subaccount.

## Determine Procurement Approval using Purchase Requisition Header Approval package (optional)

It is possible to configure Business Approval (Line-Item level) and Procurement Approval (Header level) in Purchase Requisition approval scenario. [Purchase Requisition Header approval](#) package enable customers to configure Purchasing approval including all line items. In this case Procurement Approval variant can be started after Business Approval finished at all. Determine Procurement Approval rule used to check Procurement Approval needs.

In case when both variants (Business Approval and Procurement Approval) are used at one approval process, the release step in Business approval variant should not be used.

Release step should be added only in Procurement Approval (Header level approval) variant as a final step.

## Creation of Purchase Order using Manage Purchase Order Creation package (optional)

It is possible to create Purchase orders after Business Approval (Line-Item level) and Procurement Approval (Header level). In this case, Purchase order creation variant can be started after Procurement Approval is finished. Determine Purchase Order Creation rule is used to check if Purchase order creation is needed or not.

A process variant consists of multiple process steps configured by a line of business expert. It is possible to create multiple variants of the same process. For example, if the total net amount of all the Purchase requisition line items is more than 1000 then there could be an approval process, or if the total net amount is less than 500 then it can be automatically approved, etc.

## Import Manage Purchase Order Approval and Creation Content and Configure Process Variants

1. Import content package [Manage Purchase Order Approval and Creation](#). Please refer the standard help document about [how to import a content package](#). This content package has one process template and process variant(s) for that template are required.
2. To create a new variant of Manage Purchase Order Approval and Creation, open content package Manage Purchase Order Approval and Creation in Flexibility Cockpit and click on

Process Variants tile.

3. Click New Process Variant.
4. Enter the Name for the new Process Variant and select “Approve and Create Purchase Order” as Process.
5. Click on Create button.
6. Click the newly created Process Variant tile to save and activate the process variant.
7. The Process Variant has three steps Enrich Purchase Requisition, Approve Purchase Order creation and Create Purchase Order.
8. Configure Step Property “Approval Step” for **Approve Purchase Order creation** step. Approval Step property is used to determine the Approver using the business rule Determine Approver.
9. It is possible to add additional Approval steps to a process variant. Drag and drop the **Approve Purchase Order creation** step where required and update the name Approval Step property.
10. Start Conditions can be configured at the variant level, for example, Purchase Requisition. Total Net Amount  $\geq$  1000 Purchase Requisition. Transaction Currency = USD. This variant will be triggered only if the start conditions are satisfied.
11. If required, at every process step, the step conditions can be configured. Only when the conditions are met, the step shall be executed.
12. Save and Activate the variant. A successful activation will create a new workflow definition in the account that can be viewed in the Monitor Workflows – Workflow Definition application in the Fiori Launchpad.
13. Update the Determine Approver Policy and include the Approval Step to the rule condition.

### Add additional Approval Step to an existing Process Variant

It is possible to add additional approval steps, or even remove all approval process steps from the process.

1. Open content package Manage Purchase Order Approval and Creation in Flexibility Cockpit and click on Process Variants tile
2. Select the variant that you want to modify.
3. Drag and drop “**Approve Purchase Order creation**” as an additional step between the ‘Enrich Purchase Requisition and ‘Create Purchase Order’ steps.
4. Modify the step name in the properties pane.
5. Modify the Approval Step property as needed.
6. Save and Activate the new Process Variant.
7. Update the Determine Approver Policy to include the Approval Step to the rule.



# Decisions & Policies

Decisions allow to encapsulate the business logic from core applications and supports the reuse of business rules across different business processes. Decisions enable customers to adopt changes in processes without changing the underlying workflows or application logic. SAP Workflow Management has Decision management capabilities enable customers to centrally manage all decisions. Please go through the [Decision Management capabilities](#) in SAP Workflow Management.

Purchase Requisition Approval and Release process enable customers to flexibly configure decisions to gain flexibility to

1. Purchase Requisition approval strategy.
2. Determine Process Variants for Purchase Requisition Line Items
3. Validate Purchase Requisition Line-Item data.
4. Agent determination Strategy.
5. Determine Approvers
6. Determine Process Administrators

Please go through [Manage Decision Application](#) in SAP Workflow Management.

The screenshot displays the SAP Process Flexibility Cockpit interface. At the top, there is a navigation bar with the SAP logo and the text 'Process Flexibility Cockpit'. Below this, a breadcrumb trail shows 'My Live Processes / Purchase Requisition Approval and Release / Decisions'. The main content area is divided into two sections: 'Base Purchase Requisition Rules for SAP ERP' and 'Purchase Requisition Rules for SAP ERP'. Each section contains several decision rule cards, each with an icon, a title, a description, and a revision number (all are 2008).

**Base Purchase Requisition Rules for SAP ERP**

- Determine Procurement Approval**: Determination the need for procurement approval. Revision: 2008
- Determine Workflow Template For Header Approval**: Determine workflow template for header approval. Revision: 2008
- Purchase Requisition Approval Strategy**: Purchase requisition approval strategy based on header or line items. Revision: 2008
- Determine Process Admin**: Rule service used in NotifyAdmin workflow to identify process admin's email based on status of the instance. Revision: 2008
- Determine Process Variant**: Process variant to be used for a purchase requisition line item based on different conditions. Possible conditions are Request date, Material Group, Purchasing Group, Purchasing Organisation, Plant and Price. Revision: 2008

**Purchase Requisition Rules for SAP ERP**

- Validate Line Item**: Rules Service Validate attributes of a Line Item from Validate Line Item process step. Possible to validate document type, purchasing organisation, price, purchasing group, plant, material group. Revision: 2008
- Determine Approver**: Determine Approver of a Line Item based on various conditions. Possible to use Material group, Purchasing group, Purchasing Organisation, Plant and Price. Revision: 2008
- Agent Determination Strategy**: Determine Approvers from a target system like SuccessFactors. Agent determination from ECC or Business Rules. Revision: 2008

## Purchase Requisition Approval Strategy

Approval of Purchase Requisition at header level or line-item level. An approval workflow variant is used based on the response.

**Rule Project:** Base Purchase Requisition Rules for SAP ERP

**Rule Service Name:** PurchaseRequisitionApprovalStrategy

**Input:** Purchase Requisition Header (Structure data type)

ATTRIBUTE	TYPE	DESCRIPTION
Document Type	String	Purchase Requisition Document Type
Purchasing Organization	String	Purchasing Organization
Requisition Date	Date	Date of Purchase Requisition creation

Output Approval Strategy (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Approval Strategy	String	Line Item or Header

Rule Definition

Purchase Requisition Approval Strategy 53 x

**General Information:**  
 Decision: Purchase Requisition Approval Strategy  
 Status: Draft

**Description:**  
 Approval strategy to use header level approval or line item approval

Decision Table

if	Then
<input type="checkbox"/> Purchase Requisition Header.Document Type <input type="checkbox"/> = 'NB' <input type="checkbox"/> = 'NB'	Purchase Requisition Header.Purchasing Organisation Purchase Requisition Header.Requisition Date Approval Strategy 'LineItem' 'LineItem'
<input type="checkbox"/> = '0002' <input type="checkbox"/> = '0001'	IN [ 'Aug 1, 2020' .. Dec 31, 2020 ] IN [ 'Aug 1, 2020' .. Dec 31, 2020 ]

Process: Purchase Requisition approval and Release  
 Step: Approve Purchase Request Line Item

**Procurement or Header level Approval**

This rule is used to determine a procurement approval, or a header level approval is required after completing a line item level approval. By default, the rule output will be false. But customers can enable this by setting to true.

**Rule Project:** Base Purchase Requisition Rules for SAP ERP

**Rule Service Name:** Determine Procurement Approval

**Input:** Purchase Requisition Header (Structure data type)

ATTRIBUTE	TYPE	DESCRIPTION
Requisition Date	Date	Purchase Requisition Date
Document Type	String	Purchase Requisition Document Type
Purchase Value	Number	Purchase Requisition Value
Purchasing Organisation	String	Purchasing organisation
Step Name	String	Process Step Name

Output Procurement Approval (Element)

ATTRIBUTE	TYPE	DESCRIPTION
Procurement Approval	Boolean	Procurement Approval step flag

Rule Definition

The screenshot shows the SAP Business Rules service interface. At the top, there is a header with the SAP logo and 'SAP Business Rules service'. Below this, there is a breadcrumb trail: 'Manage Projects / Base Purchase Requisition Rules for SAP ERP /'. To the right of the breadcrumb are 'Import' and 'Export' buttons. The main title of the rule is 'Determine Procurement Approval'. Below the title, there is a 'Details' tab and a 'Decision Table' tab. The 'Decision Table' tab is active, showing a table with 'If' and 'Then' columns. The 'If' column contains two conditions: 'Purchase Requisition Header.Document Type =' and 'Purchase Requisition Header.Purchase Value >='. The 'Then' column contains the output 'Procurement Approval'. There are two rows in the table, one for 'true' and one for 'false'.

Process: InitializePurchaseRequisitionApprovalProcess

Step: Workflow to start Purchase Requisition approval process

**Determine Purchase Order Creation**

This rule is used to determine a Purchase Order creation is required after approval and release of line items. By default, the rule output will be false. But customers can enable this by setting to true.

**Rule Project:** Base Purchase Requisition Rules for SAP ERP

Rule Service Name: Determine Purchase Order Creation

Input: Purchase Requisition Header (Structure data type)

ATTRIBUTE	TYPE	DESCRIPTION
Requisition Date	Date	Purchase Requisition Date
Document Type	String	Purchase Requisition Document Type
Purchase Value	Number	Purchase Requisition Value
Purchasing Organisation	String	Purchasing organisation
Step Name	String	Process Step Name

Output Create Purchase Order (Element)

ATTRIBUTE	TYPE	DESCRIPTION
Create Purchase Order	Boolean	Purchase Order Creation flag.

Rule Definition

SAP Business Rules service

Manage Projects / Base Purchase Requisition Rules for SAP ERP / Import Export Edit Validate

Determine Purchase Order Creation

Details Decision Table

Decision Table

If		Then
Document =	Net Amount >=	Create Purchase Order
'NB'	1000	true

Process: InitializePurchaseRequisitionApprovalProcess

### Determine Process Variant

It is possible to configure different Process Variant for each Purchase Requisition Line Item using conditions modeled using the attributes of the Line Item.

**Rule Project:** Base Purchase Requisition Rules for SAP ERP

**Rule Service:** DeterineWorkflowTemplateForLineItemApproval

Input: Purchase Requisition Line Item (Structure data type)

ATTRIBUTE	TYPE	DESCRIPTION
Requisition Date	Date	Purchase Requisition Date
Document Type	String	Purchase Requisition Document Type
Total Value	Number	Price of Line item
Purchasing Organisation	String	Purchasing organisation
Material Group	String	Material Group
Purchasing Group	String	Purchasing Group
Plant	String	Plant
Step Name	String	Process Step Name
Accounts Assignment Category	String	Account Assignment Category
Currency	String	Currency of Line Item

Output: Process Step (String)

ATTRIBUTE	TYPE	DESCRIPTION
Workflow Definition Id	String	A preconfigured Workflow Definition Id. The value of workflow definition id will be available in Monitor Workflows-Workflow definitions application after activation of a Process Variant of type Purchase Requisition Approval and Release.
IT Responsible Group Email	String	IT Responsible Group Email
IT Responsible Group Name	String	IT Responsible Group Name

## Rule Definition

Determine Workflow Template is defined as a Decision Table. It is possible to modify the decision table by keeping the above input, output interface stable.

 Determine Process Variant

Details Decision Table

Decision Table

Decision Table

If								Then		
Item.Requisition...	Item.Document T...	Item.Total value	Item.Purchasing ...	Item.Purchasing ...	Item.Plant	Item.Material Gr...	Item.Currency	Workflow Definiti...	IT Responsible G...	IT Responsible G...
IN [ 'Jul 1, 20...	= 'NB'	>= 100	= '0002'	= '001'			= 'EUR'	'purchaserequ...	'ITSupport'	'ITSupprot@d...
IN [ 'Jul 1, 20...	= 'NB'	>= 100		= '001'			= 'EUR'	'purchaserequ...	'ITSupport'	'ITSupprot@d...
IN [ 'Jul 1, 20...	= 'NB'	>= 100		= '002'			= 'EUR'	'purchaserequ...	'ITSupport'	'ITSupprot@d...
IN [ 'May 3, 2...	= 'NB'	<= 500	= '0001'				= 'USD'	'purchaserequ...	'ITSupport'	'ITSupprot@d...
IN [ 'May 3, 2...	= 'NB'	<= 500	= '0001'				= 'CH'	'purchaserequ...	'ITSupport'	'ITSupprot@d...
IN [ 'May 3, 2...	= 'NB'	<= 500	= '0001'				= 'EUR'	'purchaserequ...	'ITSupport'	'ITSupprot@d...
IN [ 'May 3, 2...	= 'NB'	> 500	= '0001'	= '001'			= 'EUR'	'purchaserequ...	'ITSupport'	'ITSupprot@d...
IN [ 'Jul 1, 20...	= 'NB'	>= 100	= '0001'				= 'EUR'	'purchaserequ...	'ITSupport'	'ITSupprot@d...

## Where used

Process: A workflow (Initialize Purchase Requisition Approval Process) definition is available with this content package to determine process variant.

## Validate Purchase Requisition Line Item

Validate attributes of a Line Item. It is possible to include multiple validation as either simple text rules or decision tables.

**Rule Project:** Purchase Requisition Rules for SAP ERP

**Rule Service Name:** Validate Line Item

**Input:** Purchase Requisition Line Item (Structure data type)

ATTRIBUTE	TYPE	DESCRIPTION
Requisition Date	Date	Purchase Requisition Date
Document Type	String	Purchase Requisition Document Type
Total Value	Number	Total value of Line item
Purchasing Organization	String	Purchasing organization
Material Group	String	Material Group
Purchasing Group	String	Purchasing Group
Plant	String	Plant
Step Name	String	Process Step Name

Accounts Assignment Category	String	Account Assignment Category
Currency	String	Currency of Line Item
Desired Vendor	String	Preferred Vendor

Output: Validation Result (Table)

Validate line item attributes with various attributes. Include all Rules in Rule Set **Purchase Request Line Item Validation**.

ATTRIBUTE	TYPE	DESCRIPTION
Line Item Attribute	String	Purchase Request Line Item Attribute name for e.g.: Purchasing Organization
Validation Description	String	Validation Description
Validation Success	Boolean	Validation result True – Successful False - Failed

Rule Definition

Validate attributes in an orchestration rule. It is possible to add all attributes in the input structure in the validation rule as a single rule or multiple rules.



### Validate Purchasing Organisation

Details Text Rule

Item.Purchasing Organisation = ""

Then

UPDATE( Result.Attribute of a Line item , 'PurchasingOrganisation' )
 ⊗ +

UPDATE( Result.Description of validation , 'Purchasing Organisation Missing ' )
 ⊗ +

UPDATE( Result.Result of validation , false )
 ⊗ +

APPEND( Validation Result , Result )
 ⊗ +

Where used

Process: Purchase Requisition approval and Release

Step: Validate Line Item.

## Agent Determination

System to be used for determining organisational hierarchy. A Business rule can be configured or an external system like SuccessFactors or SAP HCM or 3rd Party system using an interface provided by the workflow model.

Rule Project: Purchase Requisition Rules for SAP ERP

Rule Service Name: ApproverDeterminationSystem

Input: WorkflowStep (Structure data type)

ATTRIBUTE	TYPE	DESCRIPTION
Process Step	String	Process Step

Output ApproverDeterminationFrom (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Strategy	String	BusinessRule, SuccessFactors, SAP HCM, SAP ERP or 3 <sup>rd</sup> Party system.

## Rule Definition

 Agent Determination Strategy

**Details** Text Rule

---

Name: ApproverDeterminationSystem  
Label: Agent Determination Strategy  
Description: An approver of a step can be determined based on a Rule or External System like SAP SuccessFactors, SAP HCM or third party systems.

Result: ApproverDeterminationFrom  
Status: Active  
Created On: May 28, 2020

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**Text Rule**

Text Rule

- ▼ If

Process Step.Approval step name = 'Manager'

Then

Strategy: 'BusinessRules'
- ▼ Else If (1)

Process Step.Approval step name = 'GPO'

Then

Strategy: 'External'
- ▼ Else

Strategy: 'BusinessRules'

Process: Purchase Requisition approval and Release

Step: Approve Line Item

## Determine Approver

Determine the approvers / owners of a task including the deadline and decide if there is an auto approval possible. Possible to have multiple approvers for a step / sequentially executing multiple tasks.

**Rule Project:** Purchase Requisition Rules for SAP ERP

**Rule Service Name:** Determine Approver

**Input:** Purchase Requisition Line Item (Structure data type)

ATTRIBUTE	TYPE	DESCRIPTION
Requisition Date	Date	Purchase Requisition Date
Document Type	String	Purchase Requisition Document Type
Total Value	Number	Price of Line item
Purchasing Organization	String	Purchasing organization
Material Group	String	Material Group
Purchasing Group	String	Purchasing Group
Plant	String	Plant
Step Name	String	Process Step Name
Accounts Assignment Category	String	Account Assignment Category
Currency	String	Currency of Line Item

**Output:** Approver (Structure)

Approver names, groups, email id, completion deadline and auto approval.

ATTRIBUTE	TYPE	DESCRIPTION
Approver Name	String	Approver Names, Comma Separated Names
Approver Email	String	Email Ids of Approvers, comma separated.
Approver Group	String	Approver Group
Task Duration	Number	Number of hours planned to complete the task
Duration From	String	Task duration calculated from beginning of a Process Step or immediately before the actual Task.
Auto Approval	Boolean	Approver required or not.

**Rule Definition**

Possible to use various operators to evaluate the conditions.



Name: DetermineApprover  
 Label: Determine Approver of an Approval Step  
 Description: Determine Approver of an approval step.  
 Hit Policy: First Match

Result: LineItemApprover  
 Status: Active  
 Created On: May 28, 2020

Decision Table

If								Then				
Item.Purchasing Gr...	Item.Purchasing Org...	Item.Document Type =	Item.Plant =	Item.Material Group =	Item.Approval Step ...	Item.Total value	Approver Name	Approver Group	Approver Email	Task Duration in hours	Duration From	Auto Approval
'002'	'0001'	'NB'	'0001'	'01'	'Manager'	'<= 500'		'ibpdeveloper'		1.0	'Step'	false
'001'	'0001'	'NB'	'0001'	'01'	'Manager'	'>= 500'		'ibpdeveloper'		1	'Step'	false
'001'	'0001'	'NB'	'0001'	'01'	'VicePresident'	'>= 1000'		'ibpdeveloper'		48	'Task'	false
'001'	'0001'	'NB'	'0001'	'01'	'GPO'	'>= 500'		'ibpdeveloper'		1	'Step'	false
					'Approver'			'ibpdeveloper'		1	'Step'	false

Process: Purchase Requisition approval and Release

Step: Validate Line Item, Approve Line Item, Release Line Item

### Determine Process Administrator

Determine process administrators of process instance based on status. This rule is used from a workflow used as part of insight to action capability in Process Visibility.

Rule Project: Base Purchase Requisition Rules for SAP ERP

Rule Service Name: Determine Process Administrator

Input: Process Status (Structure data type)

ATTRIBUTE	TYPE	DESCRIPTION
Sub Status	String	Status of an instance available in process visibility. Possible values Failed, Suspended, Risk and Overdue

Output: Process Administrator Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
First Name	String	First name of the process administrator
Last Name	String	Last name of the process administrator.
Email	String	Email of the process administrator.

Rule Definition

Possible to use various operators to evaluate the conditions.

Name: DetermineProcessAdmin Result: ProcessAdminDetails  
 Label: Determine Process Administrators Status: Inactive  
 Description: Determine Process Administrators to notify when an approval workflow instance is Failed ,  
 Suspended , Risk or Overdue. Created On: Oct 5, 2020  
 HR Policy: First Match

## Decision Table

## Decision Table

IF	Then		
Process Status.Sub Status	First Name	Last Name	Email
= 'OVERDUE'			
= 'PROCESS_FAILED'			
= 'PROCESS_SUSPENDED'			
= 'THRESHOLD_VIOLATION'			

Process: Notify Procurement Administrator

## Process Visibility

Process visibility enable Process Owners and Process Operators to gain real time visibility into processes and key process performance indicators. Process visibility capability in SAP Workflow Management enable customers to gain out of the box process visibility into their deployed processes. Please refer [help documentation](#) for more details.

### Purchase Request Approval and Release

Purchase Request Approval and Release Process content package provide out of the box visibility on all the deployed process variants in SAP Workflow Management. A process owner or line of business expert will be able to enhance the visibility scenario.

### Configure Visibility Scenarios - Purchase Requisition Approval and Release

1. Go to Process Flexibility Cockpit -
2. Select Purchase Requisition Approval and Release using SAP Workflow Management.
3. Click Visibility Scenarios and Select Purchase Request Approval and Release

Please go through [help documentation](#) how to model a visibility scenario.

### Insight to Actions - Purchase Requisition Approval and Release

Actions in process visibility enable business users or system to trigger workflows based on various status of a process instance. These workflows trigger specific actions like email notification, restart an approval process or release a line item. System triggered actions are configured using a technical user and user triggered actions are using the process visibility user context.

1. Go to Configure Visibility Scenarios
2. Select Purchase Requisition Approval and Release
3. Select Actions tab

Please refer [help documentation](#) for more details.

**Action Name:** Notify Process Admin

**Type:** System

A system triggered action when the approval workflow status changes to Failed, Suspended, Overdue or Threshold violation. The action will trigger a workflow to determine the Process Administrators and send an email notification. Process Administrators are determined using a business rule Determine process administrators.

Properties

PROPERTY NAME	PROPERTY VALUE
ID	NotifyProcessAdmin
Type	Trigger Workflow SAP Workflow Service
Sentiment	Neutral
Trigger Type	System
Destination	Workflow
Workflow Definition ID	NotifyProcurementAdministrator
Start context	{ "Instanced": "{WorkflowInstanced}", "Action": "system", "State": "{SC_State}", "Status": "{SC_Status}", "SubStatus": "{SC_SubStatus}", "Administrator": "Administrator" }

Conditions

ATTRIBUTE	OPERATOR	VALUE
SubStatus	Equal to	Process Failed
SubStatus	Equal to	Process Suspended
SubStatus	Equal to	Threshold Violation
SubStatus	Equal to	Overdue

**Action Name:** Restart Approval Process

**Type:** User

A business user can restart the approval process, when the current approval process status changed to Failed, Suspended, Overdue or Threshold violation.

Properties

PROPERTY NAME	PROPERTY VALUE
ID	Restart_Approval_Process
Type	Trigger Workflow SAP Workflow Service
Sentiment	Neutral
Trigger Type	User
Destination	WorkflowActions
Workflow Definition ID	RestartApprovalProcess
Start context	{ "Instanced": "{WorkflowInstanced}", "ItemNumber": "{ItemNumber}", "ID": "{ID}" }

Conditions

ATTRIBUTE	OPERATOR	VALUE
SubStatus	Equal to	Process Failed
SubStatus	Equal to	Process Suspended
SubStatus	Equal to	Threshold Violation
SubStatus	Equal to	Overdue

Action Name: Release Line Item

Type: User

A business user can release a line item in SAP ERP, when the current approval process status changed to Failed, Suspended, Overdue or Threshold violation.

Properties

PROPERTY NAME	PROPERTY VALUE
ID	Release_Line_Item
Type	Trigger Workflow SAP Workflow Service
Sentiment	Positive
Trigger Type	User
Destination	WorkflowActions
Workflow Definition ID	ReleaseLineitem
Start context	{ "InstanceId":"{WorkflowInstanceId}", "ItemNumber":"{ItemNumber}", "ID":"{ID}" }

Conditions

ATTRIBUTE	OPERATOR	VALUE
SubStatus	Equal to	Process Failed
SubStatus	Equal to	Process Suspended
SubStatus	Equal to	Threshold Violation
SubStatus	Equal to	Overdue

Action Name: Delete Line Item

Type: User

A business user can delete a line item in SAP ERP, when the current approval process status changed to Failed, Suspended, Overdue or Threshold violation.

Properties

PROPERTY NAME	PROPERTY VALUE
ID	Delete_Line_Item
Type	Trigger Workflow SAP Workflow Service
Sentiment	Negative
Trigger Type	User
Destination	WorkflowActions
Workflow Definition ID	CancelAndDeleteLineItem
Start context	{ "InstanceId":"{WorkflowInstanceId}", "ItemNumber":"{ItemNumber}", "ID":"{ID}" }

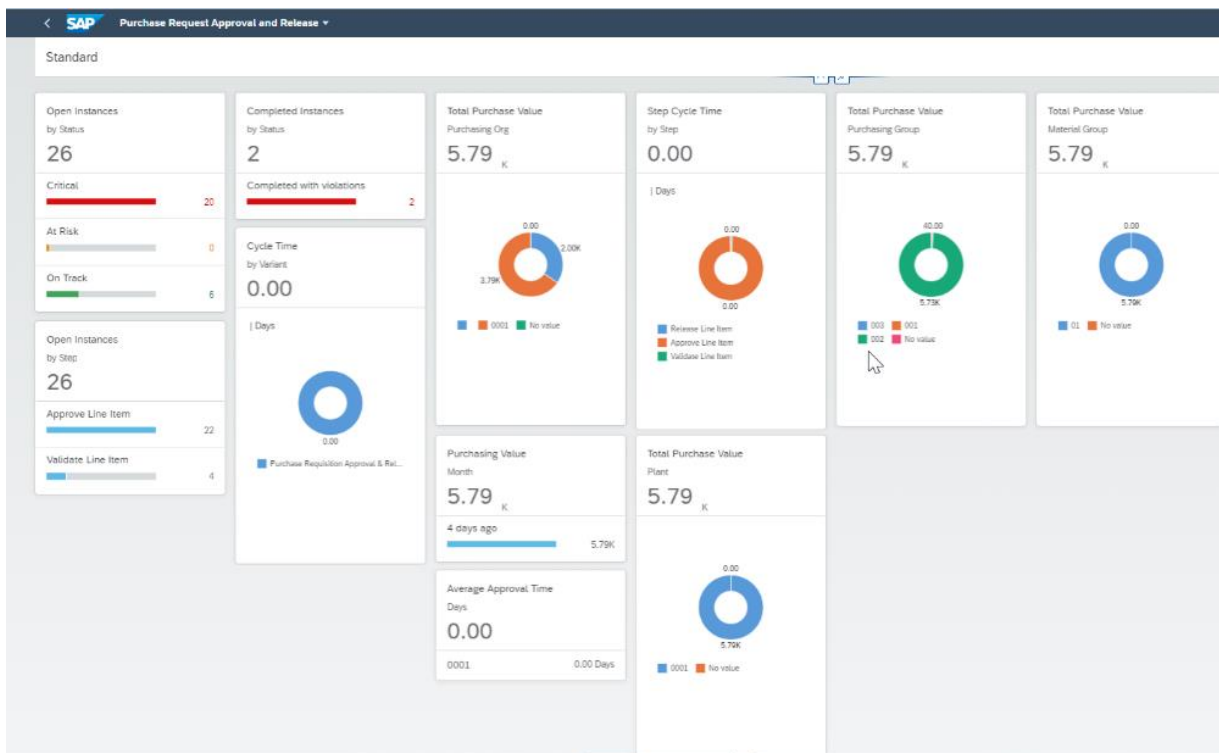
Conditions

ATTRIBUTE	OPERATOR	VALUE
SubStatus	Equal to	Process Failed
SubStatus	Equal to	Process Suspended
SubStatus	Equal to	Overdue
SubStatus	Equal to	Overdue

## Access Process Workspace - Purchase Request Approval and Release

1. Go to Process Flexibility Cockpit
2. Select Purchase Requisition Approval and Release using SAP Workflow Management
3. Click Live Process Insights Purchase Request Approval and Release

Please go through [help documentation](#) how to access process workspace.



## Configure Visibility Scenarios – ProcureToOrder (optional)

1. Go to Process Flexibility Cockpit
2. Select Purchase Requisition Approval and Release using SAP Workflow Management.
3. Click Visibility Scenarios and Select **ProcureToOrder**
4. This scenario gives an end-to-end visibility of Purchase Requisition line-item approvals, Purchase Requisition Header approvals and Purchase order creation all in one view

Please go through [help documentation](#) on how to model a visibility scenario.

## Access Process Workspace - ProcureToOrder

1. Go to Process Flexibility Cockpit
2. Select Purchase Requisition Approval and Release using SAP Workflow Management
3. Click Live Process Insights ProcureToOrder

Please go through [help documentation](#) how to access process workspace.

