

SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

## Configuration Guide

SAP S/4HANA Enterprise Portfolio and Project Management -  
Project Approval and Release using SAP Build Process  
Automation or SAP Workflow Management

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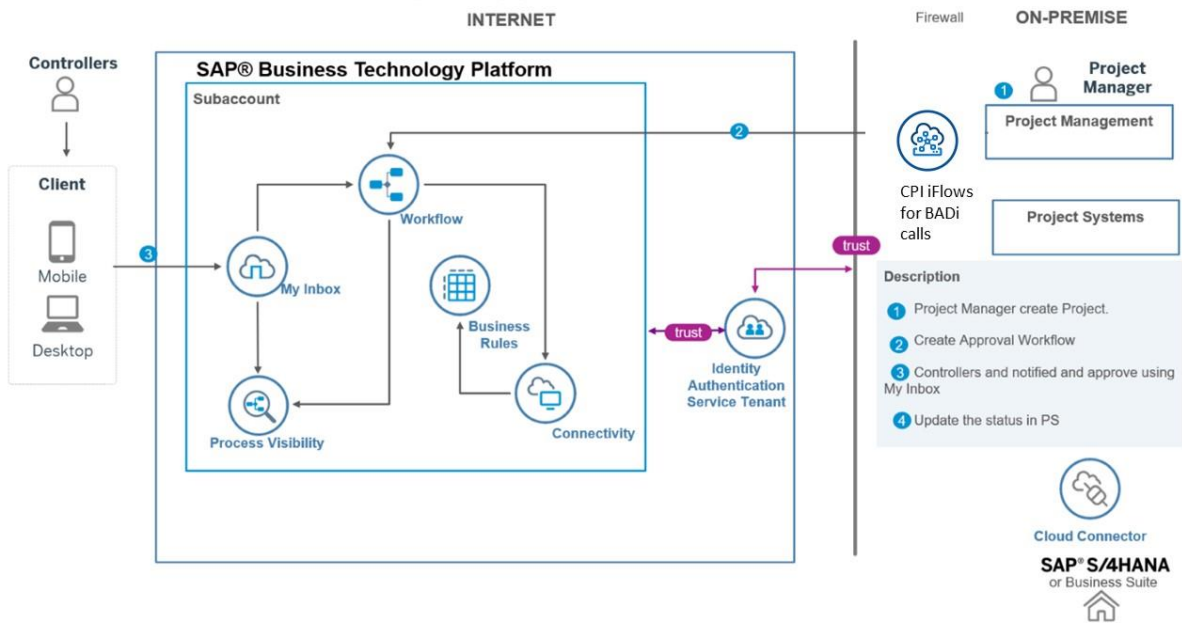
# Overview

This document provides information about configuration steps to consume the package **Project Approval and Release** using SAP Build Process Automation or SAP Workflow Management. The main audience of this document are Sales and Distribution Experts, Credit Controllers, Developers and Product Owners.

The package enables communication between project managers (using SAP Portfolio and Project Management) and controllers (using SAP Controlling and Project System) allowing review and confirmation of project creation. A project manager creates a project in SAP Portfolio and Project Management with appropriate structures and triggers transfer to SAP Project Systems by changing status “flag for transfer”. The project needs to be reviewed in SAP Project Systems, approved by the controllers and other required approvers and release in Project systems. Some features are:

- Configurable project controller / approver determination
- Approval for creation of projects by approvers using My Inbox
- Gain visibility on project creation flow using SAP BTP Workflow Management process visibility capability.

## SAP S/4HANA PPM – Project Approval



# Artifacts

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

## Process

A process template is a set of business activities and tasks that, once completed, fulfills an organization goal. The S/4HANA Enterprise Portfolio and Project Management - Project Approval and Release package contains the following process template:

**Project Approval Default** – Project Approval Default Template.

A business process can be broken down logically into smaller parts or steps. Each process step is a collection of activities to perform a specific task. For example, an approval process step can contain activity to determine the approvers, approval task, notifications, and handle the approval result. **Table 1** represents the list of process steps/sub flows available to be used in **<scenario name>**.

**Table 1. Process Steps**

Process Steps	Cardinality	Detailed Description
ApproverReview	0..1	The process step includes activities in case if a Project Creation requires a manual review. A specific approver is determined by the related Rule Set which must be predefined. If the rule does not identify a specific approver, the step includes tasks to inform a predefined workflow support user to resolve the conflict.
AutomaticProjectRelease	0..1	This process step includes activities to automatically release a project in the SAP Project System. The project can only be automatically released if the required custom functional module is implemented. If yes, the functional module can trigger a CPI flow which sets the approved status for the project without the need of manual activities.
ControllerReview	1..1	The process step includes activities in case if a Project Creation requires a manual review. The controller is determined by the related Rule Set which must be predefined. If the rule does not identify a specific approver, the step includes tasks to inform a predefined workflow support user to resolve the conflict.
ManualProjectRelease	0..1	The process step includes activities in case if a Project Creation requires a manual release. A specific person-in-charge is determined by the related Rule Set which must be predefined. If the rule does not identify a specific person, the step includes tasks to inform a predefined workflow support user to resolve the conflict.

### Sample Conditions to directly start a variant workflow

```
{  
  "projectDetails": {  
    "PROJECT_EXT": {
```

```
"PROJECT_ID": "PROJ001",
"PRIORITY": 0,
"CONSTRAINT_TYPE": "2",
"START_DATE_FIX": "2021-08-19",
"CALENDAR_ID": "",
"CONSTR_TYPE_FIN": "",
"FINISH_DATE_FIX": "0000-00-00",
"PRO_TYPE": "Y00000000000001",
"CAUSE": "",
"GROUPING": "",
"SEARCH_FIELD": "",
"MASTER_LANGUAGE": "D",
"TEMPLATE_ADMIN_ID": "",
"CUSTOMER_ID": "",
"SOLD_TO_PARTY_ID": "",
"DESCRIPTION": "project creation example",
"RESP_ORG_UNIT": 0,
"STAT_PROFILE_PRO": "",
"ACT_WRK_EFFORT_EXT": 0,
"ACT_WRK_UNIT_EXT": "H",
"PERIODTYPE": 0,
"ALLOCATION_UNIT": "",
"LOCATION": "",
"FORECASTED_START": "0000-00-00",
"FORECASTED_FINISH": "0000-00-00",
"SORT_OVERALL": "0",
"ACTUAL2PLAN": "",
"RSTR_VIS": "",
"NONSEQ_PHASES": "",
"EARLIEST_LATEST_DATES": "",
"EXTENDED_ATTRIBUTES": {
  "EA_DUMMY": ""
},
"SCHEDULE_TYPE": "X",
"RTA_FLAG": "",
"GUID": "AFBWhNVFHuyAkmg5iGS4KQ==",
"VERSION_NUMBER": "",
"SCHEDULED_START": "2021-08-19",
"SCHEDULED_FINISH": "2021-08-19",
"CREATED_BY": "S4USER",
"CREATED_BY_NAME": "example",
"CREATED_ON": "2021-08-19",
"CHANGED_BY": "S4USER",
"CHANGED_BY_NAME": "example",
"CHANGED_ON": "2021-08-20",
"PRO_CATEGORY": "1",
"TEMPLATE_ADMIN_NAME": "",
```

```

"TEMPLATE_ID": "",
"RELEASE_DATE": "0000-00-00",
"RESCHEDULE": "",
"LAST_CHANGE_DATE": "2021-08-20",
"LAST_CHANGE_TIME": "09:22:57",
"LAST_CHANGED_BY": "S4USER",
"LAST_CHANGED_BY_NAME": "example",
"PRO_TYPE_TEXT": "SAP Workflow Management",
"CAUSE_TEXT": "Specify reason",
"OBJNR": "AFBWhNVFHuyAkmg5iGS4KQ==",
"ISTAT": "I1700",
"ESTAT": "",
"STSMA": "",
"SPRAS": "E",
"TXT04": "CRTE",
"TXT30": "Created",
"STATTXT": "Created - Transferred - Assigned",
"CUSTOMER_NAME": "",
"SOLD_TO_PARTY_NAME": "",
"GUID_CHAR": "00505684D5451EEC809268398864B829",
"CALENDER_TEXT": "",
"RESP_ORG_U_SHORT": "",
"RESP_ORG_U_STEXT": "",
"ACT_WRK_UNIT_EXT_MSEHT": "Hour",
"ACT_WRK_UNIT_EXT_MSEHL": "Hour",
"THRESHOLD_TEXT": "",
"SEVERITY_TEXT": "Not Set",
"AREA": "",
"AREA_TEXT": "",
"LOCATION_TEXT": "",
"DURATION": 1,
"DURATION_UNIT": "TAG",
"DURATION_UNIT_TEXT": "Days",
"VERSION_COMMENT": ""
},
"CREATED_BY_EMAIL": " example@email.com"
}
}

```

## Process Variants

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, it is possible that there is a variant which executes two approvals with automated release or another one which excludes the automatic release step to always force a manual release of a Project.

Please refer [help documentation](#) about how to import content packages and configure a process variant.

The screenshot displays a software interface for configuring a process variant. At the top left, the title bar reads "Project Approval Default" with navigation arrows. On the top right, there are buttons for "Undo", "Redo", "Save", and "Activate".

On the left side, a panel titled "Available Steps (4)" lists four process steps, each with a checkbox and a small icon:

- ApproverReview (with a checkmark icon)
- AutomaticProjectRelease (with a plus icon)
- ControllerReview (with a checkmark icon)
- ManualProjectRelease (with a document icon)

The central workspace shows a flow diagram. It starts with a green circle at the top, followed by a downward arrow to a box labeled "Controller Review" (which has a checkmark icon and a lock icon). Another downward arrow leads to a box labeled "ManualProjectRelease" (which has a document icon). A final downward arrow ends at a red circle at the bottom.

On the right side, a panel titled "Process Variant Properties" contains the following fields:

- Name: Project Approval Default
- Process: Project Approval Default
- Description: projectApprovalDefault

Below the diagram, there are zoom controls (a four-way arrow icon, plus and minus icons, and a "100%" label) and a blue arrow icon at the bottom right corner of the workspace.

## Import Project Approval and Release and Configure Process Variants with SAP Build Process Automation

1. In the [SAP Build Process Automation Store](#), search for live process package Project Approval and Release and import the same. This content package has one process template and process variant(s) for that template.
2. In the Application Development [Lobby](#), click to open the package with name Project Approval and Release. This opens the package in a new tab/window.
3. Click the + icon next to the process template to create a new process variant.
4. Enter Name of the new Process Variant (ex, Two Step Approval).
5. Click the newly created Process Variant tile to save and activate the process variant.
6. The process variant has a default implementation with two steps and at least one level of approval.
7. It is possible to remove steps like “Approval for Project Approval and Release” from a process variant only if there are multiple approvals. Please note that whether a step is mandatory or optional, and how many a times any step can be used within a variant, are dependent on the constraints defined on the process steps.
8. Save and activate the variant. A successful activation will create a new workflow definition in the account that can be viewed in the [Monitor Processes and Workflows app](#).

## Import Project Approval Content and Configure Process Variants with SAP Workflow Management

1. In Process Flexibility Cockpit app, search for content package Project Approval and import the same. 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. Open content package in Flexibility Cockpit and click Process Variants tile.
3. Click New Process Variant.
4. Enter Name of the new Process Variant (ex, default) and select “ProjectApprovalDefault” as Process.
5. Click the newly created Process Variant tile to save and activate the process variant.
6. The process variant has a default implementation with two steps.
7. It is possible to remove steps like “AutomaticProjectRelease” from a process variant. Please note that whether a step is mandatory or optional, and how many a times any step can be used within a variant, are dependent on the constraints defined on the process steps.
8. 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 app in SAP Fiori Launchpad.
9. Update the Determine Process Variant Policy and include the newly created workflow definition ID in the rule

### Step - ApproverReview

This is an optional process step that needs to be configured in a custom process variant, different than the default one. The step includes activities to determine an additional project approver if required by the



customer. The approver must manually review and release the project.

1. Cardinality of step: 1..N

#### Step - ControllerReview

The process step includes activities to determine a process controller and provides task to review a project. This is a required process step to review and approve a project request before it is release in SAP Project System.

1. Cardinality of step: 0..1

#### Step – ManualProjectRelease

The process step provides a UI to confirm that the project controller has manually updated the project status to released in SAP Project System after successful approval of the project in the workflow. This step is required to provide feedback and remind the process controller that there are manual activities at the end of the workflow. After confirmation, the project controller is notified.

1. Cardinality of step: 0..1

#### Step – AutomaticProjectRelease

The process step contains activities to automatically update the project in the SAP Project System after successful approval of a project in the workflow. This makes manual activities and feedback obsolete but required configuration and implementation effort by the customer when the workflow is set up.

1. Cardinality of step: 0..1

## 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 Build Process Automation or SAP Workflow Management has business rules capabilities that enables customers to centrally manage all decisions. Please go through the [business rules capabilities](#) in SAP Build Process Automation or SAP Workflow Management.

Project Approval enable customers to flexibly configure decisions to gain flexibility to

1. DetermineStartConditions
2. DetermineProjectController
3. DetermineProjectApprover
4. DetermineProcessVariant

#### DetermineStartConditions

Determine which process Variant to start

**Rule Service Name:** Determine Start Conditions

**Input:** Project (Structure)

The project object represents project details and master data about a project. It can be used as input parameters to determine a project approver or controller.

ATTRIBUTE	TYPE	DESCRIPTION
Company Code	String	Company Code
Business Area	String	Business Area
Controlling Area	String	Controlling Area
Profit Center	String	Profit Center
Functional Area	String	Functional Area
Plant	String	Plant
Location	String	Location

**Output: Start Condition (Structure)**

Start Condition

ATTRIBUTE	TYPE	DESCRIPTION
Variant ID	String	Variant ID
User ID	String	User ID
Group ID	String	Group ID
Email	String	Email
Escalation Time	String	Escalation Time in Hours
User Status	String	User Status that needs to be set in PS system when project is released automatically (optional)

**Rule Definition**

The rule service uses the rule DetermineStartConditions to determine the predefined start conditions and environmental variables

**Where used**

Step:

1. StartWorkflow

DetermineProjectController

To rule service is used to identify the Project Controller.

**Rule Service Name:** Determine Project Controller

**Input:** Project (Structure)

\*similar as DetermineStartConditions

**Output:** User (Structure)

The user object always represents a person.

ATTRIBUTE	TYPE	DESCRIPTION
User ID	String	User ID that is unique identifier in the BTP
Group ID	String	E-Mail address, to contact the user
Email	String	A group ID where the user belongs to

### Rule Definition

The rule service uses the rule DetermineProjectController to determine the details for the Project Controller such as email address, Group ID, and User ID.

### Where used

Step: ControllerReview

### DetermineProjectApprover

The rule service is used to identify the necessary approvers for a project, based on the project details.

**Rule Service Name:** Determine Project Approver

**Input:** Project (Structure)

\*similar as DetermineStartConditions

**Output:** User (Structure)

\*similar as DetermineProjectController

### Rule Definition

The rule service uses the rule **DetermineProjectApprover** to determine the details for the Project Controller such as email address, Group ID, and User ID.

### Where used

Step: ApproverReview

## Process Visibility

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

**Project Approval** process content package provide out of the box visibility on all the process variants in SAP Build Process Automation or SAP Workflow Management. Line of business expert will be able to enhance the visibility scenario to their requirements.

### Configure Visibility Scenarios in SAP Build Process Automation

1. Go to the Application Development Lobby.
2. Select Project Approval and Release Project.
3. Click to open Project Approval and Release scenario.
4. Click Activate button.

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

### Configure Visibility Scenarios in SAP Workflow Management

1. Go to Process Flexibility Cockpit.
2. Select **Project Approval** tile.
3. Click Visibility Scenarios tile.
4. Select Project Approval scenario.

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

### Access Process Workspace in SAP Build Process Automation

1. The process visibility scenario can be accessed using SAP Launchpad Service. Refer to the help document for [creating UI applications on central SAP Fiori Launchpad](#) for SAP Build Process Automation.
2. Once you have added the applications process Visibility Scenario Instances (with app ID com.sap.spa.pv.instances) and Visibility Scenario Dashboard (with app ID com.sap.spa.pv.ovp), follow the below steps to add a tile to access the Project Approval and Release dashboard.
  - a. Navigate into “Visibility Scenario Dashboard”.
  - b. On the screen that opens, choose Create a Local Copy.
  - c. To use custom texts, choose Edit and adapt the texts in the General section.
  - d. You can use a custom title, description, and subtitle for the tile.
  - e. Choose the Navigation tab.
  - f. Under the Intent section, ensure that the value in the Action tab is unique for every application.
  - g. Under the Parameters section, provide the following:

Parameter Name	Parameter Value
----------------	-----------------

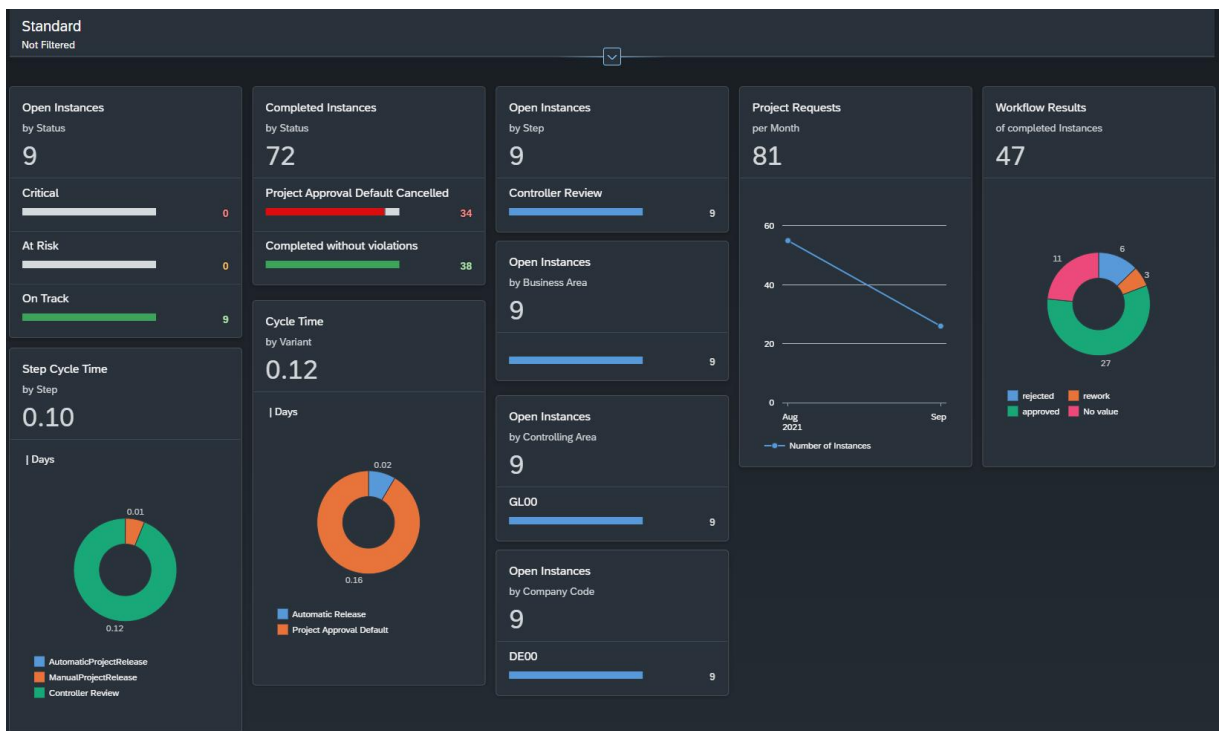
Name	scenariold
Default Value	com.sap.content.projectapproval
Required	Toggle to Yes

- h. Choose Save.
- i. Assign the local copy to a group and make sure that they're visible to users. For more information, see [Assign Apps to a Group and to a Catalog](#) and [Assign Content to a Role](#).

3. Once created, select app that corresponds to "Project Approval and Release".
4. User will see the process visibility dashboard.

### Access Process Workspace in SAP Workflow Management

1. Go to Process Flexibility Cockpit
2. Select **Project Approval**
3. Click Live Process Insights **Project Approval**
4. User will see the below detailed process visibility dashboard.



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