

SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

# Configuration Guide

## Sample Sales Order Approval Extension with flexible workflow

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## Overview

This document provides information about how to configure the Sample Sales Order Approval Extension with the flexible workflow capability of SAP Business Workflow Process. Business Process Experts and Process Operators are the target users of this document.

Sample Sales Order Approval Extension with the flexible workflow capability of SAP Business Workflow Process content package for S/4HANA enables to automate sales order approvals in a flexible and transparent way. When a user submits a request to create a Sales Order in SAP S/4HANA, a Flexible Workflow is triggered and starts an extension flow in SAP Workflow Management based on business conditions configured by process expert in Manage Workflows. On approval, Sales order status is updated in SAP S/4HANA system.

Salient features of this content package are mentioned below:

- Plug and Play with SAP S/4HANA without any additional development
- Automatic email notification to parties involved
- Business Rules provides flexibility in determining approvers
- Out-of-the-box visibility into key process performance indicators

# Live Process Artifacts

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

## Workflow

A workflow template is a set of business activities and tasks that, once completed, fulfills an organization goal. The Sample Approval Extension for SAP S/4HANA OP Sales Orders package contains a sequence of steps in a workflow template to approve Sales Orders created in S/4HANA.

A business process can be broken down logically into smaller parts. For example, an activity to determine the approvers, an approval task itself, notifications activities, and handle the approval result.

### Import Sample Approval Extension for SAP S/4HANA OP Sales Orders Content and Configure Workflow

1. Import content package **Sample Approval Extension for SAP S/4HANA OP Sales Orders**. Please refer the standard help document about [how to import a content package](#).

## 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 that enables customers to centrally manage all decisions. Please go through the [Decision Management capabilities](#) in SAP Workflow Management.

Sample Approval Extension for SAP S/4HANA OP Sales Orders enable customers to configure decisions to gain flexibility to

1. Determine Approver

Please go through [Manage Decisions](#) application in SAP Workflow Management.

### Determine Approver

This decision is used in the Approval process step to determine the potential approver(s) based on different Sales Order attributes.

#### Input and output

**Rule Service Name:** Determine Approver

**Input: Sales Order (Structure data type)**

ATTRIBUTE	TYPE	DESCRIPTION
Transaction Currency	String	The currency that applies to the sales document
Sales Group	String	A group of sales people who are responsible for processing sales of certain products or services
Sales Office	String	A physical location (for example, a branch office) that has responsibility for the sale of certain products or services within a given geographical area
Sales District	String	
Overall SD Process Status	String	The processing status of the entire sales document
Sales Organization	String	An organizational unit responsible for the sale of certain products or services.
Distribution Channel	String	Organizational channel through which goods or services reach customers, for example, wholesale, retail, and direct sales
Organization Division	String	A way of grouping materials, products, or services. The system uses divisions to determine the sales areas and the business areas for a material, product, or service
Total Net Amount	Number	The net value of the sales document in document currency
Sold To Party	String	The customer who orders the goods or services. The sold-to party is contractually responsible for sales orders
Approval Step	String	Approval Step
Sales Order	String	The number that uniquely identifies the sales document
Sales Order Type	String	The sales and distribution document category (sales order, for example)
Sales Document Type	String	Classifies types of sales document that require different processing by the system.

**Output: Approver Details**

ATTRIBUTE	TYPE	DESCRIPTION
User Id	String	User ID (comma separated list) of the individual approvers
Unit Of Time	String	Unit of time of due duration

Due Duration	Number	The task due duration target by when the Approval (user task) needs to be completed
Due Duration Reference	String	This is either 'Task' or 'Workflow'. The duration will be calculated based on the start time of either the entire process (Workflow), or the current Approval Task (Task)
Email	String	Email address of the approver or approvers
User Group	String	The user group who can approve the step in the process

Rulesets

To determine approvers two Rulesets are working sequentially. Rulesets are given below.

1. **Due Date Determination Policy:** Policy to determine the due date for the approval step.  
Task Due Date

**Determine Task Due Date** 🔍

**General Information:**  
Decision: Determine Approver  
Status: Revised Content

**Description:**  
Determine the due date duration for each approval step of the sales order approval process. Based on the reference to determine the due date and the due duration, the approval task's deadline is calculated automatically.

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**Text Rule**

▼ If

Sales Order.Sales Organization = '1710'

Then

Duration:

Unit of Time:

Duration Reference:

☑ Else

Duration:

Unit of Time:

Duration Reference:

2. **Approver Determination Policy:** Determine approver for approval step in the process based on the conditions like sales organization, sales order type, total net amount of order, transaction Currency, sold to party.

**Rule Definition:** Determine Approver

**Determine Approver**

**General Information:**  
 Decision: Determine Approver  
 Status: Revised Content

**Description:**  
 Determine approver for each approval step in the Sales Order approval process based on the conditions like sales organization, sold to party, sales document type, total net value of order

**Decision Table**

If						Then	
Sales Organization	Sales Order Type	Total Net Amount	Transaction Currency	Sold To Party	Approval Step	User Group	E
= '1710'	= 'OR'	< 500	= 'USD'	= '17100006'	= 'Sales Ma...	'SO_APPR_...	
= '1710'	= 'OR'	> 500	= 'USD'	= '17100006'	= 'Inventory...	'SO_APPR_...	
= '1510'	= 'OR'	< 1000	= 'USD'	= '17100006'	= 'Credit Ma...	'SO_APPR_...	
= '1510'	= 'OR'	> 1000	= 'USD'	= '17100006'	= 'Finance A...	'SO_APPR_...	
MATCHES '*'	MATCHES '*'	>= 0	MATCHES '*'	MATCHES '*'	MATCHES '*'	'SO_APPR_...	

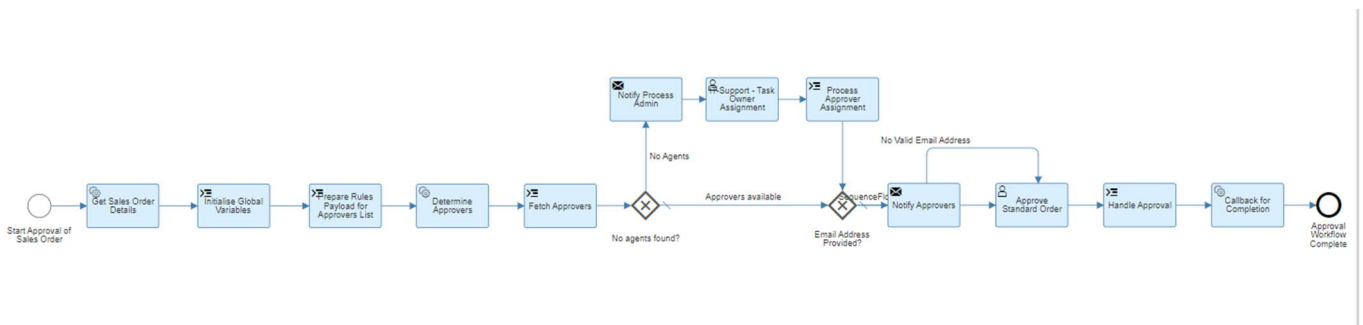
## Where used

In Process Flow before User Task **Approve Sales Order**

## Deploy Workflow module

Use Public SAP github to download the project. Extract the project and import them into your SBAS. The original Workflow overs a flexible agent determination over a decision table. Please provide the respective data for the decision table and activate the rules service.

The workflow template contains two user decisions. One if there is nobody found in the Rules Service approver determination for an administrator to define the responsible agent and one approval task.



In the Preparation for the Rules Payload Script Task add your Rules Service ID in the service task and deploy the workflow.





about using the Visibility Dashboard.

The screenshot shows the SAP 'Configure Visibility Scenarios' interface for the 'Sales Order Approval Extension (com.sap.content.Sales\_Order\_Approval\_Extension)'. The interface includes a top navigation bar with 'Save' and 'Activate' buttons, and a main area with tabs for 'General', 'Processes', 'Correlation', 'Phases', 'State', 'Status', 'Attributes', 'Actions', and 'Performance Indicators'. The 'Processes' tab is active, showing a list of processes on the left and two tables on the right: 'Events' and 'Context'.

**Events Table:**

Event Name	
Start Approval of Sales Order Started	✎
Approve Standard Order Created	✎
Approve Standard Order Completed	✎
IT-Support - Task Owner Assignment Created	✎
IT-Support - Task Owner Assignment Completed	✎
SAP S/4HANA Extension Workflow Sales Order Cancelled	✎
SAP S/4HANA Extension Workflow Sales Order Suspended	✎
SAP S/4HANA Extension Workflow Sales Order Resumed	✎
Approval Workflow Complete Completed	✎

**Context Table:**

Name	ID	Path	Data Type	Description	
Sales Order Approval Reason	SOApprovalReason	SOApprovalReason	String		✎
Transaction Currency	TransactionCurrency	TransactionCurrency	String		✎
Total Net Amount	TotalNetAmount	TotalNetAmount	String		✎
Overall Status	OverallStatus	OverallStatus	String		✎
Sales Area	SalesArea	SalesArea	String		✎
Document Date	DocumentDate	DocumentDate	String		✎
Customer Reference	CustomerReference	CustomerReference	String		✎
Sold-to Party	SoldToParty	SoldToParty	String		✎
Sales Order	businesskey	businesskey	String	Sales Order ID	✎

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

To get a comprehensive view on Flexible Workflow approvals in addition, you can add your flexible workflow scenario to the Process Visibility Scenario.

This screenshot shows a close-up of the 'Add' button (+) in the SAP interface. A dropdown menu is open, listing several options: 'Add Observed Process', 'Add Workflow', 'Add Process Template', 'Add SAP Business Workflow' (which is highlighted in yellow), and 'Add Qualtrics Survey'. The background shows a list of processes, including 'ZWFL\_DEMO\_' and 'Purchase Requ'.

Correlate the Flexible and the Extension Workflow on the Sales Order ID.

# Flexible Workflow configuration

For your Sales Order Extension Scenario provide a Workflow configuration in Manage Workflow Application. You can add several workflow definitions. Be aware the first definition which fits regarding start conditions will run and afterwards not any further definition. You can also define several levels of approvals by adding steps and the conditions to your workflow definition.

The screenshot shows the SAP Manage Workflow configuration interface for a workflow named "Sales Order Extension Workflow 20220106". The interface is divided into several sections:

- Header:** Shows the workflow name "Sales Order Extension Workflow 20220106".
- Properties:** Includes a description: "Sales Order extension in Case of Sales Org is 1710 an external approver is required and agent determination is provided by a central Business Rules Service on BTP". It also has fields for "Valid From" and "Valid To" with date pickers.
- Start Conditions:** A section titled "Only start the workflow if all of the following preconditions are met:" with a dropdown menu showing "Sales organization of sales order is" and a value of "1710". There is a "Create Alternative Preconditions" button.
- Steps:** A table titled "Workflow Steps" with columns for Type, Name, Recipients, and Step Conditions. It contains one step: "1. Extension Step for Sales Order Workflow" with recipients "Determined externally".

At the bottom right, there are "Save" and "Cancel" buttons.

In my case more extensibility is required (in this example Agent determination needs to include external approvers which have no User in the S4 System for Sales Organisation 1710 and is defined via a complex decision table dependent on Sales Order Header Data), define a workflow step with the extension activity from your scenario and pick your deployed workflow from your BTP subaccount.



# Email configuration in SAP S/4HANA

For the Sales Order Approval Scenario in S/4 HANA Flexible Workflow are 4 Email-Templates available:

SD\_SLS\_SO\_DEADLINE\_EMAIL\_TMPL

SD\_SLS\_SO\_REJECT\_EMAIL\_TMPL

SD\_SLS\_SO\_RELEASE\_EMAIL\_TMPL

SD\_SLS\_SO\_REWORK\_EMAIL\_TMPL

Please configure the Output Management according to the [documentation](#).